MID TERM APPRAISAL
OF
THE NINTH FIVE YEAR PLAN
(1997-2002)

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PLANNING COMMISSION
GOVERNMENT OF INDIA
New Delhi
(October 2000)

CONTENTS

CHAPTER 1

STATE OF THE ECONOMY AND THE PLAN

The Background

1. The Ninth Five Year Plan (1997-2002) was conceived against a backdrop of three consecutive years of high growth when the economy grew at an average rate of 7.2 per cent. The Approach Paper presented to the National Development Council (NDC) in February 1997 therefore proposed a growth target of 7 per cent for the Ninth Plan, which was accepted. However, the fall of the first United Front (UF) Government in 1997 and the second UF Government in 1998 led to a delay in finalising the Plan. The Ninth Plan was finally approved by NDC only in February 1999. It was evident by then that economic growth had slowed down to 5 per cent in 1997-98 and that recovery may also take time. Recognising the loss of momentum in the first year of the Plan, the growth target for the Ninth Plan proposed to the NDC was reduced to 6.5 per cent, which required an average growth of about 7 per cent in the last four years.

2. The state of the economy at the present stage shows many signs of strength, but also some looming problems. Fortunately, economic growth has accelerated from the low level of 5 per cent in 1997-98 to 6.8 per cent in 1998-99 and 6.4 per cent in 1999-2000, and the trend is expected to continue. On present prospects, the overall growth performance may be marginally short of what is needed to achieve the Ninth Plan target for the five years. However, this performance has to be evaluated in the context of a series of exceptional circumstances in recent years. The East Asian crisis in 1997 had a depressive effect on foreign investment in India and also on our potential export markets. The economic sanctions imposed by some countries in 1998 created some uncertainty initially, though investor confidence was quickly restored. The situation in Kargil in 1999 and the sharp increase in oil prices in 2000 were two other developments. The performance of the economy in the face of all these developments has been commendable and reflects the resilience that it has acquired. Through all these developments, the Government has pursued the objective of deepening and broadening the economic reforms.

3. In many other dimensions also the economy has performed very well. The rate of inflation has been under control, with an average rate of inflation of 4.5 per cent compared with 8.6 per cent in the Eighth Plan period. The balance of payments has been comfortable and our foreign exchange reserves are at 7 months of imports. Domestic investor confidence has been high and external investor perceptions have also been favourable. New sectors of the economy, such as Information Technology, have shown truly exceptional dynamism and have the prospect of bringing substantial gains to the economy in future. Preliminary estimates based on data available for the first six months of the NSS full sample survey from July, 1999 to June, 2000 suggest that poverty has declined but the decline is much less than what was targeted. There are encouraging developments in the social sector. Population growth is also slowing down. Enrollment rates for girls is increasing steadily.

4. However, the economy also faces certain pressing problems which have come to the surface in recent years. Although the economy is likely to achieve the aggregate growth target, there are significant short-falls in some key sectors, which could lead to unsustainability of the growth process. The acceleration of growth in the economy in recent years has also been regionally differentiated. Some of the poorest States of the country are growing at less then half the rate of the faster growing States. Resource generation in both the Centre and the States has been below target forcing a heavy reliance upon borrowing, much more than was envisaged in the Plan. There is significant under-investment in the economic and social infrastructure. The effectiveness of public expenditure in many areas is also low, which has the implication that resource mobilisation alone is not the solution. Agricultural growth has slowed down, though food grain stocks are comfortable and there has been considerable diversification in agricultural production. The recent rise in international oil price and the uncertainties with oip prices in future is a matter of concern in the short run. The impact of these deviations from the Plan targets gets reflected in the shortfall that is likely to occur in the poverty reduction goal of the Plan.

5. In assessing the progress of the Plan over first three years of its operation, however, a serious problem has been encountered in the form of a substantial revision of the National Accounts Statistics (NAS) which forms the basis both of Plan formulation and of its monitoring. The targets and parameters specified in the Ninth Plan document are based on pre-revised National Accounts and are not directly comparable to the figures currently available from the revised National Accounts Statistics. Therefore, before any meaningful appraisal can be made of the state of the economy and the progress of the Plan, the targets and parameters of the Plan need to be suitably revised in order to make them consistent with the revised National Accounts Statistics. A description of the nature and magnitude of the revisions and a consistent revision

of the plan targets are given in the Appendix to this Chapter. In what follows, an attempt has been made to present both the original and the revised targets to preserve full comparability with the original Plan document.

Growth Performance in First Three Years

6. The growth rate of the economy during first three years of the Plan appears to be significantly below the target rate of 6.5 per cent per annum. In 1997-98 the economy was estimated to have grown only at 5 per cent, which was a sharp reduction from the 7.5 per cent attained in the previous year. The principal cause of this reduction was the negative growth rate of Agriculture during 1997-98. The Manufacturing sector also witnessed a sharp decline in its growth just above 4 per cent as compared to the double-digit levels that had been attained during the previous three years. In 1998-99 the economy bounced back to record a growth of 6.8 per cent primarily on account of a sharp recovery in agricultural growth. The Manufacturing sector, however, continued to perform badly and registered a growth rate marginally below 4 per cent. In both these years, the Services sectors continued to perform well and prevented the GDP growth from slipping further.

7. For 1999-2000, the quick estimate by Central Statistical Organisation (CSO) indicates a growth rate of only 6.4 per cent. On this basis, the average growth rate for first three years of the Plan will be 6.1 per cent per annum. However, it is felt that the CSO estimates for 1999-2000 may be on the lower side since they have not fully taken into account the positive developments in the latter half of the year, particularly in Agriculture and Manufacturing. Planning Commission's estimates would place the growth for this year in the range of 6.7 per cent to 6.9 per cent, which would yield an average growth rate for the first three years of 6.2 per cent.

8. Although a 6.1 per cent or 6.2 per cent growth rate may appear low as compared to the Plan target of 6.5 per cent, it needs to be recognised that the change of base affects the comparison quite substantially. If the sectoral target growth rates given in the Ninth Plan are applied to the sectoral structure of the economy given in the new NAS (column 3 of Appendix Table-3), the target growth rate of aggregate GDP falls from 6.5 per cent to 6.3 per cent. Looked at this way, the likely achievement of 6.2 per cent average growth rate is not too far from the comparable target. Indeed, in order to achieve the 6.3 per cent growth target, the economy would have to grow at an average rate of 6.45 per cent per year during the final two years of the Plan - which is well within the realm of the possible.

9. However, such a comparison would not be in keeping with the spirit and intent of the Plan. The policy and investment recommendations of the Plan are based primarily on the desired sectoral growth rates, which in the aggregate yield the target GDP growth rate. A more useful exercise, therefore, would be to compare the actual sectoral growth rates with the sectoral Plan targets in order to examine the sectoral performance of the economy and thereby the feasibility of retaining the earlier targets. This comparison is presented in Table 1. As can be seen, two sectors namely Mining & Quarrying and Manufacturing have performed well below their targets during the first three years. Three other sectors - Agriculture & Allied Activities, Electricity, Gas & Water, and Other Transport - too have not fared particularly well relative to their targets.

TABLE 1

Rates of Growth in GDP and Its Components In in the first Three Years of the Plan (1997-2000)

(per cent)

Sectors	Plan (3 Years)	1997-2000 (3 years)	Difference
1. Agri & Allied	3.9	2.7	-1.2
2. Mining & Quarrying	7.2	2.9	-4.3
3. Manufacturing	8.2	4.9	-3.3
4. Elect,Gas&Water	9.3	7.7	-1.6
5. Construction	4.9	8.3	3.4
6. Trade	6.7	6.1	-0.6
7. Rail Transport	3.9	3.1	-0.8
8. Other Transport	7.4	5.6	-1.8
9. Communication	9.5	14.1	4.6
10. Financial Services	9.9	11.4	1.5
11. Public Administration	6.6	12.1	5.5
12. Other Services	6.6	8.8	2.2
Total GDP	**6.3**	**6.1**	**-0.2**

10. The poor performance of Mining & Quarrying has been on account of three main factors. First, domestic crude oil production has steadily declined over the recent years due to yield problems in the existing fields and due practically to no progress in bringing new fields into production. Second, iron ore production has stagnated due both to a slackening in world steel production and to a sharp decline in domestic steel demand during the two-year period 1997-99. Both these factors appear to have reversed in 1999-2000, and can be expected to improve further in the two coming years. Third, the expected growth in coal production has not materialised, due partly to a slower pace of growth in coal-based electricity generation and partly to tardy progress in encouraging private participation in coal mining which had been envisaged in the Plan. Although there is every expectation that the performance of this sector will improve in the next two

years, it is unlikely to attain the Plan target since it would involve an average growth of above 13.5 per cent per year for two years.

11. Insofar as Manufacturing is concerned, the slow-down was entirely expected. The excessive build-up of capacities in the private sector during 1994-97 was clearly not sustainable on the basis of normal growth in domestic demand, and the only feasible outlet lay in export markets. The East Asian crisis and the general slow-down in world trade precluded recourse to this avenue as well. Thus it was expected that recessionary conditions would prevail in this sector until aggregate demand caught up with the potential supply and capacity utilisation attained reasonable levels. However, the duration of slow-down had been longer than anticipated, and signs of industrial revival started becoming evident only in the last quarter of calendar year 1999. Attainment of the Plan target will require the Manufacturing sector to grow at over 13 per cent per year for the next two years. While such growth may not be entirely infeasible from the supply side given the existing capacities, it appears unlikely that demand conditions will permit such high growth within the time horizon. It may, therefore, be desirable to lower the target to some extent.

12. On the other hand, four sectors - Public Administration, Community & Social Services; Other Services; Communications; and Construction - have performed considerably better than expected. As far as Public Administration etc. is concerned, the bulk of the growth has emanated from a substantial revision in Government salaries and wages, both at the Centre and in the States, arising from implementation of the Fifth Pay Commission award. Over time, however, the impact of this factor will diminish, but it is most unlikely that the growth rate will actually be negative, which would be required to bring it in line with the Plan target. The greater emphasis that is being placed on Social sectors at all levels of Government will ensure a certain degree of growth. The growth in Other Services has been driven primarily by the Software sector, which is expected to maintain its strong growth performance in the future as well.

13. The Communications sector had been targeted for high growth and the actual has been even greater. Although some slowing down is to be expected, there is a case for increasing the target somewhat. The strong growth of Construction sector, though unanticipated, is to be welcomed. This sector has tremendous potential in terms of its linkages and in the generation of employment. The relatively low growth target set in the Plan arises from historical reasons in terms of the relationship between GDP growth and housing demand. This relationship appears to have been modified for the better due to two policy factors. First, the Indira Awas Yojana (IAY) and the housing component of the Basic Minimum Services (BMS) scheme have given a strong boost to rural housing activities. Second, policy measures have been taken in the Union Budget 1999-2000, which have been further reinforced in the Union Budget 2000-2001, for providing impetus to the housing sector; these measures appear to have had effect. In view of these developments, the target growth rate of this sector should perhaps be increased.

14. Thus, the growth performance of the economy during first three years of the Plan suggests that there is a case for reconsidering the sectoral growth targets, in addition to taking account of changes in the NAS, such that the consistency between aggregate target and sectoral growth rates is re-established. Any such exercise, however, has also to take into account the investment that has taken place in these sectors during the past three years in order to ensure that there is sufficient pipeline investment available to support the revised growth targets.

Savings and Investment Behaviour

15. While growth rates may be affected by the base change, it may be argued, the absolute levels of savings and investment taking place in the economy would determine the absolute increase in GDP, which is what ultimately counts in terms of the standard of living of the people. Although such a view is not entirely correct, there is some merit to it; and a comparison of the actual quantum of savings and investment with the targets bears enumeration. The aggregate picture for first three years of the Plan is presented in Table 2. The Plan targets for savings and investment for the first three years have been derived on the assumption of a steady-state growth path, which yields a figure of roughly 56 per cent of the five-year target to be attained in the first three years. As can be seen, total domestic savings at constant 1996-97 prices has fallen short of the target by 5.2 per cent. Interestingly enough, the estimated private savings given in the Plan is only marginally higher than the actual, and even this difference can be entirely explained by the lower growth performance in the first three years. Thus the behavioural estimates underlying the Plan appear vindicated, at least on this count. The main shortfall in domestic savings has been in the public sector, which is 70 per cent below the target. This has occurred through both a worsening of fiscal positions of the Centre and State Governments and a lower-than-expected generation of internal resources by public sector enterprises.

Table 2 : Savings and Investment Profiles in the First Three Years of the Plan (1997-2000)

(Rs Crore in 1996-97 prices)

	Plan	Actual	%age Diff.
Savings- total	**1132718**	**1073518**	**-5.2**
Private Savings	1061124	1052142	-0.8
Public Savings	71595	21375	-70.1
Investment - total	**1208307**	**1140730**	**-5.6**
Private Investment	804031	829368	3.2
Public Investment	404276	311362	-23.0

16. As far as investments are concerned, real investment during first three years of the Plan has fallen short of the target by 5.6 per cent. A casual examination of the numbers seems to indicate that this is entirely on account of a 23 per cent shortfall in public investment. Private investment, on the other hand, appears to have exceeded the target by a little over 3 per cent. Such an interpretation, however, is not entirely correct. It may be recalled that private investment in the Plan had been targeted at a level lower than warranted by the relevant behavioural equation in order to make space for the significant step-up in public investment that had been envisioned. In order to ensure that an unconstrained private investment behaviour did not lead to an over-heating of the economy and an unsustainable current account position, the Plan had suggested a combination of aggressive disinvestment in public sector enterprises and control over growth of credit to the private sector. In actual fact, progress on the disinvestment front has been significantly less than desired. Credit controls too have not been applied; neither was there need to do so in view of the shortfall in public investment. Therefore, the proper comparison should be with the private investment that would have occurred in the absence of these constraints. The relevant figure for first three years of the Plan works out to Rs.8,43,542 crore, which implies that private investment has been 1.7 per cent below the level dictated by its long-term behaviour.

17. Therefore, the slow-down in growth of the economy is not entirely due to cut-backs on public investment, as would appear from the unqualified comparison given in Table 2, but also partly due to insufficient private investment demand. This is a somewhat disquieting finding since it implies that private investment is unlikely to be able to make-up for shortfalls in public investment. There are two dimensions to this. One, it confirms the assessment made in the Plan that private investment demand in India today is not buoyant enough fully to compensate for shortfalls in public investment. Second, although it indicates that the fears of public investment “crowding out” the private are not entirely justified, high fiscal deficits arising from high revenue deficits may have led to a crowding out effect. Any re-specification of the Plan targets will have to take these factors into consideration.

18. On the whole, therefore, the basic assumptions of the Plan appear to have been vindicated by the actual investment figures during first three years of the Plan. It may be recalled that the Plan had specifically recognised that private investment demand in India is still not robust enough to sustain a 6.5 per cent growth path, let alone 7 per cent. It was, therefore, suggested that public investment would have to bridge the gap, for the immediate future at least. It was also believed that this would have a salutary effect on private investment as well. Consequently, the Plan had targeted public investment to rise sufficiently so that it accounted for 33.5 per cent of the total investment in the economy as compared to the 28.5 per cent figure that had been attained in the terminal year of the Eighth Plan (1996-97). This assumption has been belied and the share of public investment to the total has actually gone down even further to 27.3 per cent during first three years of the Ninth Plan. Unless this trend is reversed expeditiously, the realisation of Plan targets could become problematic.

19. The aggregate figures on investment, however, do not tell the full story. It is also necessary to examine the sectoral investment pattern that has taken place during first three years of the Plan. As has been discussed earlier, re-specifying the sectoral growth targets cannot be done without taking into account the pipeline investments that are necessary to support the revised growth targets. A comparison of the planned sectoral investment requirements with the actual investment pattern is given in Table 3. As before, the investment targets for first three years of the Plan have been derived on the assumption of a steady-state path, which may not necessarily be a justifiable assumption in this instance. The time paths of sectoral investment requirements are determined by the level of pipeline investment and the gestation lags which apply in each sector. Nevertheless, for expository purposes, this assumption is made. The first point to note is that with the exception of three sectors - Registered Manufacturing, Construction, and Other Services - all others have received inadequate investment in varying degrees. On the positive side, two of the sectors which have been identified for an enhancement of growth rates - Construction and Other Services - have received sufficient investment to justify such an increase. The Communications sector is more or less on target, and with the recent resolution of the problems faced by private telecommunication operators, this sector should be able to move to a higher growth trajectory. Insofar as Public Administration etc, is concerned, the insufficiency of investment is worrying and arises almost entirely from fiscal problems being faced by Government at all levels. Nevertheless, given the importance of this sector, an enhancement of the growth rate is imperative and the appropriate investment will need to be made.

TABLE 3 : Planned and Actual Sectoral Investment in First Three Years of the Plan (1997-2000)

(Rs '000 Crore at 1996-97 prices)

Sectors	Plan	Actual	Percentage Change
Agriculture	[illegible]	100.7	[illegible]
Forestry & Logging	2.5	1.9	-25.0
Fishing	11.1	8.7	-21.6
Mining	42.0	33.8	-19.6
Manufacturing-Registered	268.6	355.8	32.5
Manufacturing-Unregistered	92.7	82.6	-10.9
Electricity, Etc	151.9	125.3	-17.5
Construction	20.5	23.4	14.3
Trade	32.9	32.4	-1.5
Hotels	13.4	10.8	-19.9
Rail Transport	21.0	18.8	-10.6
Other Transport	77.0	69.0	-10.4
Communications	40.0	39.4	-1.3
Financial Services	63.4	30.3	-52.2
Real Estate	137.2	115.0	-16.2
Public Administration, etc	72.1	58.8	-18.5
Other Services	28.4	34.1	20.2
Total Investment	**1208.3**	**1141.0**	**-5.6**

20. The excess investment in Registered Manufacturing comes as a surprise, although the Plan had explicitly recognised the possibility of this sector receiving more investment than strictly required. It may be recalled from Table 1 that the Manufacturing sector as a whole has recorded a growth performance significantly below the Plan target. In such a situation, a strong investment performance by Registered Manufacturing is most unexpected. This factor perhaps explains the long period of capacity under-utilisation that has been experienced in this sector. Nevertheless, an inescapable implication of such a dichotomous behaviour is that the industrial slow-down has led to the attrition of a fairly substantial amount of existing manufacturing capacity, and that the net addition to capacity may be significantly lower than indicated by the investment figures. It also suggests that investment in this sector may not be able to maintain the pace recorded in the last three years. On the positive side, it would appear that the revival of industrial activity is unlikely to be constrained by the availability of production capacities.

21. Unregistered Manufacturing, on the other hand, has experienced lower than desired investment. While this is in accordance with the industrial slow-down, it does not bode well for the overall structure of the manufacturing sector in India, in the sense that the share of unregistered sector in total Manufacturing will fall; nor does it bode well for the pace of employment generation. Fortunately, the magnitude of shortfall is not large and, with industrial revival, can be expected to make up some lost ground. The danger, however, lies in the increasing sensitivity of the Financial sector to risk exposure in recent years and its consequent unwillingness to provide investible resources to the small-scale units.

22. The shortfall in investment is quite severe in Agriculture & Allied Activities, which probably also reflects the reduction in public, particularly Government, investment during this period, with its consequent effect on private investment. It may be recalled that the Government, especially the States, was expected to contribute about 35 per cent of the desired investment in these sectors. It was further pointed out that there is strong complementarity between public and private investments, and inadequate public investment could lead to a 25 per cent lower private investment than desired. It is imperative that the rate of public investment in these sectors be restored if the Plan targets are to be achieved.

23. In most of the other sectors, the shortfall in investment is not large enough to be of serious concern. A revival of the investment climate, which appears to be very much on the cards, should lead to at least a part of the lost ground being made up in last two years of the Plan. As far as the Utilities Sector (Electricity, Gas and Water Supply) is concerned, the shortfall is large at 17.5 per cent, implying that only 37 per cent of the desired investment has materialised in first three of the Plan, but it is not entirely unexpected. It had been explicitly recognised in the Plan that there was an insufficiency of pipeline investment in this sector coming from the Eighth Plan period and, therefore, the investment pattern would necessarily have to be back-loaded. What is of concern, however, is that there is little evidence of any significant pick-up in investment in this sector. Unfortunately, in this case, revival in the economic and investment climate may not necessarily lead to an adequate acceleration in the pace of capacity creation since the main impediments lie in financial health of the state electricity boards and municipalities and in the tardy pace of sectoral reforms.

24. Another sector in which investment revival may not happen without deliberate policy initiatives is the Financial Services Sector (Banking & Insurance). It may be noted that the actual investment in this sector is less than half the desired level; which means that only about 29 per cent of the total investment required during the Plan period has been realised in the first three years. On the other hand, it may be noted from Table 1 that this sector has actually recorded a higher growth rate than planned during first three years of the Plan. These two observations together suggest that the sector may be getting over-extended and may not be able to maintain its

growth rate in the future. This has very serious implications for the economy as a whole during the coming years, and is therefore discussed at greater length later in this chapter.

Targets and Prospects for Final Two Years

25. It is now possible to put together the assessment of first three years of the Plan and the revised targets discussed in the Appendix to present a consolidated picture of the recast Ninth Plan in comparison to the original and the targets for remaining two years of the Plan. The macroeconomic picture is presented in **Table 4.** The first column of the Table shows the original Plan parameters, which were based on an earlier NAS with 1980-81 base. Since these numbers are not directly comparable with the revised Plan parameters, the second column has been computed to reflect only the effect of the base change. The third column presents the revised Plan parameters, which take into account the effect of the base change as well as the revisions that have been necessitated by the needs of inter-sectoral consistency. The fourth column is the actual performance during first three years of the Plan; and the fifth shows the performance required in the final two years if the revised Plan targets are to be achieved. As can be seen, the revision of National Accounts in itself has necessitated significant changes in Plan parameters, particularly with regard to savings and consumption, which are central to the planning process. Further changes have had to be incorporated to take account of the serious shortfall in public savings in first three years of the Plan.

26. A comparison of the achievement in macro-economic targets during the first three years of the Ninth Plan and the corresponding period during the Eighth Plan is given in Table 5. As can be seen, the Eighth Plan had set fairly modest targets, almost all of which were exceeded in the first three years itself. The exceptions were Public Savings and Public Investment, which had fallen significantly short of the targets. During the Ninth Plan, however, the achievements have fallen short of the targets in practically all the parameters. Nevertheless, it should be noted that most of the Ninth Plan parameters are higher than their Eighth Plan counterparts, which reflects the more ambitious targets laid down for the Ninth Plan. Public Savings and Public Investment, however, continue to exhibit the negative trends that were perceptible during the Eighth Plan period, and have become even lower than the Eighth Plan achievements.

27. The more interesting changes, however, have arisen from the revision in sectoral structure of the economy in the new NAS. Even with constant sectoral growth targets and unchanged sectoral Incremental Capital-Output Ratios (ICORs), the new structural configuration has led to a significant decline in the aggregate ICOR for the economy from 4.34 in the Plan to 4.19, and thereby to lower investment requirements. Reconfiguring the sectoral growth rates to make them consistent with the new base and full inter-sectoral consistency in the post-Plan period has led to even further decline in the aggregate ICOR to 3.94 and consequently in the required investment rate, which has declined from 28.2 per cent to 25.7 per cent. The net result has been a significant reduction in the current account deficit that the economy will have to run - from 2.1 per cent of GDP to 1.43 per cent - for meeting its growth objective.

28. The last two years of the Plan are expected to see a revival in both public savings and investment, but the improvement in savings is targeted to be marginally lower than in investment. This would suggest that the

TABLE 4 : Macroeconomic Parameters of the Ninth Plan

(as a % to GDPmp)

Plan TARGETS	Plan Targets (5 years)	Plan Targets on New Base (5 years)	Revised Plan Targets (5 years)	1997-2000 (3 years)	2000-2002 (2 years)
GDP Growth Rate	6.5	6.3	6.5	6.1	7.1
Investment - Total	28.20	26.40	25.70	25.02	26.73
Private Investment	18.80	17.60	18.50	18.20	18.96
Public Investment	9.40	8.80	7.20	6.82	7.77
Savings - Total	26.10	24.50	24.27	23.55	25.34
Private Savings	24.50	23.00	23.41	23.05	23.95
Public Savings	1.60	1.50	0.86	0.50	1.40
Consumption-Total	74.90	76.50	77.07	77.98	75.70
Private Consumption	63.60	65.30	65.62	66.34	64.55
Govt. Consumption	11.40	11.20	11.44	11.64	11.15
Current Account Deficit	2.10	1.90	1.43	1.47	1.39
ICOR	4.34	4.19	3.95	4.10	3.75

TABLE 5 : Targets and Achievements in Eighth and Ninth Plans (first Three Years)

(as a % to GDPmp)

	Eighth Plan		Ninth Plan	
	Targets	Achievements	Targets	Achievements
GDP Growth rate	5.6	6.4	6.5	6.1
Investment Rate	23.2	24.7	25.7	25.0
Private Investment	12.7	15.9	18.5	18.2
Public Investment	10.5	8.8	7.2	6.8
Savings	21.6	23.4	24.3	23.5
Private Savings	19.6	22.1	23.4	23.1
Public Savings	2.0	1.3	0.9	0.5
Consumption - Total		76.5	77.1	78.0
Private Consumption		65.7	65.6	66.3
Govt. Consumption		10.9	11.4	11.6
Current Account Deficit	1.6	1.3	1.4	1.5
ICOR	4.1	3.9	3.9	4.1

Note: Eighth Plan Figures are in earlier 1980-81 prices.

borrowing requirement of the public sector as a proportion of GDP would increase even further in the coming two years. While this is true, most of the increase in the public sector borrowings rate is expected to be through higher borrowings by Public Sector Enterprisees (PSEs) and not on account of increases in fiscal deficit of the government. Indeed, as will be discussed later, the consolidated fiscal deficit to GDP ratio is expected to decline quite sharply. In order to appreciate the magnitude of effort that will have to be put in by the public sector, it is instructive to examine the growth rates of the macroeconomic aggregates over the Plan period. These are presented in **Table 6**.

29. There are a number of interesting issues which arise from the above Table. First, it may be noted, both savings and investment need to grow at much faster rates in the revised Plan than in the original. Therefore, the reduction in the savings and investment rates indicated in Table 4 does not imply any lessening of the need to make strenuous efforts at increasing domestic savings and investment behaviour. Second, the rate of growth of investment is projected to rise sharply in last two years of the Plan as compared to the first three years. This is true of both public and private investments. On the other hand, the rate of growth of private savings is expected to decelerate over these periods. This highlights the importance that needs to be placed on increasing public savings. As can be seen, the negative trend observed during first three years of the Plan has to be decisively reversed with immediate effect. Although the target growth rate of over 450 per cent in public savings appears formidable, it has

TABLE 6 : Annual Growth Rates of Macroeconomic Aggregates (percent per annum)

	Plan Targets (5Years)	Revised Plan TARGETS (5 Years)	1997-2000 (2 Years)	2000-02 (3 Years)
GDP Growth Rate	6.5	6.5	6.1	7.1
Investment - Total	7.3	8.7	7.1	11.2
Private Investment	5.5	8.2	7.6	9.2
Public Investment	11.5	9.9	5.9	16.3
Savings - Total	7.4	8.6	6.4	11.9
Private Savings	7.0	8.7	9.0	8.2
Public Savings	12.2	7.2	-64.0	451.2
Consumption-Total	6.3	5.4	5.2	5.7
Private Consumption.	6.2	5.1	4.7	5.7
Govt. Consumption	7.2	7.3	8.5	5.5

to be seen in the context of the extremely low level attained in the third year of the Plan. In fact this target seen against the low base appears eminently feasible. Nevertheless, the importance of public sector initiatives for attaining the growth targets of the Plan and for continuing strong growth performance in the post-Plan period cannot be over-emphasised.

30. The comparative picture regarding sectoral growth targets and requirements for final two years of the Plan is given in **Table 7**. The revised Plan targets shown in column 3 have been derived as discussed in the Appendix, and are consistent with the target average growth rate of GDP of 6.5 per cent per annum. The required growth rates during last two years of the Plan given in the final column have been computed with reference to the revised targets, and are therefore consistent with the post-Plan growth scenario discussed in the Plan.

31. At the sectoral level, Table -7 would show that the target rate of growth for Agriculture & Allied Activities has been retained at the original figure of 3.9 per cent per annum, despite a fairly significant increase in the base-year share in GDP and a less than targeted growth performance during the first three years. This bears some explanation. In the first place, this sector has dimensions which go beyond the mere fulfillment of demand for its output. It is central to the Ninth Plan strategy for reduction in poverty and in regional imbalances. Any compromise in the growth target for this sector would be tantamount to compromising on these objectives of the Plan. Secondly, although the increase in the base-year size of this sector implies that an unchanged growth target will require much higher additions to output in absolute terms and therefore make the target that much more difficult to attain, there is a reasonable expectation that the task may not be impossible. In revising the value-added in Agriculture, the new NAS has taken into account production in the fore- and back-yards of households and has added a few more horticultural products in the basket of commodities. Past data suggest that these additions may have grown at a faster rate than Agriculture on an average, and may continue to do so in the future as well.

32. In the case of Mining & Quarrying, Manufacturing, Electricity, Gas & Water Supply and Other Transport, the revised targets reflect the relatively poor growth performance during first three years of the Plan. The revised growth targets are, however, consistent with a 7 per cent plus growth rate of GDP in last two years of the Plan and into the post-Plan period. Although the targets for Mining & Quarrying and for Utilities sectors may be difficult to attain given the present trends, there is every expectation that Manufacturing, which has been targeted to grow at more than 10.5 per cent per annum in the last two years, may well exceed its revised target in the short run and make up any deficit on this account. Other Transport too should attain the revised target in view of the recent performance and the emphasis that is being placed on this sector in terms of investment priorities. In the longer run, however, inter-sectoral balance will demand that the relative growth rates become more or less aligned to the figures indicated.

33. The revised targets for most other sectors are consistent with the inter-sectoral balancing requirements. Two sectors, however, which are of special interest are Construction and Public Administration, Community &

TABLE 7 : Sectoral Growth Targets for the Ninth Plan

(Rate of Growth In GDP)

Sectors	Plan Targets (5 Years)	Revised Plan Targets (5 Years)	1997-2000 (3 Years) (Actuals)	2000-02 (Required) (2 Years)
1. Agriculture & Allied Activities	3.9	3.9	2.7	5.7
2. Mining & Quarrying	7.2	5.1	2.9	8.5
3. Manufacturing	8.2	7.1	4.9	10.6
4. Electricity,Gas & Water	9.3	8.4	7.7	9.5
5. Construction	4.9	6.8	8.3	4.5
6. Trade	6.7	6.8	6.1	7.8
7. Rail Transport	3.9	3.6	3.1	4.2
8. Other Transport	7.4	6.8	5.6	8.7
9. Communications	9.5	11.9	14.1	8.5
10. Financial Services	9.9	10.4	11.4	8.8
11. Public Administration, etc.	6.6	8.5	12.1	3.2
12. Other Services	6.6	7.7	8.8	6.0
Total	6.3	6.5	6.1	7.1

Social Services. In the case of Construction, the sector has responded very favourably to recent policy initiatives and appears to have broken free from the past trends. This is indeed good augury since this sector has enormous potential for employment generation, but a certain degree of caution appears to be indicated before raising its growth target too much and disturbing the inter-sectoral balance at this stage. Most of the policy initiatives thus far are taken by the Central Government and follow-up action by the States is awaited for the most part. Since the bulk of the action in this sector is driven by State policies, any further revision of the target will have to be contingent on the progress made by States in this regard.

34. As far as Public Administration, etc. is concerned, the unnatural bulge in its measured "value-added" caused by the pay revision in first three years of the Plan becomes very difficult to accommodate in any reasonable manner. Nevertheless, real growth must be provided for since this sector encompasses two critical areas of health and education. In working out the target growth rate for the future, it has been estimated that this notional increase in the value-added will erode at the rate of 2.3 percentage points a year for the next few years. This arises from assumptions of (a) a stable 6 per cent inflation rate; (b) absence of the impact of arrears; (c) a roughly 2.1 per cent annual increase in pay and allowances; and (d) 100 per cent indexation of about 50 per cent of the pay and allowances. Thus the targeted rate of growth of 3.2 per cent translates to a real growth target of 5.5 per cent, which is somewhat lower than what is strictly desirable; nevertheless, fiscal considerations preclude any higher target.

35. The original and revised investment requirements for meeting the growth targets are presented in **Table 8**. The revised requirements are consistent with the revised sectoral growth targets as discussed in the Appendix. The first point to note is that the total investment requirement for attaining the 6.5 per cent growth target stands reduced by almost Rs. 70,000 crore or 3.2 per cent. This is almost entirely an outcome of the fact that as per the new NAS, although the estimated GDP has increased, the investments over the period 1993-94 to 1996-97 have declined. The second noteworthy point at the aggregate level is that over 54 per cent of the revised investment requirements have actually materialised in first three years of the Plan. This is more or less in accordance with the steady-state projections, and gives assurance that the revised Plan targets and investment requirements can be met.

36. At the sectoral level, however, matters are somewhat more complicated. Despite a 7.2 per cent reduction in the investment requirement for Agriculture & Allied Activities, the actual investment during first three years of the Plan has been only 44 per cent of the revised requirements. This is much too low and concerted efforts will have to be made to accelerate the pace of investment in this sector if the Plan targets are to be attained. For most part, investment in this sector lies in the domain of States and of the private sector, with the Centre contributing less than 10 per cent of the total investment requirement. An improvement in the fiscal position of the State Governments is therefore essential for revival of investment in this sector, both directly and through a "crowding in" effect. Fortunately, however, the gestation lags of investment in this sector are by and large quite small, averaging just over one year, and therefore expeditious action can yield fairly quick results.

37. The situation in Mining & Quarrying is much worse than in Agriculture despite the similarities in broad figures: 8.8 per cent reduction in investment requirement and 44 per cent achievement of the revised requirement in the first three years. In the first place, the gestation lags of investment in this sector typically are large, and not too much can be expected in the near future even if there is an immediate revival in investment. Second, the bulk of investment now occurring in this sector is by Central Public Sector Enterprises (CPSEs). Unfortunately, the internal resources of many of these CPSEs, particularly in coal, have fallen significantly short of Plan estimates, which have also adversely affected their ability to raise extra-budgetary resources. There is some hope that with the revival of the economy, the internal resources of these enterprises will improve and will enable them to raise the pace of investment, but this may not be enough. The Plan had expected that about 40 per cent of investment in this sector would come from private sources, which would require policy and legislative changes outlined in the Plan. This expectation has been belied primarily due to inadequate movement on the policy front. Although enabling provisions for private involvement have been made, the procedural and legislative follow-up has been inadequate. The urgency for such movement cannot be overstated since lack of adequate investment in this sector within the next couple of years will seriously jeopardise the pipeline investment needed to accelerate the growth rate of the economy during the Tenth Plan period and beyond.

38. The situation is equally grim in Utilities sector, particularly in Electricity. Although the investment requirements have been reduced by over 11 per cent, only 42 per cent of the revised requirements have actually materialised during the first three years. This is again a sector which has relatively long gestation lags, especially in transmission, which underscores the necessity for rapid revival in investment activities for keeping up the growth momentum in the post-Plan period. The problems regarding the financial health of the state electricity boards (SEBs)

TABLE 8 : Sectoral Investment Requirements for the Ninth Plan

(Rs. '000 crore at 96-97 prices)

	Sectors	Plan Requirements (5 Years)	Revised Plan Requirements (5 years)	1997-2000 (Actuals) (3 Years)	2000-02 (Required) (2 Years)
1.	Agriculture	245.7	230.5	100.7	129.8
2.	Forestry & Logging	4.1	3.0	1.9	1.1
3.	Fishing	22.6	19.2	8.7	10.5
4.	Mining & Quarrying	84.5	77.1	33.8	43.3
5.	Manufacturing - Registered	438.4	424.8	355.8	69.0
6.	Manufacturing - Unregistered	173.3	164.4	82.6	81.8
7.	Electricity, Gas & Water	336.7	299.3	125.3	174.0
8.	Construction	39.9	43.4	23.4	20.0
9.	Trade	47.2	56.6	32.4	22.2
10.	Hotels, etc:	21.1	20.4	10.8	9.6
11.	Rail Transport	35.0	34.7	18.8	15.9
12.	Other Transport	129.0	134.7	69.0	65.7
13.	Communications	69.2	78.6	39.4	39.2
14.	Financial Services	104.4	97.1	30.3	66.8
15.	Real Estate	249.0	233.9	115.0	118.9
16.	Public Administration, etc.	121.8	131.1	58.8	72.3
17.	Other Services	48.7	53.9	34.1	19.8
	Total Investment	**2170.6**	**2101.0**	**1141.0**	**960.0**

and inadequate progress on the reform front have already been mentioned. In addition, the Plan had envisaged that over 44 per cent of the investment in this sector would have to come from the private sector. Not only has this not happened, the rate of progress is extremely slow. The principal factors for this are again the performance of the SEBs and lack of movement on the institutional front. Although some movement has been visible in the immediate past, in terms of some State Governments establishing independent Electricity Regulatory Authorities and unbundling the SEBs, it is nowhere near enough. There needs to be a considerably greater sense of urgency in implementing the necessary reforms if even the revised targets are to be met.

39. The case of the Financial Services sector is an interesting one. The output of this sector is determined primarily by the financing needs of the rest of the economy. As a result, the restoration of the target growth rate of GDP has necessitated an increase in the growth rate of this sector, but its investment requirement has been reduced by 7 per cent on consistency considerations. Despite this reduction, only 31.2 per cent of the revised investment requirement has been achieved during first three years of the Plan. The seriousness of this development has already been mentioned, but it bears reiteration and elaboration since it may have strong adverse implications on the growth and investment prospects of other sectors of the economy.

40. The definition of 'investment' in the Financial Sector is somewhat different from that in other sectors. By and large, it comprises "owned" funds of the sector, and not funds that are placed with it for reinvestment by the public at large. It therefore represents the risk capital that provides the backing for the intermediation function that the sector carries out. In earlier years the quantum of such capital resources was not an issue of concern, and the volume of lending or 'investment' of the Financial Sector was determined almost entirely by "deposits" made by the public with these institutions. In recent years, however, prudential concerns have led to the imposition of "capital adequacy" norms, particularly for the banking sector and development finance institutions. These norms place an upper bound on the total volume of loans that can be made by these institutions at any given time on the basis of their "owned" funds. Thus, today the rate of growth of credit in the economy is governed by two distinct parameters : (a) the rate of growth of deposits; and (b) the rate of growth of "owned" funds. It is therefore entirely possible that a strong growth of deposits can be accompanied by a low growth of credit or loans arising from a binding capital adequacy requirement; this drives a wedge between savings and investment and becomes the binding constraint on economic activity in the country.

41. The growth of "owned" capital of the financial system is determined in turn by two major factors : (a)

growth of retained profits of financial institutions; and (b) ability to raise capital from the promoters or from the market. In the past, growth of retained profits of the banking sector was constrained by the preemption of a sizeable proportion of loanable funds by the Government at below-market interest rates through mandatory reserve requirements. This handicap has been removed, both by reduction in the extent of preemption and by moving to market-related rates, and gross bank profits have grown rapidly in the 1990's. Yet stringent provisioning norms for non-performing assets (NPAs) have eroded much of these gains in the last two years. Moreover, since most of the banking sector is in the public domain, fiscal problems of the Government have precluded an adequate increase in the capitalisation of the banks. No doubt a certain amount of capital has been raised from the market by a few public sector banks, yet the figures cited above indicate that it is not enough. As a consequence, the risk-adjusted capital adequacy ratio (CRAR) of the banking sector taken as a whole has fallen from above 12 per cent at the end of 1997-98 to just over 10 per cent by the end of 1999-2000. This needs to be seen in the perspective of a mandated CRAR of 9 per cent at present, which is slated to go up to 10 per cent in 2001-2002. Clearly, if this trend continues, there is a strong possibility that a revival in the investment climate in the country can be choked off by the inability of the banking sector to make sufficient credit available, independent of the growth of deposits. To make matters worse, such a situation will also adversely affect the profitability of banking sector since the credit/deposit ratio will go down even further, thereby reinforcing this adverse trend.

42. The principal stumbling block appears to be inability of the Government to either provide adequate equity capital or permit public sector banks freely to raise equity from the market. The latter arises from dilution of Government holding that is implicit in any public issue where the principal shareholder does not increase its own equity on a commensurate basis. Although it is true that increasing the "owned" funds of banks without dilution of ownership can be effected by raising Tier-II capital from the market, there is a limit to which this can be done. Moreover, any relaxation of the existing limits will increase the extent of leverage of the banking sector and thereby its vulnerability. The obvious option is therefore to permit dilution in equity holdings of the Government in public sector banks. Although an in-principle decision has been taken to reduce Government's equity share to 33 per cent, actual dilution is still being processed on a case-by-case basis. Individual banks have been approaching the Government for enhancement of their equity base and receiving permission to do so. However, the data suggest that this is a systemic problem and should be viewed in its macro context. Moreover, dilution of Government holdings can be a short to medium term strategy at best. A longer view will have to be taken to ensure that this problem does not become an abiding feature of the Indian financial sector. For the immediate future, however, it is imperative that measures be taken to enhance the CRAR of the banking sector as a whole on an urgent basis. Otherwise the possibility exists that economic revival may be constrained by availability of credit.

43. The investment profile of rest of the sectors during first three years of the Plan is more or less in line with their revised investment requirements. Thus, they can be expected to meet the targets without any great difficulty. Indeed, two sectors - Registered Manufacturing and Other Services - are well ahead of their respective steady-state paths. The Other Services Sector has received about 63 per cent of the required investment in the first three years, mainly on the strength of the Software sector. There is every expectation that this trend will continue, and that this sector may meet, or even exceed, its target comfortably. In the case of Registered Manufacturing, almost 84 per cent of the revised investment requirement has already occurred, which implies that there is a good chance that the target will be crossed. On the other hand, it also raises the possibility that future investment growth in this sector may not accelerate, and indeed may decelerate, in the immediate future as capacity utilisation will remain on the lower side. Domestic demand is unlikely to rise sufficiently to forestall this possibility and exports provide the only alternative. The implication of this possibility is that unless investment in the other sectors picks up strongly, there could be a lack of adequate investment demand in the economy leading to a weaker recovery than anticipated. This underscores the importance of a strong revival in public investment in last two years of the Plan, not merely for meeting its sectoral obligations but also for ensuring adequate aggregate demand in the economy and thereby sustaining the growth momentum.

44. Revision of aggregate and sectoral growth targets and investment requirements also necessitates a reconsideration of the investment responsibilities of public and private sectors and of the over-all savings-investment balances. In carrying out this exercise, a number of assumptions have had to be made in order to accommodate the changes in the data set. First, as far as private savings and investment behaviour is concerned, the behavioural equations of the Plan model have had to be calibrated to the new data series. To the extent possible, the burden of calibration has been placed on changes in the intercept term rather than on the behavioural parameters. Second, cognisance also has had to be taken of the fiscal stress being faced by every level of Government and the extent to which these could

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reasonably be relaxed in the next two years. The outcome of this exercise is presented in **Table 9**.

TABLE 9 : Savings-Investment Balance

(Rs. '000 crore at 1996-97 prices)

	Plan	Revised Plan	1997-2000 (Estimated)	2000-2002 Required)
Savings- total	2010.8	1983.5	1073.5	910.0
Private Savings	1883.7	1911.6	1052.1	859.5
Public Savings	127.1	71.9	21.4	50.5
Investment - total	2170.6	2100.8	1140.7	960.1
Private Investment	1444.4	1510.0	829.4	680.6
Public Investment	726.2	590.8	311.4	279.5
Foreign Savings	159.8	117.3	67.2	50.1

45. The first point to note in the above Table is that the revised estimate of Total Domestic Savings is only 1.4 per cent lower than the original Plan estimate though the savings in first three years of the Plan has been 5.2 per cent below the original steady-state projection as given in Table 2. This has come about both through a stronger-than-expected performance of private savings and an anticipated revival of public savings in last two years of the Plan. As can be seen, private savings is estimated to be higher by 1.5 per cent than the original Plan estimates, and even so 55 per cent of the revised estimate has already been achieved in first three years of the Plan. This is completely in accord with the projected time-path.

46. As far as public savings is concerned, it is not only expected to be 43.4 per cent lower than the original target, but the realisation of the revised estimate has been only 29.8 per cent in the first three years. Thus, in last two years of the Plan, public savings is expected to rebound strongly. This expectation is based on two main factors. First, the negative effect of the pay revision, especially of payment of arrears, on Government savings more or less ceases after 1999-2000. Second, performance of the Public Sector Enterprises, and thereby their internal accruals, is expected to improve with industrial revival. As a consequence, public savings as a percentage of total domestic savings is estimated to rise from the mere 2 per cent during the first three years to 5.5 per cent in the final two years. Although this will continue to be lower than the Plan target of 6.3 per cent, it represents a movement in the right direction.

47. Insofar as aggregate investment is concerned, as has already been discussed, the growth target of the Plan can be achieved with a 3.2 per cent lower investment than originally estimated. The decomposition of the revised investment requirement between the public and the private sectors, however, is very different from the original. It may be recalled that the Plan had targeted public investment to be 33.5 per cent of total investment in the economy. This target now appears unattainable since in the first three years this ratio has fallen to 27.3 per cent. A reasonable evaluation of the prospects for the last two years of the Plan suggests that it may be possible to raise this proportion to 29.1 per cent, and not much higher, which yields a full Plan figure of 28.1 per cent. However, it needs to be noted that the share of public investment to the total in the terminal year of the Ninth Plan is likely to be higher than what it was in the terminal year of the Eighth Plan. Nevertheless, public investment is a matter of serious concern, and issues relating to it and to the fiscal position of the Government are examined in greater depth later in this chapter and also in Chapter 2.

48. In order to accommodate the 18.6 per cent reduction in the public investment target, the revised target for private investment is 4.5 per cent higher than in the Plan. The feasibility of this higher target can be gauged from two factors. First, the private investment demand function used in the Plan yields roughly the same figure if not constrained by credit restrictions, as has been mentioned earlier. Second, 55 per cent of this higher target has already been achieved in first three years of the Plan, which is consistent with the steady-state path. Thus, both theoretically and empirically, there is every expectation that the revised investment target will be achieved by end of the Ninth Plan.

49. Finally, it should be noted that although both aggregate domestic savings and investment have been revised downwards, the reduction in the former (-1.4 per cent) is significantly lower than in the latter (-3.2 per cent). As a consequence, the requirement of foreign savings in the form of current account deficits (CAD) reduces sharply by 26.6 per cent, of which 57 per cent has been achieved in the first three years. Details of the balance of payments as originally planned and revised are given in **Table 10**, along with the performance in the first three years and expectations about the last two years. As can be seen, exports have been somewhat lower than targeted, having achieved about 51 per cent of the revised target. Imports, on the other hand, are more or less on target at 54 per cent. As a consequence, the trade balance during the first three years has been larger than expected. However, an unexpectedly strong performance of invisibles has kept CAD well below the expected. In the next two years, imports are expected to grow at about 14.5 per cent per annum, while exports need to grow at around 20 per cent if the aggregate demand conditions for the traded goods sectors are to be met. If these projections are realised, the trade deficit should narrow quite significantly. Nevertheless, CAD may actually widen due to an expected reversal on the invisibles account.

TABLE 10 : Balance of Payments and its Financing

(Rs. '000 crores at 1996-97 prices)

	Plan	Revised Plan	1997-2000 (Estimated)	2000-2002 (Expected)
Exports	800.9 (226)	775.0 (218)	401.7 (113)	373.3 (105)
Imports	936.1 (264)	909.5 (256)	496.8 (140)	412.7 (116)
Trade Balance	-135.2 (-38)	-134.5 (-38)	-95.1 (-27)	-39.4 (-11)
Net Invisibles	-24 6 (-7)	17.2 (5)	44.7 (13)	-27.5 (-8)
Current Account Balance	-159.8 (-45)	-117.3 (-33)	-50.4 (-14)	-66.9 (-19)
Financed By:				
Net External Asst.	7.7 (2)	12.5 (4)	8.9 (3)	3.6 (1)
Net External Debt	53 9 (15)	60.5 (17)	37.7 (11)	22.8 (6)
FDI	92 3 (26)	70 8 (20)	32.8 (9)	38.0 (11)
FPI	23.1 (7)	32.7 (9)	10.9 (3)	21.8 (6)
Total Capital Inflow	177.0 (50)	176.5 (50)	90.3 (26)	86.2 (24)
Net Accretion to Reserves	17.2 (5)	59.2 (17)	39.9 (11)	19.3 (6)

Notes: (1) Figures in brackets are in US$ Billion.
(2) Above figures may not tally with the RBI Balance of Payments accounts due to two corrections that have been made :
(a) Software exports have been deducted from invisibles and added to exports;
(b) NRI gold imports have been deducted from both imports and invisibles.

50. At an aggregate level, capital inflows have more or less been in accordance with Plan targets, and there is no reason to believe they would not continue to be so in last two years of the Plan. Although this, taken with the CAD estimates, is most reassuring from the point of view of balance of payments management and external indebtedness, it also points to a deeper malaise, which needs to be discussed in more detail. First, it may be noted from the above Table that foreign direct investment (FDI) has fallen well short of the target (45 per cent of the planned). This has been made up primarily by external debt inflows, which have been 62 per cent of the target, driven largely by proceeds from the Resurgent India Bonds (RIBs). This is not particularly propitious since FDI has a dimension beyond mere financing of CAD. As has been mentioned in the Plan, FDI is an important component of the aggregate investment demand in the economy and is central to raising the rate of capacity creation in the country above what is likely to occur through domestic investment alone. External debt does not have this characteristic. Secondly, this characteristic of FDI takes on added importance in view of the fact that in first three years of the Plan accretion to foreign exchange reserves (FER) at US$ 11 billion was considerably in excess of the requirement, which was placed at US$ 4 billion. In other words, the economy was simply unable to absorb the inflow of foreign savings and convert it into productive capacity.

51. Estimates for last two years of the Plan do not indicate either that FDI flows will be significantly stronger. Although there is some expectation of acceleration on this account, it is felt that foreign portfolio investment (FPI), which had underperformed in the first three years, is likely to do better. Thus, despite the expected revival in domestic investment, reserve accretion is likely to continue apace as the economy will not be able to absorb the available foreign savings fully. As has been pointed out in the Plan, a wide gap between the inflow of foreign resources and its absorption can create serious problems in the macro-management of the economy, particularly with respect to monetary and exchange rate policies. This observation underscores the importance of encouraging FDI, on the one hand, and making every effort to increase public investment, on the other.

Fiscal Considerations and Public Sector Plan

52. It should be clear from the above discussion on performance of the economy during first three years of the Plan that a major cause of the relatively slow growth

has been the serious shortfall in public investment during this period. Almost all other macroeconomic variables appear to have behaved more or less according to Plan. Therefore, in order to assess future progress of the Plan, it is necessary to examine the extent and nature of the deviations that have occurred in public finances and expenditures. Although most of these issues has been dealt with in greater detail in Chapter 2, a broad overview may be desirable at this stage in order to motivate the changes that have become necessary in the Plan targets. A summary statement of Plan targets for both outlays and resources of the public sector and the performance during first three years of the Plan is presented in **Table 11**. The first point to note is the serious slippage in almost all Plan parameters, except in Centre's support to PSEs and in the current outlay component of State Plans. In particular, attention needs to be focussed on the fact that although all wings of the public sector, Centre, States and PSEs, have experienced shortfalls in their investment targets, the problem has been most acute in the States. The realisation of only 28 per cent of planned investment in the first three years against a normal realisation of 57 per cent over the same period is cause for serious concern. The magnitude of the problem becomes clearer by the fact that investments by the States have been only 1.24 per cent of GDP against a target of 2.48, thereby accounting for almost 60 per cent of the total slippage in the public investment rate from 8.91 per cent of GDP to 6.82 per cent.

TABLE 11 : Outlays and Resources of the Public Sector during First Three Years of the Ninth Plan

(Rs. Crore at 1996-97 prices)

	IX Plan Projection Rs. crore	IX Plan Projection % GDP	Realisation (1997-2000) Rs. crore	Realisation (1997-2000) % GDP	Realisation as % of Plan
Centre: **Central Plan Outlay** Of which	374,000	4.59%	181,527	3.98%	48.54%
(a) Support to State Plans	170.018	2.09%	81,528	1.79%	47.95%
(b) Support to CPSEs	38,000	0.47%	21,477	0.47%	56.52%
(c) Support to Ministries	165,982	2.04%	78,521	1.72%	47.31%
(i) Investment	106,482	1.31%	50,373	1.10%	47.31%
(ii) Current Outlay	59.500	0.73%	28.148	0.62%	47.31%
Financed by: (a) Borrowings	384,700	4.72%	240,314	5.27%	62.47%
(b) Other resources	-10,700	-0.13%	-58,787	-1.29%	549.41%
States: **State Plan Outlay** of which	275,500	3.38%	113,516	2.49%	41.20%
(a) Investment	202,000	2.48%	56,651	1.24%	28.05%
(b) Current outlay	73,500	0.90%	56,865	1.25%	77.37%
Financed by: (a) Central support	170,018	2.09%	81,528	1.79%	47.95%
(b) Borrowings	127,082	1.56%	132,233	2.90%	104.05%
(c) Other resources	-21,600	-0.26%	-100,245	-2.20%	464.10%
PSEs: **Outlay/Investment**	417,718	5.12%	204,338	4.48%	48.92%
Financed by: (a) Central Support	38,000	0.47%	21,477	0.47%	56.52%
(b) IEBR	379,718	4.66%	182,861	4.01%	48.16%
Total Plan Outlay of Public Sector	**859,200**	**10.54%**	**396,376**	**8.69%**	**46.13%**
Total Public Investment	**726,200**	**8.91%**	**311,362**	**6.82%**	**42.88%**

NOTES:

(1) All Union Territories (UTs) are clubbed with the States.

(2) A part of the investment outlay of the States will be towards budgetary support to State PSEs for investment purposes. Since this quantum is not yet known, it is being carried in the State budgets.

(3) The 'borrowings' of PSEs include all market-related funds including new equity issues, if any.

(4) 'Other resources' of the Centre and the States include balance on current revenues (BCR), miscellaneous capital receips (MCR) and external grants, less non-Plan capital expenditures.

(5) EBR of state PSEs and central PSEs are clubbed together under IEBR.

53. In order to appreciate the extent of slippage that has taken place in the Public Sector Plan during the first three years, the performance during the first three years of the Eighth Plan is presented in **Table 12**. As can be seen, by and large, the achievement in most of the items was well above the 50 per cent mark during the Eighth Plan, whereas they are significantly lower during the Ninth Plan (Table 11, last column). This indicates the seriousness of the short-fall that has occurred during the Ninth Plan, which has grave implications for the growth process, both in the short- and medium-term.

TABLE 12 : Share of Centre and States in Public Sector Plan Outlay Realisation during first three years of Eighth Plan

(Rs. Crore at 1991-92 prices)

	Eighth Plan Target	Realisation (1992-95)	Realisation as % of Target
1. Central Deptt.			
1.1 Outlay	247865	147404	59.47
1.2 Budgetary	103725	57982	55.90
1.3 IEBR	144140	89422	62.04
2. States & UTs			
2.1 Outlay	186235	96286	51.70
2.2 Central Assistance	84750	48953	57.76
2.3 States own Resources	101485	47333	46.64
Total Plan Outlay (1.1+2.1)	**434100**	**243690**	**56.14**

54. The over-2 percentage drop in public investment rate has occurred despite a sharp increase in government borrowing of almost 2 percentage points of GDP, from 6.3 per cent in the Plan to 8.2 per cent. Thus, there has been a turnaround of over 4 percentage points of GDP in the investment-cum-borrowing profile that had been targeted in the Plan. In contrast, the net position on the non-plan account, ie. non-plan expenditures less all non-debt resources, has gone up by 3.1 percentage points of GDP, from 0.39 per cent to 3.49 per cent. Therefore, the contribution of the public sector to aggregate demand in the economy has actually slipped by about 1 percentage point of GDP over this period in an ex-post sense. In ex-ante terms the situation would have appeared even worse since the deceleration of the economy consequent to this reduction in aggregate demand has reduced the denominator. Further, it must be emphasised that an increase in public consumption expenditure is an inadequate substitute for a decline in public investment. The latter has considerably stronger multiplier effect than the former, and is therefore more growth-enhancing both in the short -run as well as in the medium run.

55. The essential problem stems from fiscal difficulties that have been faced by both Central and State Governments, by which the need to protect public investment has run directly counter to the need to contain the fiscal deficit in the face of burgeoning current expenditures. In order to appreciate the magnitude and trend of those fiscal problems, various measures of deficit are presented in **Table 13**. The gross fiscal deficit of the Centre has been calculated on the basis of the new definition, i.e. by eliminating the share of small savings accruing to States. The net fiscal deficit further excludes other loans from the Centre to States, primarily through the Plan.

TABLE 13 : Measures of Deficit of The Government

(% of GDP)

	1996-97	1997-98	1998-99	1999-2000
(A) Combined Centre and States:				
1. Fiscal Deficit	5.9	6.8	8.5	8.8
2. Revenue Deficit	3.6	4.1	5.8	6.2
3. Primary Deficit	0.7	1.4	2.9	2.9
(B) Centre:				
1. Gross Fiscal Deficit	4.1	4.8	5.1	5.6
2. Loans from Centre to States	0.9	0.9	0.9	1.1
3. Net Fiscal Deficit (1-2)	3.2	3.9	4.2	4.5
4. Revenue Deficit	2.4	3.1	3.4	3.8
5. Primary Deficit*	-0.2	0.5	0.7	0.9
(C) States:				
1. Fiscal Deficit	2.7	2.9	4.3	4.3
2. Revenue Deficit	1.2	1.1	2.4	2.4
3. Primary Deficit	0.9	0.9	2.2	2.0

* Includes loans from Centre to the states, but excludes small savings and interest paid thereon

56. The most significant feature of this Table is the sharp increase that has taken place in the combined fiscal deficit of the Centre and the States during the Plan period, which has risen by almost 3 percentage points of GDP. However, the source of this increase has been different in the three years. In 1997-98, the first year of the Plan, bulk of the increase was on the Central account, and all of it due to a rise in the primary deficit. This was entirely expected as it reflects the impact of wage revision and payment of arrears by the Central Government. In fact the Plan had explicitly taken this into account and had expected a decline in the following year, which did not entirely materialise due to problems arising from the tax revenue side.

57. Nevertheless, the 1.7 percentage point deterioration in the combined fiscal deficit in 1998-99 was mainly due to a severe worsening of state finances, again primarily on account of wage revision and arrears payments. Although some of this was anticipated and built into the Plan, the magnitude was larger than expected and has spilled over into 1999-2000. Indeed, the dangers of delay become apparent from this episode. The Central

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pay revision involved arrears of about 20 months spread over two years, while the States have had to pay over 30 months of arrears on the average. The impact of such bunching can be very severe on fiscal management efforts. To complicate matters, tax devolution to the States from the Centre declined by over 0.6 percentage points of GDP in 1998-99 as compared to 1997-98. The combined effect has been to increase the borrowing requirements of the States to well above sustainable levels.

58. The increase in combined fiscal deficit in 1999-2000 is estimated to be almost entirely due to a further worsening of the Centre's budgetary position, despite some recovery in the tax/GDP ratio. The main contributing factors have been increases in Plan allocations, interest payments and defence expenditure as percentages of GDP. The last item was necessitated by the Kargil conflict, and marks a turning point in the trend of defence expenditure to GDP ratio. It appears that in the immediate future, there may be no option but to increase it even further. Although there appears to be no further deterioration of the fiscal deficit of States in relation to GDP, there has been no improvement either, and the level continues to be much too high for sustainability. It may be recalled that the Plan had estimated that a sustainable fiscal deficit ratio of the States could be no higher than 2.8 per cent of GDP if interest payments to current revenue ratios are not to increase explosively. In the case of the Centre too, the net fiscal deficit ratio of 4.5 per cent of GDP in 1999-2000 is significantly higher than the sustainable level of 3.4 per cent calculated in the Plan for stabilising the debt/GDP ratio.

59. The principal factor underlying the dismal performance of the public sector plan appears to be the failure to achieve tax targets that had been laid down in the Plan and on which the entire structure of financing of the Plan had been based. In order to appreciate the magnitude and composition of the shortfalls, the targets and achievements in the tax/GDP ratios of the Centre and the States are presented in **Table 14**. All figures in this Table, including the targets, have been expressed in terms of the new NAS series in order to ensure comparability. In the case of the Centre, the figures reported are for gross tax collection, ie. prior to devolution to States. For the States, only the states' own taxes are given.

60. The problem begins from the base year (1996-97) itself. As can be seen, the actual tax/GDP ratios in 1996-97 were significantly lower than the revised budget estimates (RE), which formed the basis of the Plan targets. As a consequence, the magnitude of tax effort required to meet the Plan targets would have had to be considerably greater than originally envisaged. Not only did this not happen, the first two years of the Plan (1997-98 and 1998-99) witnessed even further slippage in the tax/GDP ratios, particularly at the Centre. Matters would have looked even worse but for the Voluntary Disclosure of Income Scheme (VDIS) launched in 1997-98, which garnered a little over 0.65 per cent of GDP as additional income tax. However, since this was a one-time scheme, its effect did not carry through to 1998-99, which witnessed a very sharp decline in the tax/GDP ratios. Although the performance did improve significantly in 1999-2000, primarily due to the additional excise (cess) on diesel, there is a long way to go before the original Plan targets can be attained.

61. The main problem area appears to be indirect taxes collected by the Centre. A further break-down of the data reveals that although both Customs and Excise have contributed to the decline, the behaviour of the former

TABLE 14 : Tax Performance of the Government

(% of GDP)

Year		Direct	Indirect	Total	Target	Shortfall (% GDP)	Shortfall (Rs crore)
1996-97							
	Centre	2.93	6.53	9.46	9.86	0.40	5584
	States	0.16	5.08	5.23	5.48	0.25	3405
	Combined	3.09	11.61	14.69	15.34	0.65	8853
1997-98							
	Centre	3.26	5.92	9.18	10.01	0.83	11741
	States	0.62	4.74	5.36	5.52	0.16	2231
	Combined	3.88	10.66	14.54	15.53	0.99	14028
1998-99							
	Centre	2.72	5.44	8.16	10.21	2.05	31195
	States	0.61	4.69	5.30	5.55	0.25	3734
	Combined	3.33	10.13	13.46	15.76	2.30	34442
1999-2000							
	Centre	3.03	5.68	8.71	10.41	1.70	27568
	States	0.65	5.05	5.70	5.59	-0.11	-1845
	Combined	3.68	10.73	14.41	16.00	1.59	25755

has been more or less consistent with the behaviour of the relevant tax base, viz. value of imports. The latter, however, shows a massive reduction in buoyancy which is not explained by the behaviour of the tax base. The conclusion is inescapable - excise collections have been hampered either by inadequate tax effort or by misuse of the expanded MODVAT facility since 1996-97. Credence is lent to this view by the sharp increase that has taken place in MODVAT offset as a percentage of gross excise, especially between 1996-97 and 1998-99. Measures to check such misuse are imperative if the fiscal position of the Centre is to improve at all.

62. The tax revenues of the States, however, have performed more or less up to expectation. In fact, in 1999-2000, the State taxes to GDP ratio may actually cross the target. This should not, however, be a ground for complacency. In the first instance, the Plan had set fairly modest targets for tax collection by States, primarily because it was felt that not too much could be achieved without coordinated action among all States on taxation matters, which had not seemed likely at the time of Plan formulation. Moreover, the Plan had factored in the removal of a number of State taxes which are impediments to inter-state commerce, which continue to be in existence. Nevertheless, the tax potential of most States is considerably higher than actual collections. The large differences that exist between States in terms of tax performance are the surest indicators of this. However, it also needs to be mentioned that the fiscal problems faced by the States during first three years of the Plan, and the resulting high levels of borrowing, to a substantial extent are due to the shortfalls in Central tax collections. Even at a conservative estimate, the fiscal deficit of the States has been higher by about 0.5 per cent of GDP due to a lower-than targeted devolution of Central taxes.

63. The consequence of these shortfalls in tax collection has been both a reduction in Plan outlays and an unsustainable increase in fiscal deficits. As can be seen from the last column of Table 14, the total loss of revenue on this account during first three years of the Plan has been Rs.74,225 crore in 1996-97 prices, as compared to the Rs.59,750 crore shortfall in the Plan outlay of the Centre and States taken together (see Table 11). Thus, if tax collections had met the targets, full achievement of the target outlays would have been possible with an average 0.3 percentage point lower combined fiscal deficit to GDP ratio. Indeed, the situation would probably have been even more positive since account has not been taken of the multiplier effect of the higher public expenditures on GDP or of the lower interest burden arising from lower borrowing needs.

64. Despite the serious slippages that have taken place in public finances during first three years of the Plan, there are some positive indications that need to be taken note of. As can be seen, tax performance both at the Centre and in the States has shown significant improvement in 1999-2000. It is expected that this trend will strengthen in the future. In particular, two positive developments need to be mentioned. The first is the agreement that has been arrived at between the States to end 'tax wars' by implementing a uniform set of floor sales tax rates and doing away with sales tax concessions. This measure alone should improve the buoyancy of sales tax receipts substantially. Second, in the Union Budget 2000-01, an effective cap has been placed on the extent of MODVAT misuse, which should not only improve excise collections but corporate tax collections as well.

65. The impact of the wage revisions and payment of arrears too is more or less over. This alone should reduce both the non-Plan expenditure and the current outlays in the Plan as percentages of GDP quite significantly. The gradual reduction that has taken place in interest rates, particularly the decision to reduce interest rates on small savings, should lead to a deceleration in the rate of increase in the interest payments by Government. This is of particular importance to the States since first three years of the Plan have witnessed a sharp and unsustainable increase in the share of interest payments in current revenues. The States should also get some succour from the interim award of the Eleventh Finance Commission and the decision to move to the sharing of pooled taxes of the Centre that had been recommended by the Tenth Finance Commission. Finally, in 1999-2000 the PSEs have again started to raise funds from the market to finance their investment, which had virtually ceased in the previous two years.

66. On the negative side, the substantial addition to public debt that has occurred during the last three years will keep interest payment relatively high for the next few years, both at the Centre and in the States. Disinvestment proceeds too have not materialised to the extent targeted, and it is difficult to assess future progress on this account since there is still no clear policy on disinvestment and privatisation. The States, in particular, have shown little movement in this area. Moreover, as has been already mentioned, there is reason to believe that defence expenditure as a percentage of GDP may increase further, and provision will have to be made for it. Finally, the impact of the Fifth Pay Commission award on pension liabilities of the Government is severe and need to be explicitly taken into account.

67. Keeping these factors in mind, the public sector plan has been recast in its entirety on the basis of actual performance in the first three years and projections of most probable fiscal configurations for the Centre and the States during last two years of the Plan. This is shown in

Table 15. Clearly, these calculations are highly sensitive to the assumptions made regarding the time path of the fiscal deficits of the Centre and the States. It is always possible to provide higher support to the Plan by relaxing the fiscal deficit targets, but it has a cost in terms of the sustainability of public finances in the post-Plan period. Therefore, a balance has to be drawn between the need to provide sufficient resources for public investment for maintaining present and future growth and the requirements of macroeconomic stability.

68. It has, therefore, been assumed that the gross fiscal deficit of the Centre will be brought down to 4.8 per cent of GDP in the terminal year of the Plan (2001-02), yielding a net fiscal deficit to GDP ratio of about 3.8 per cent. Even this may be considered relatively high as compared to the sustainable figure of 3.4 per cent. Further correction is precluded by the fact that the expected impact of the Eleventh Finance Commission award in terms of additional tax devolution and non-Plan revenue deficit grants will have to be absorbed by the Centre. In the case of States, the terminal-year fiscal deficit, including loans from the Centre and small savings, is placed at about 3 per cent of GDP, which is again higher than the sustainable value of 2.8 per cent. Thus, the combined fiscal deficit of the Government is targeted to reduce to 6.8 per cent of GDP in the terminal year of the Plan, which is 2 percentage points lower than the peak value of 8.8 per cent expected to obtain in 1999-2000. Nevertheless, it should be apparent that further fiscal correction will be required during the Tenth Plan period if public finances are to be put on a sound footing.

69. The most important point to note in the above Table is that despite significant improvements in the last two years of the Plan, there is likely to be major shortfalls in every aspect of the public sector plan. Total outlay of the public sector is expected to be just over 86 per cent of the original Plan target and public investment even lower at only about 81 per cent. The comparable figures for the

TABLE 15 : Revised Outlays and Resources of the Public Sector

(Rs. Crore at 1996-97 prices)

	Revised IX Plan		Last two years (2000-02)		Revised as %
	Rs. crore	% GDP	Rs. crore	% GDP	of Original
Centre: **Central Plan Outlay** of which	325,227	3.99%	143,700	4.00%	86.96%
(a) Support to State Plans	147,628	1.81%	66,100	1.84%	86.83%
(b) Support to CPSEs	37,977	0.47%	16,500	0.46%	99.94%
(c) Support to Ministries	139,621	1.71%	61,100	1.70%	84.12%
(i) Investment	89,573	1.01%	39,200	1.08%	84.12%
(ii) Current Outlay	50,048	0.60%	21,900	0.62%	84.12%
Financed by:					
(a) Borrowings	419,514	5.15%	179,200	4.99%	109.05%
(b) Other resources	-94,287	-1.16%	-35,500	-0.99%	881.19%
States: **State Plan Outlay** of which	235,316	2.88%	121,800	3.39%	85.41%
(a) Investment	135,151	1.65%	78,500	2.19%	66.91%
(b) Current outlay	100,165	1.23%	43,300	1.20%	136.28%
Financed by:					
(a) Central support	147,628	1.81%	66,100	1.84%	86.83%
(b) Borrowings	195,086	2.39%	83,500	2.32%	153.51%
(c) Other resources	-107,398	-1.32%	-27,800	-0.77%	497.21%
PSEs: **Outlay/Investment**	366038	4.49%	161,700	4.51%	87.60%
Financed by:					
(a) Central Support	37,977	0.47%	16,500	0.46%	99.94%
(b) IEBR	328,061	4.02%	145,200	4.05%	86.40%
Total Plan Outlay of Public Sector	**740,976**	**9.09%**	**344,600**	**9.60%**	**86.24%**
Total Public Investment	**590,762**	**7.25%**	**279,400**	**7.80%**	**81.35%**

Eighth Plan were 90 per cent and 85.4 per cent respectively. Central budget support to the Ninth Plan is likely to be about 87 per cent of the target, which compares unfavourably with the 93 per cent realisation that was attained during the Eighth Plan. The main problem, however, is clearly in investment by States, which is expected to be no more than 67 per cent of the original target. This is a serious matter indeed since public investments in the State sector are essential for development of most of the key segments of the economy such as agriculture, health and education. A number of critical physical infrastructure sectors too involve significant State investment. The consequence of a shortfall of this magnitude is that there is likely to be a considerable backlog of capacities in these sectors and a shortage of pipeline investments for the post-Plan period.

70. Thus, although the Ninth Plan growth target of 6.5 per cent per annum is likely to be achieved, with the growth rate rising to over 7 per cent in the last two years, the sustainability of this growth path in future years, let alone any further acceleration, remains suspect. Furthermore, the non-economic objectives of the Plan relating to quality of life are unlikely to be attained since these are driven primarily by State Government expenditures. The private sector can no doubt take up some of the slack in aggregate terms, but sectoral inconsistencies will inevitably widen and may eventually retard private dynamism. It is imperative, therefore, that conditions for accelerating public investment with fiscal prudence be created as expeditiously as possible, especially in the State sector. In this regard, attention needs to be drawn to the possibility that the Centre's fiscal position may actually turn out better than projected. The projections have been based on relatively conservative assumptions with regard to tax revenues and disinvestment proceeds. In particular, the Centre's tax/GDP ratio has been projected to rise to 9.2 per cent in 2000-01 and further to 9.5 per cent in the terminal year of the Plan. There is scope for further improvement. If this happens, it is suggested that more focus should be placed on increasing public investment by States rather than on raising Central sector plan outlays. The modalities of doing so already exist through such schemes as Accelerated Irrigation Benefit Programme (AIBP), Accelerated Power Development Programme (APDP) and sharing of diesel cess for rural and district roads. Such initiatives need to be carried forward.

Appendix

Impact of Revision of National Accounts Statistics (NAS) on Parameters of the Ninth Five Year Plan

71. All Five Year Plans are based on the National Accounts Statistics (NAS) brought out by the Central Statistical Organisation (CSO) of the Ministry of Statistics and Programme Implementation. The Ninth Plan was based on the most recent NAS series available at the time, which used 1980-81 as its base year. In February 1999, however, the CSO brought out a new series of NAS with 1993-94 as the base year and discontinued the earlier 1980-81 base series. As a consequence, the performance of the economy during first three years of the Plan is available only in the new series, which is not comparable with the earlier series on which the Plan was based. In compiling the new series, the CSO changed not only the base year but also the coverage in terms of economic activities and commodities. As a result, there is no easy methodology by which the data available for the new series can be made comparable to the earlier.

72. In order to appreciate the magnitude of changes that have been effected in the new series, **Table 1** presents the macro-economic aggregates for the base year of the Plan (1996-97) as per the earlier series and the new series. As can be seen, the revisions are not only not uniform across the various aggregates, even the direction of change differs quite substantially. Thus, although the Gross Domestic Product (GDP) has been revised upward by 7.7 per cent, both investment and savings have been reduced in absolute terms. The magnitude of reduction is again not even between private and public investments and savings. In order to maintain macro balances, overall consumption has been revised significantly upwards, as has been the case with the current account deficit.

TABLE 1 : Macro Aggregates of the Base Year (1996-97)

	As per (1980-81 base)	Revised (1993-94 base)	Percentage Change
GDP	1149215	1237290	7.7
Investment	348487	335305	-3.8
Private Investment	251851	239895	-4.7
Public Investment	96636	95410	-1.3
Savings	334041	317567	-4.9
Private Savings	309710	294609	-4.9
Public Savings	24331	22958	-5.6
Consumption-Total	956778	1037999	8.5
Private Consumption.	824612	892392	8.2
Govt. Consumption	132166	145607	10.2
Current Account Deficit	14446	17738	22.8

73. The implication of these changes is that the base figures on which the Ninth Plan projections have been made can no longer be assumed to hold. Therefore, the application of various growth rates that have been estimated for the Plan period to the new base year figures will lead to inconsistent projections for future years. It needs to be recalled that the Plan models ensure macroeconomic equilibrium at each point in time in terms of the macro aggregates, and the growth rates of the various variables are derived from such balancing. Thus the growth rates derived from a particular configuration of macro aggregates in the base year — if they are applied to a different set of base year figures — will inevitably lead to inconsistent or non-equilibrium values for all future years.

74. The second set of problems that arise from the NAS revision relates to the validity of the macro-economic parameters which underlie plan projections and formulation of plan targets. The macro parameters of the base year (1996-97) as per the earlier and the new series are presented in **Table 2**. As can be seen, the changes are substantial and thereby render the parametric targets of the Plan non-monitorable on the basis of the new series. A particularly vexing issue that arises from such large changes in macro parameters is the validity of the various behavioral equations that have been used in Plan formulation. For instance, the sharp reduction in the private savings rate from 24.3 per cent in the old series to 21.6 per cent in the new raises doubts about the parametric estimates of the savings and consumption functions. These equations were estimated on the basis of the 1980-81 base NAS series, and a reasoned judgement has to be taken regarding the likely change in the behavioral parameters to make them consistent with the new.

TABLE 2 : Macro Parameters of the Base Year (1996-97)

(As % of GDPmp)

	As per Plan (1980-81 base)	Revised (1993-94 base)
Investment	27.3	24.6
Private Investment	19.7	17.6
Public Investment	7.6	7.0
Savings	26.2	23.3
Private Savings	24.3	21.6
Public Savings	1.9	1.7
Consumption-Total	74.9	76.2
Private Consumption.	64.6	65.5
Govt. Consumption	10.3	10.7
Current Account Deficit	1.1	1.3

75. The macro-economic variables apart, the new NAS series also embodies significant changes in the sectoral structure of the economy. A comparative picture for the

year 1996-97 is presented in **Table 3**. As can be seen, some of the changes are substantial. In particular, the share of Agriculture & Allied Activities and of Other Services has been increased substantially, while that of Manufacturing reduced. Since the Plan model is based on achieving a particular sectoral structure of the economy in some terminal year, which represents inter-sectoral consistency from the demand side, any change in the base year structure renders sectoral growth targets of the Plan invalid. Moreover, since the overall growth target is a weighted average of the sectoral growth targets, there is every likelihood of a mismatch between the mandated overall target and that arising from the sectoral targets. Resolution of these problems involves an entire reconsideration of the sectoral pattern of growth in order to ensure both inter-sectoral consistency as well as consistency with the macro-economic targets.

TABLE 3 : Sectoral Structure of GDP in Base Year (1996-97)

(Rs. Crore)

Sectors	As per Plan (1980-81 base)	Revised (1993-94 base)	Percentage Changes
1. Agri & Allied	310111 (27.0)	362605 (29.3)	16.9
2. Mining&Quarr	20531 (1.8)	27568 (2.2)	34.3
3. Manufacturing	222575 (19.4)	214690 (17.4)	-3.5
4. Elect,Gas&Water	32869 (2.9)	29944 (2.4)	-8.9
5. Construction	68661 (6.0)	63315 (5.1)	-7.8
6. Trade	156502 (13.6)	160323 (13.0)	2.4
7. Rail Transport	13185 (1.1)	13256 (1.1)	0.5
8. Other Transport	58806 (5.1)	51922 (4.2)	-11.7
9. Communications	15690 (1.4)	17201 (1.4)	9.6
10. Financial Services	75928 (6.6)	72044 (5.8)	-5.1
11. Public Administration	60619 (5.3)	65146 (5.3)	7.5
12. Other Services	113736 (9.9)	159276 (12.9).	40.0
Total GDP	**1149215 (100.0)**	**1237290 (100.0)**	7.7

NOTE : figures in brackets are % to total

76. Since there is no easy and technically correct way of recalibrating the Plan targets to the new NAS, it becomes necessary completely to recast the Plan in terms of the new data series. In doing so, however, the broad targets and the imperatives of the Plan need to be preserved. First and foremost, the target growth rate of 6.5 per cent per annum for the full five-year period as mandated by the NDC has been retained. This is not simply because of the mandate but also because it is eminently attainable, given the present trends. Second, the target growth rate for the Agriculture Sector also needs to be retained since it has dimensions beyond satisfying the requirements of demand and of inter-sectoral consistency. Finally, it is quite clear that the inter-sectoral consistency as given in the Plan will not obtain in the terminal year (2001-02) given the structural changes in the economy in the base year indicated by the revised NAS.

77. In order to recast the Plan targets with the above considerations in mind, full inter-sectoral consistency has been deferred to the post-Plan period, and the effective base for the reworking of the model has been taken to be the second year of the Plan (1998-99), for which full data are available. The revised sectoral growth targets, which yield the target GDP growth rate of 6.5 per cent per annum, are given in **Table 4**. It may be seen that the original sectoral growth targets with the new sectoral shares would have yielded an aggregate GDP growth rate of only 6.3 per cent per annum. The revisions, however, are not uniform across all sectors. The reason for this is that the steady-state paths from the new base year shares to the terminal year inter-sectorally balanced shares now reflect the performance of the different sectors during first two years of the Plan. As a consequence, the targets for the Services sectors by and large have been revised upwards, whereas for most others they have had to be revised downwards.

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TABLE 4 : Original and Revised Sectoral Growth Targets

(Per cent)

Sectors	Plan Targets (5 Years)	Revised Plan Targets (5 Years)
1.Agriculture & Allied Activities	3.9	3.9
2.Mining & Quarrying	7.2	5.1
3.Manufacturing	8.2	7.1
4.Electricity,Gas & Water	9.3	8.4
5.Construction	4.9	6.8
6.Trade	6.7	6.8
7.Rail Transport	3.9	3.6
8.Other Transport	7.4	6.8
9.Communications	9.5	11.9
10.Financial Services	9.9	10.4
11.Public Administration, etc.	6.6	8.5
12.Other Services	6.6	7.7
Total	**6.3**	**6.5**

78. Revision of the growth targets also necessitates a revision of the sectoral investment requirements. In doing so, however, the incremental capital-output ratios (ICORs) also have to be reconsidered in certain cases in order to have consistency with the revised NAS series. Therefore, for the most part, the ICORs derived from the earlier NAS series have been retained with some minor calibration for ensuring consistency with the new series. The net result of this exercise has been a significant reduction in the investment requirements of most sectors, resulting in a decline in the total investment requirement of the economy for achieving the target rate of growth. This fact, taken with the increase in the absolute value of GDP, has led to a sharp decline in the aggregate ICOR.

TABLE 5 : Original and Revised Sectoral Investment Requirements

(Rs. '000 crore at 1996-97 prices)

Sectors	Plan Requirements (5 Years)	Revised Plan Requirements (5 Years)
1. Agriculture	245.7	230.5
2. Forestry & Logging	4.1	3.0
3. Fishing	22.6	19.2
4. Mining & Quarrying	84.5	77.1
5. Manufacturing – Registered	438.4	424.8
6. Manufacturing – Unregistered	173.3	164.4
7. Electricity, Gas & Water	336.7	299.3
8. Construction	39.9	43.4
9. Trade	47.2	56.6
10. Hotels, etc:	21.1	20.4
11. Rail Transport	35.0	34.7
12. Other Transport	129.0	134.7
13. Communications	69.2	78.6
14. Financial Services	104.4	97.1
15. Real Estate	249.0	233.9
16. Public Administration, etc.	121.8	131.1
17. Other Services	48.7	53.9
Total Investment	**2170.6**	**2101.0**

CHAPTER 2

PUBLIC SECTOR PLAN, CENTRE & STATES : RESOURCES POSITION

Resources Of Centre

This chapter discusses Annual Plans 1997-98, 1998-99 and 1999-2000 and prospects for raising resources in remaining two years of the Ninth Five Year Plan (1997-2002) as part of **Mid-Term Appraisal (MTA)** of the Plan. The performance of the Central Government and the States in raising resources is assessed in the light of targets set for them in the Plan.

Plan Projections

2. A Public Sector Plan Outlay of Rs.8,59,200 crore (at base year 1996-97 prices) was approved for Ninth Plan of the Centre and States. In financing this order of outlay, Public Sector Enterprises (PSEs) were expected to raise Rs.3,40,409 crore in Internal and Extra Budgetary Resources (IEBR): Rs.2,85,379 crore by PSEs at the Centre and Rs.55,030 crore by their counterparts in States. For the rest, it was estimated, the Centre, States and Union Territories (UTs) together would mobilize Rs.5,18,791crore in Budgetary Resources (BR). The total Outlay is made up of: Centre's Plan Outlay of Rs.4,89,361crore; allocation of Rs.2860 Crore to UTs without legislature and Plan Outlay of Rs.3,66,979 Crore for States and UTs with legislature. Thus, 57 per cent of the total Outlay has been allocated for the Centre (ministries & departments) and the UTs without legislature; the rest 43 per cent provided for States and the UTs with legislature. Mobilization-wise, on the other hand, the Centre is expected to raise Rs.3,74,000 crore, or 72 per cent of the aggregate Budgetary Resources of Rs.5,18,791 crore, while States and UTs with legislature will find Rs.1,44,791crore, or just 28 per cent of the total. Against this, what is assigned to the Centre is 'only Rs.2,03,982 crore which is 39 per cent of the total Budgetary Resources; the rest Centre-raised 33 per cent of the total is earmarked for transfer to States and UTs as Central Assistance for financing their Plans. Including their own effort, then, the share of States and UTs in total Budgetary Resources would be 61 per cent, that is, Rs.3,14,809 crore. In other words, while the Centre was expected to raise 72 per cent of the aggregate Budgetary Resources, it would retain eventually only 39 per cent to finance its own Plan; States and UTs would raise 28 per cent but would have 61 per cent of overall Budgetary Resources to finance their Plans.

Budgetary Resources of Centre

3. The Centre provided Gross Budget Support (GBS) of Rs.2,05,290 crore in the three Annual Plans 1997-98 to 1999-2000. At comparable prices, this amounts to Rs.1,81,527 crore, showing a shortfall of Rs.17,104 crore or 8.6 per cent of Plan projections of Rs.1,98,631 crore. Details are given in the Table below:

Table 1
Budgetary Resources Raised by Centre

(Rs. in Crore at current prices)

Resources	Projections for 1997-2000	Realisation during 1997-2000	Increase/ Decrease (-) during 1997-2000
1. Balance from Current Revenues	(-)32,135	(-)94,902	(-)62,767
2. Miscellaneous Capital Receipts	(-)17,256	(-)10,991	6,265
3. Borrowings and Other Liabilities	2,74,349	3,11,183	36,834
Total	**2,24,958**	**2,05,290**	**(-)19,668**

The realization/ mobilisation of resources shown above includes Revised Estimates for 1999-2000. Hence, any eventual shortfall in 1999-2000 vis-à-vis the Revised Estimates taken into account in these calculations would deteriorate the position further.

Balance from Current Revenue (BCR)

4. The BCR experienced in first three years of the Plan is given in the table below:.

Table 2 A
Balance from Current Revenues (BCR) of Centre
(1997-98 to 1999-2000) - PROJECTIONS

(Rs. crore at current prices)

Sl. No.	Items	1997-98	1998-99	1999-2000
1.	Gross Tax Revenue	1,42,720	1,55,711	1,97,173
2.	States' share of Tax Revenue	43,562	40,854	57,180
3	Net Tax Revenue	99,158	1,14,857	1,39,993
4	Non Tax Revenue	39,356	45,137	51,682
5	Total Revenue Receipts	1,38,514	1,59,994	1,91,675
6	Non Plan Revenue Expenditure	1,55,377	1,75,566	1,91,375
7.	BCR	- 16,863	-15,572	300

Table 2 B
Balance from Current Revenues (BCR) of Centre (1997-98 to 1999-2000) – REALISATION

(Rs. crore at current prices)

Sl. No.	Items	1997-98	1998-99	1999-2000
1.	Gross Tax Revenue	1,39,221	1,43,797	1,69,979
2.	States' share of Tax Revenue	43,548	39,145	43,510
3	Net Tax Revenue	95,672	1,04,652	1,26,469
4	Non Tax Revenue	38,214	44,858	53,035
5	Total Revenue Receipts	1,33,886	1,49,510	1,79,504
6	Non Plan Revenue Expenditure	1,54,265	1,86,002	2,17,535
7	BCR	- 20,379	-36,492	-38,031

5. Thus, compared to the negative balance of Rs. (–) 32,135 crore, the actuals of BCR during first three years of the Plan amounted to Rs. (-) 94,902 crore; thus, the negative balance had risen three times the projected level. The shortfall in revenue realization was to the extent of Rs. 27,283 crore and the increase in Non Plan expenditure amounted to Rs. 35,484 crore in these three years. In other words, the revenue expenditure increased by 6.8 per cent while gross revenue receipts decreased by 5.6 per cent vis-à-vis the projections. The following graph illustrates that the Non Plan revenue gap particularly in these years of the Ninth Plan has widened to unprecedented levels. The factors leading to such worsening situation in Balance from Current Revenues are discussed below:

Revenue Receipts

6. The performance/ growth of the economy in general and the Non-Agricultural Gross Domestic Product (GDP) growth in particular have direct bearing on Revenue Receipts of the Government. It appears that the Tax Revenue Receipts of the Central Government in India have moved in a narrow band as in neighbouring countries in the period between 1994 and 1999 as shown in the table below:

Table 3
Central Government Tax Revenue

(As percentage of GDP)

Sl.No.	Country	1994	1995	1996	1997	1998
1	Malaysia	19.70	19.06	18.95	19.48	15.49
2	Sri Lanka	17.17	17.90	16.95	16.01	14.53
3	Pakistan	13.25	13.70	14.11	12.75	13.51
4	Indonesia	15.17	16.02	15.45	16.67	
5 (a)	India (to Gross Tax Revenue)	9.14	9.41	9.45	9.19	8.16
(b)	India (to Net Revenue)	6.68	6.93	6.88	6.31	5.94

7. However, in the case of India, the Tax Revenue in relation to GDP has been consistently declining during first three years of the Ninth Plan. Our past experience in this regard is summarized in the table-4:

Net Revenue Receipts and Non-Plan Revenue Expenditure - Centre

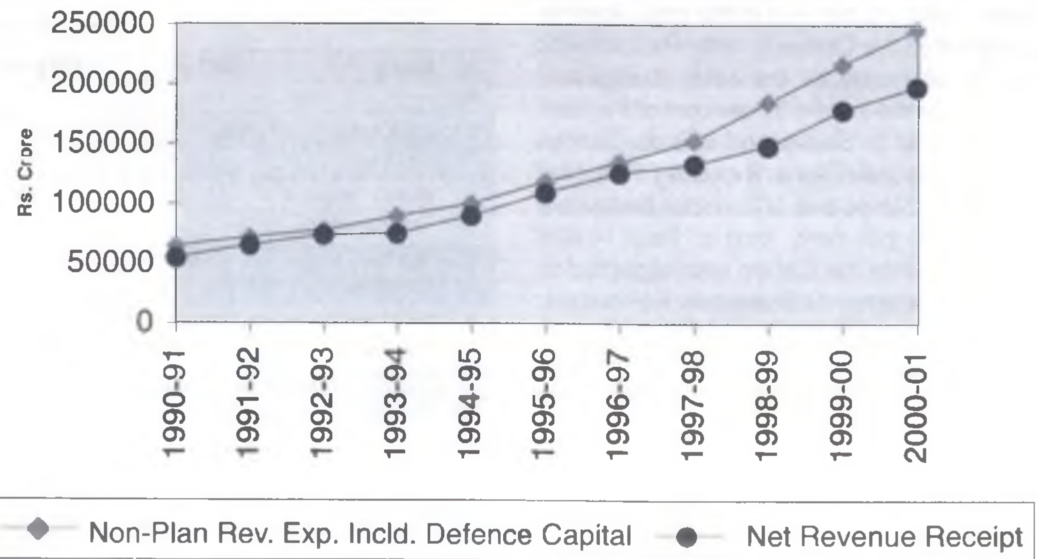


Table 4
Central Tax Revenue and Buoyancy

Average for Financial Years	Gross Tax Revenue	Corporation Tax	Personal Income	Customs Duties	Excise Duties
A. Revenue as a Percentage of Non Agricultural GDP at Factor Cost					
1989-90 to 1991-92	14.08	1.41	1.36	4.87	6.00
1994-95 to 1998-99 RE	12.00	1.84	1.63	3.66	4.37
1999-2000 BE	11.62	2.03	1.77	3.31	4.20
B. Buoyancy of Central Taxes with respect to Non Agricultural Gross Domestic Product					
1989-90 to 1991-92	0.926	1.346	1.050	0.743	0.888
1994-95 to 1998-99 RE	0.880	1.324	1.086	0.795	0.702
1999-2000 BE	1.313	0.995	1.724	1.260	1.324

8. The details given above indicate that the Gross Tax Revenue of the Centre as a percentage of Non Agricultural GDP has substantially decreased during the period between 1994-95 to 1999-2000 compared to the years between 1989-90 to 1991-92. This adverse situation as regards the Centre's tax revenue has also impacted the buoyancy of Central Taxes. The period between 1989-90 to 1991-92 had experienced buoyancy of 0.926 of Central Taxes with respect to Non Agricultural Gross Domestic Product. This buoyancy came down to 0.880 during the period 1994-95 to 1998-99. The experience with individual Central Taxes in these two periods in terms of collection as well as buoyancy has been mixed. Whereas Revenue Receipts from Corporation Tax and Personal Income Tax with reference to GDP growth have improved during 1994 to 1999, the receipts from Customs duties and Excise duties have substantially decreased. In terms of buoyancy, Corporation Tax and Excise Duties have been less elastic during this period whereas Personal Income Tax and Customs Duties showed marginal improvement in the period 1989-90 to 1991-92. The important point is that the growth in collections from Central Excise and Customs has substantial impact on overall tax revenue collection and buoyancy. This is because of their larger weightage in Gross Tax Revenue. This is further clear from the analysis of buoyancy of direct and indirect taxes and Gross Tax Revenue, shown in the table below:

Table 5
Buoyancy in Tax Revenue of Centre

Years	Non-Agri. GDP (Rs. crores)	Growth (Percent)	Buoyancy Direct Taxes	Buoyancy Indirect Texes	Buoyancy Gross Tax Revenue
1993-94	617253				
1994-95	731133	18.45	1.85	1.03	1.18
1995-96	878839	20.20	1.19	0.91	1.02
1996-97	999347	13.71	1.08	1.14	1.15
1997-98	1128201	12.89	2.06	0.03	0.63
1998-99	1303269	14.63	-0.26	0.45	0.22

9. The Budgets for the three years of Ninth Plan period included many tax reform measures. The 1997-98 Budget proposals aimed at rationalization of tax rates, widening of tax net and reduction of peak rates. It was expected that moderate tax rates would encourage savings, foster economic growth and motivate voluntary compliance. However, the decline in overall economic growth during 1997-98 including negative growth of agriculture and substantial shortfall in manufacturing growth had adverse impact on the revenue receipts of the Government. In addition, the fall in value of dutiable imports on account of lower volume and lower unit price affected customs revenue.

10. Several exemptions and incentives were included in the Budget for 1998-99. Besides, the progressive reduction in tariff and broad-banding of rates of customs duties were also continued. The impact of negative agricultural growth in the previous year and the decline in growth rate of manufacturing sector had their negative impact on revenue receipts, despite improvement in the overall GDP growth rate. The reform measures mentioned above were continued in the Budget for 1999-2000 also. However, the expected buoyancy and salutary impact of the Budget proposals covering the reform measures did not materialize in first three years of the Plan period. The table-5 shows the deviation of tax revenues compared to Budget Estimates.

11. The analysis of tax revenue of the Centre leads to the following inferences:

a) The Gross Tax Revenue declined in the period 1994-95 – 1999 -2000 compared to the period 1989-90 to 1991-92 in terms of gross collection as well as buoyancy in relation to non-agricultural GDP;

Table 6
TAX REVENUES – Budget Estimates & Actuals
Increase (+) / Decrease (-) Over Budget Estimates

Year	Corporation Tax (a)	Income Tax (b)	Customs Duties (c)	Union Excise Duties (d)	Total (a+b+c+d)	Gross Tax Rev. Receipts
1992-93	774	119	-1436	-1379	-1922	-1887
1993-94	-440	-298	-5534	-2054	-8326	-9124
1994-95	1342	1087	1589	647	4665	5158
1995-96	987	2145	6257	-2593	6796	7462
1996-97	-1033	491	-1584	-1876	-4002	-3383
1992-97	**1630**	**3544**	**-708**	**-7255**	**-2789**	**-1774**
1997-98	-1844	5021	-12357	-4238	-13418	-14426
1998-99	-2057	600	-6902	-4431	-12790	-13431
1999-2000	-1935	-556	-2569	-2865	-7925	-6881

b) The Gross Tax Revenue receipts have moved in a narrow band of 9.14 per cent and 9.45 per cent of GDP;

c) The share of Union Excise and Customs in total tax revenue has been declining during the three years of the Ninth Plan; but still they constitute 71 per cent of Gross Tax Revenue from the four major taxes and therefore the declining trend needs to be reversed;

d) The decline in buoyancy of tax revenue, thus, is accounted also by a failure to realize even the Budget Estimates/ targets especially in the case of Union Excise and Customs;

e) The negative growth of Income Tax during 1998-99 and the marginal growth of Corporation Tax in 1997-98 substantially affected revenue receipts during the initial periods of the Plan. Incremental growth in per capita revenue collection declined with the higher growth in the number of assesses during 1996-97 and 1997-98. This supports the conclusion that lowering of tax liabilities did not result in improvement in compliance among higher income groups. Thus the question of arrears of income tax needs to be addressed in a more concerted manner; in the case of direct taxes in general, enforcement of tax compliance needs more attention. It is seen that the arrears demand as on 1.4.99 was Rs.41,827 crore with little improvement at Rs.44,861 crore a year later (on 1.4.2000).

Non-Tax Revenue

12. The share of Non Tax Revenue in Centre's revenue receipts was hovering around 20 per cent during the period from 1991-92 to 1996-97. An upward trend has been observed during the three years of the Ninth Plan when the percentage of Non Tax Revenue in revenue receipts increased to 21.5 per cent in 1997-98 and to about 24 per cent in the subsequent two years due to increases from interest receipts, receipts from other general services and dividends and profits. Nevertheless, these are lower than the Plan projections. Interest receipts constituted a major 66 per cent of Non Tax Revenue for the Centre since 1994-95. Of the total interest receipts, interest receipts from Plan and Non Plan loans advanced to States constitute 75 per cent. There is not much scope for further improvement in interest receipts due to the limits indicated by the Finance Commission. Thus, the improvement in Non Tax Revenue has to be realized through dividends and profits accruing to the Government. Dividends and profits from the Reserve Bank of India, the commercial banking sector, other financial institutions and public sector enterprises constituted about 14 per cent of the Non Tax Revenues in 1997-98, up from 6.6 per cent in 1991-92 to around 12 per cent till 1996-97. In absolute terms, dividends and profits increased from Rs.3,248 crore in 1995-96 to Rs. 9,410 crore in 1998-99. As regards dividends from Central PSUs to the Central Government, the position as of 1998-99 is follows:

Table 7
Dividends from PSEs

Year	Total Number	PSEs earning profit	PSEs Paying dividend	Dividends (Rs. crore)
1996-97	236	129	80	2836
1996-97	236	134	88	3609
1998-99	235	127	83	4932

13. To sum up, improvement in the Non Tax Revenue of the Centre would be possible only if efficiency of the Public Sector Undertakings improves across the board resulting in higher dividend income to the Government. In addition, service charges in Social Services sector also need to be raised commensurate with increase in Plan investment. At present, the contribution from Social Services to Non Tax Revenue is less than half a percent, constituting around 0.4 per cent during 1994-95 to 1997-98 and declining to 0.32 per cent subsequently. Interest receipts may not increase substantially. It is possible and necessary to raise Non Tax Revenue above 3 per cent of GDP realized now.

Non-Plan Revenue Expenditure

14. Trends in the growth of Non Plan Expenditure over the decade 1990-91 to 2000-01 are given below:

Interest payments, defence expenditure (including capital outlay on defence) and subsidies constituted between 68 per cent and 70 per cent of total Non Plan expenditure of the Centre since 1991-92. In 1997-98 these constituted 69.52 per cent. The interest liability alone accounted for 33.06 per cent in 1991-92 and thereafter moved higher to remain in the range of 36 per cent to 40 per cent. The graph below illustrates this trend. Hence reduction of interest liability is critical in any scheme of reducing the Non Plan Revenue Expenditure. The increase in interest burden is a result of rising debt liability of the Government and the market -related interest rate that the Government pays on its domestic borrowing. The weighted average of interest rates on Central Government securities rose from 7.03 per cent in 1980-81 to 11 percent in 1985-86 and continued to remain below 12 per cent up to 1991-92. Thereafter, it exceeded 12 per in the years 1995-96 and 1996-97 to reach 13.75 per cent and 13.69 per cent but came down to 12.01 per cent (1997-98) and to 11.86 per cent (1998-1999). The interest liability on other important constituents of domestic debt of the Government sector — mainly small savings and provident funds — has also been rising. The average implicit interest rates on such liabilities which stood at 7.22 per cent in 1980-81 also moved to 10.81 per cent in 1990-91 and further to 12.15 per cent in 1997-98.

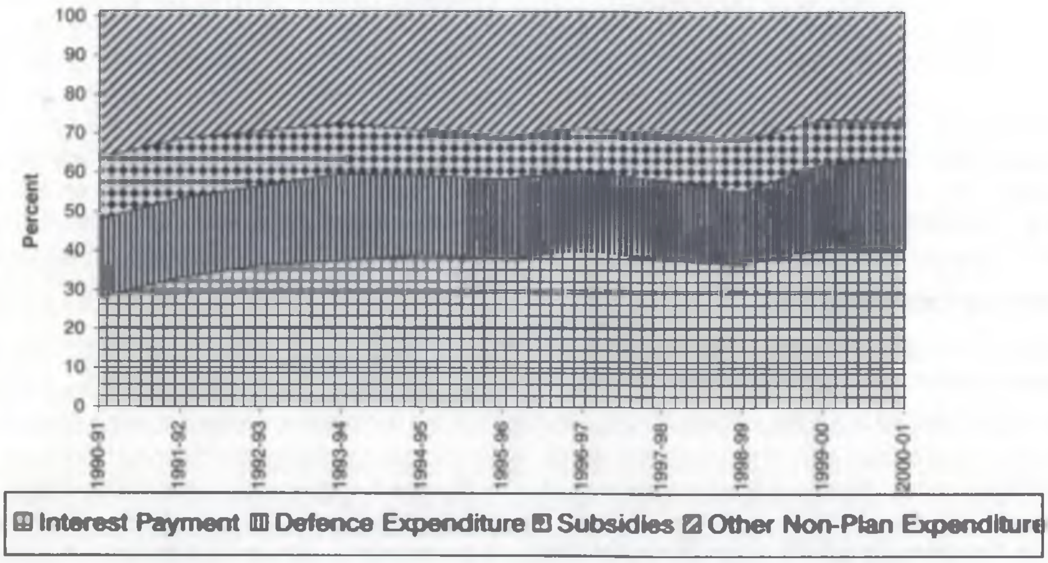
15. The assessment of resources for the Plan was based on the assumption that the interest burden of Central Government during a year would be at an average rate of 9.5 per cent payable on additional debt to be incurred by it in the preceding year as measured by Gross Fiscal Deficit. However, due to the market-related rate of interest on Government's domestic borrowings, Centre's interest liability exceeded the projections substantially by Rs.10,000 crore in first three years of the Plan. Though the marginal reduction effected during 1999-2000 in interest on small savings instruments of public provident fund and general provident fund could be considered as a timely and appropriate measure, a lasting and sustainable solution to the mounting interest burden in a regime of market -related interest rates lies in substantial reduction of fiscal deficit.

Table 8
Trends in Non Plan Expenditure: Centre

(Rs. in crore)

Sr. No	ITEMS	1990-91 Actuals	1991-92 Actuals	1992-93 Actuals	1993-94 Actuals	1994-95 Actuals	1995-96 Actuals	1996-97 Actuals	1997-98 Actuals	1998-99 Actuals	1999-00 RE	2000-01 Budget
1	Interest Payments	21498	26596	31075	36741	44060	50045	59478	65637	77882	91425	101266
	Growth over prev. year		23.71	16.84	18.23	19.92	13.58	18.85	10.36	18.66	17.39	10.76
2	Defence Expenditure	15426	16347	17582	21845	23245	26856	29505	35278	39897	48504	58587
	Growth over prev. year		5.97	7.55	24.25	6.41	15.53	9.86	19.57	13.09	21.57	20.79
3	Subsidies	12158	12253	11995	12682	12932	13372	16364	19505	24786	25692	22800
	Growth over prev. year		0.78	-2.11	5.73	1.97	3.40	22.38	19.19	27.08	3.66	-11.26
4	Grants to States & UT Govts.	3982	3921	2645	2405	2334	5967	6230	4420	4923	6582	17676
	Growth over prev. year		-1.53	-32.54	-9.07	-2.95	155.66	4.41	-29.05	11.38	33.70	168.55
5	Other Non-Plan Revenue Expenditure	11310	11692	13709	15198	17306	21739	23275	28255	37094	43810	44757
	Growth over prev. year	3.38	17.25	10.86	13.87	25.62	7.07	21.40	31.28	18.11	2.16	
6	Loans & Advances to State & UT Govts	7606	5532	4728	6264	9753	10538	10606	15817	23893	30047	32183
	Growth over prev. year		-27.27	-14.53	32.49	55.70	8.05	0.65	49.13	51.06	25.76	7.11
7	Small Savings to States & UTs	7026	5481	4264	5000	9675	9990	10671	15732	23788	26937	32000
8	Loans & Advances to States & UTs excluding Small Savings	580	51	464	1264	78	548	-65	85	105	3110	183
	Total (1 to 6)NPE incl SS	**71980**	**76341**	**81734**	**95135**	**109630**	**128517**	**145458**	**153095**	**184582**	**246060**	**277269**
	Growth over previous Year		**6.06**	**7.06**	**16.40**	**15.24**	**17.23**	**13.18**	**5.25**	**20.57**	**33.31**	**12.68**
	Total (1 to 6)NPE excl. SS	**64954**	**708260**	**77470**	**90135**	**99955**	**118527**	**134787**	**137363**	**160794**	**219123**	**245269**
	Growth over previous Year		**9.09**	**9.33**	**16.35**	**10.89**	**18.58**	**13.72**	**1.91**	**17.06**	**36.28**	**11.93**

Share (percent) of Subsidies, Defence Expenditure & Interest Payment in Non-Plan Expenditure



16. Defence Expenditure declined to 18.77 per cent of the total Non Plan Expenditure in 1998-99 from around 20 per cent during the period from 1990-91 to 1997-98. However, this proportion of defence expenditure was likely to increase to 21.6 per cent in 1999-2000 and the trend may continue due to our commitment to enhance the quality of defence preparedness.

17. The Plan projections for other Non Plan Revenue Expenditure excluding salaries and wages were based on the assumption of a nominal growth rate of 7.5 per cent and the real value remaining at the level attained in 1998-99. A growth rate of 2.5 per cent per annum in real terms and nominal growth rate of 10 per cent in respect of salaries and wages was considered on the expectation that Centre's annual average burden in implementing Fifth Pay Commission's recommendations would be less onerous in 1997-98 than in later years of the Plan. As against this assumption, the situation that emerged was quite different. From Rs.20,396 crore in 1996-97, the expenditure on pay and allowances for Central civilian regular employees including employees of the Union Territories increased to Rs.27,430 crore in 1997-98, a sharp 34.5 per cent surge over the previous year, mainly due to the Pay Commission award. The increase in 1998-99 was moderate at Rs.30,095 crore, which is 9.7 per cent higher compared to 1997-98. However, the revised estimates for 1999-2000 — at Rs.38,659 crore — represent an increase of 28.45 per cent. Thus, the enormous rise in this category has resulted in the overall increase in the category " Other Non Plan Revenue Expenditure" as shown below:

Table 9
Other Non Plan Revenue Expenditure

Year	Total Other Non Plan Revenue Expenditure (Rs. in crore)	Annual Growth (%)
1996-97	23275	
1997-98	28255	21.40
1998-99	37094	31.28
1999-2000(RE)	43810	18.11

18. It appears that the growth in other Non Plan Revenue expenditure will be considerably lower in the coming two years of the Ninth Plan. For instance, the 2000-01 Budget Estimates of this outlay at Rs.44,757 crore represents only 2.16 per cent growth over 1999-2000. However, a substantial reduction in Central civilian staff strength is not likely in the coming two years. There is not much scope, then, for further reduction in the growth of revenue expenditure on pay and allowances over the Budget Estimates for 2000-01. Thus, with expenditure on defence and other Non Plan Revenue expenditure increasing at rates higher than experienced during the Eighth Plan period, a reduction in subsidies remains very critical for bringing down Non Plan expenditure in coming years. The explicit subsidy including subsidies on food, fertilizer (indigenous, imported and decontrolled) provided by the Central Government increased at phenomenal rates in the years 1996-97 – 1998-99 as shown below:

Table 10
Expenditure on Subsidy

Year	Amount of Subsidy (Rs. crore)	Annual Growth (%)
1995-96	13372	
1996-97	16364	23.38
1997-98	19505	19.19
1998-99	24786	27.08
1999-2000(RE)	25692	3.66

19. It is worth mentioning that the actual expenditure on subsidies far exceeds the Budget Estimates. Food subsidy and subsidy on indigenous fertilizer are expected to increase by Rs.1, 000 crore and Rs.670 crore at the Revised Estimates over Budget Estimates for 1999-2000 even when the overall increase in subsidies was expected to be very low at 3.66 per cent over the previous year. Besides these explicit subsidies, there are implicit subsidies incurred by the Government by way of providing budgetary support to loss-making Departmental Undertakings and writing-off of equity in loss-making public sector banks, which need special mention. An analysis carried out by Comptroller & Auditor General (CAG) on cost incurred in and revenue generated from 20 postal services shows that the department incurred a net loss of Rs.895 crore in 1998-99; an increase of 30 per cent over the Rs.688 crore loss by 18 services during 1997-98. A similar analysis has been made on losses by nationalised banks. The Government has written off these losses. Whereas only Rs.425 crore was the loss by the nationalised banks in 1994-95, the loss jumped to Rs.1,532 crore in 1996-97 and further to Rs.2,574 crore in 1998-99. It would thus appear that the budgetary support provided to meet losses by those banks and by the postal department was more than the Rs.3,135-crore plan outlay provided by the Centre for Health and Family Welfare in 1998-99.

20. Thus, the Non Plan Expenditure in first three years of the Plan far exceeded the Plan projections (except for defence in first two years). The following table captures the widening gap between revenue receipts and Non-Plan Revenue Expenditure of the Centre.

21. Along with expenditure on defence and on Government establishment, the interest liability is likely to remain well above Plan projections in remaining two years of the Plan as well despite the reductions in rates introduced recently. Therefore, the option available is limited to a substantial selective reduction in subsidies in conjunction with a higher growth in Revenue receipts through widening of the tax base and plugging of tax evasion. Serious and sustained efforts in both areas are required to maintain Plan investment even at the present level in real terms.

EXTERNAL ASSISTANCE – Increase in Repayment Liability

22. The Ninth Plan envisaged that the External Assistance routed through Budget to finance Plan projects of Government Departments (Central, States and UTs) would be of the order of Rs.60,018 crore. As against this, the inflow of External Assistance in first three years of the Plan amounted to Rs. 30,343 crore at current prices as shown below:

Table 12
External Assistance

(Rs. Crore)

	Ninth Plan Projections (1997-2000) at 1996-97 Prices	Actuals (at current prices)		
		1997-98	1998-99	1999-2000 (RE)
Loans	48856	7859	10015	9616
Grants	10062	1018	987	848
Total	60018	8877	11002	10464

Table 11
Non Plan Revenue Gap

Sr. No	ITEMS	1990-91 Actuals	1991-92 Actuals	1992-93 Actuals	1993-94 Actuals	1994-95 Actuals	1995-96 Actuals	1996-97 Actuals	1997-98 Actuals	1998-99 Actuals	1999-00 RE	2000-01 Budget
1	Total Non-Plan Revenue Expenditure (Inc. Def.Cap)	65447	72122	78398	90188	100665	118846	135806	154265	186002	217535	246692
2	Total Tax Revenue (Gross)	57576	67361	74637	75743	92294	111224	128762	139220	143797	169979	193384
	(2-1)	-7871	-4761	-3761	-14445	-8371	-7622	-7044	-15045	-42205	-47556	-53308
3	Total Revenue Receipts (gross)	69552	83322	94721	97747	115923	139415	161340	177450	188655	223013	250848
	(3-1)	4105	11200	16323	7559	15258	20569	25534	23185	2653	5478	4156
4	Tax Revenue (Net)	42978	50069	54044	53449	67454	81939	93701	95673	104652	126469	141323
	(4-1)	-22469	-22053	-24354	-36739	-33211	-36907	-42105	-58592	-81350	-91066	-105369
5	Total Revenue Receipts (Net)	54954	66030	74128	75453	91083	110130	126279	133901	149510	179503	198787
	(5-1)	-10493	-6092	-4270	-14735	-9582	-8716	-9527	-20364	-36492	-38032	-47905

23. The inflow of External Assistance works out to Rs.26,903 crore at 1996-97 prices, accounting for 44.82 per cent of Plan Projections. Though some improvement in gross External Assistance took place in 1998-99 and 1999-2000 compared to the base year, the net inflow of external borrowings has been declining very fast as shown below:

Table 13
External Assistance (Net)

(Rs. crore)

	1996-97	1997-98	1998-99	1999-2000
Gross External Borrowings	9534	7859	10015	9616
Repayments	6547	6768	8095	8710
Assistance (Net)	2989	1091	1920	906

The net inflow of External Assistance (borrowings), according to the 2000-01 Budget Estimates, would deteriorate further to negative inflow of Rs – 44 crore.

24. The following table shows details of actual State-wise utilization of External Assistance during first three years of Ninth Plan. There have been perceptible changes in the utilization of External Aid by States. The number of States availing External Assistance and implementing Externally Aided Projects (EAPs) has increased from 15 in Eighth Plan period to 18 during 1997-98 – 1999-2000. Assam which had not availed External Assistance previously has started implementing EAPs from 1997-98 onwards. Manipur and Meghalaya have also initiated EAPs from 1998-99 and 1999-2000 respectively. In magnitude of external assistance availed during 1997-98 – 1999-2000, Andhra Pradesh ranks first followed by West Bengal, Uttar Pradesh, Maharashtra and Tamil Nadu. Maharashtra which availed the maximum assistance during the Eighth Plan period now occupies the fourth place. Jammu & Kashmir continues to be unable to avail external aid. Bihar is at the rear end still though its size and economy warrant a much higher order of External Assistance. There are two main inhibiting factors for such low utilization: resource constraint to provide matching contribution from domestic resources to avail External Aid and perception of the donors.

Miscellaneous Capital Receipts

25. Two main items of Miscellaneous Capital Receipts are recoveries of loans and advances and proceeds from disinvestments. The actual receipts from recoveries of loans and advances have exceeded Plan targets by Rs.1,397 crore during first three years of the Plan.

Disinvestment

26. The scheme of financing Ninth Plan proposed that "the receipts from disinvestments" may have to be

Table 14
Utilization of External Assistance by States

(Rs.crores)

Sl. No.	State	1997-98	1998-99	*1999-2000*	1997-2000 (3+4+5)	Percent to Total	Rank
1	2	3	4	5	6	7	8
1	Andhra Pradesh	832.53	1028.98	1519.30	3380.81	22.22	1
2	Assam	6.23	29.31	51.04	86.58	0.57	14
3	Bihar	67.90	134.70	126.01	328.61	2.16	12
4	Gujarat	200.46	290.00	503.71	994.17	6.53	7
5	Haryana	113.69	167.08	203.22	483.99	3.18	11
6	Himachal Pradesh	4.56	22.12	10.37	37.05	0.24	16
7	Karnataka	173.10	301.61	420.91	895.62	5.89	8
8	Kerala	3.77	26.85	38.55	69.17	0.45	15
9	Madhya Pradesh	54.16	92.05	590.01	736.22	4.84	9
10	Maharashtra	646.11	583.53	151.11	1380.75	9.08	4
11	Manipur	0.00	7.38	6.19	13.57	0.09	17
12	Meghalaya	0.00	0.00	0.62	0.62	0.00	18
13	Orissa	264.37	348.85	457.00	1070.22	7.03	6
14	Punjab	63.32	110.98	33.33	207.63	1.36	13
15	Rajasthan	204.79	221.14	207.93	633.86	4.17	10
16	Tamil Nadu	305.42	321.93	586.73	1214.08	7.98	5
17	Uttar Pradesh	540.98	487.62	369.59	1398.19	9.19	3
18	West Bengal	560.46	957.08	765.48	2283.02	15.01	2
	TOTAL	**4041.85**	**5131.21**	**6041.10**	**15214.16**	**100.00**	

substantially improved in the three years 1999-2002 of the Plan so that such receipts add up to at least Rs.23,895 crore (at 1995-96 prices) during the Plan period. Though the achievement in first two years of the Plan accords with the projections, the expected improvement has not taken place in 1999-2000. The actual realization from disinvestments against the Plan targets is given below:

Table 15
Disinvestment

(Rs. crore)

	1997-98	1998-99	1999-2000	2000-01
Plan Projections	906	5000	7000	8000
Realisation/ Estimates	912	5874	2600 (RE)	10000 (BE)

27. The shortfall in realization from disinvestments in first three years of the Plan amounted to Rs. 3,520 crore while estimates for the next two years amount to Rs.17,000 crore. Unless the disinvestment programme is expedited, it would be difficult to realize the Plan estimates in this regard.

Gross Fiscal Deficit

28. In the scheme of financing the Plan the Fiscal Deficit was expected to decline from 6.1 per cent to 4.1 per cent of GDP during the Plan period. Because of the substantial shortfall in the revenue receipts and receipts from disinvestments and of the phenomenal increase in Non Plan Revenue Expenditure compared to Plan projections as brought out above, it was inevitable for the Government to take recourse to a higher order of Gross Fiscal Deficit to finance its expenditure (Plan and Non Plan). Details giving trends in Gross Fiscal Deficit of the Centre is given in Table-18. Table 16 would show that the fiscal deficit-GDP ratio has been rising during first three years of the Ninth Plan. The actual ratio has been substantially higher than Plan projections as shown below:

Figures in brackets indicate the Gross Fiscal Deficit as percentage of GDP

It would be also clear from Table 17 above that fiscal deficit accounted for 32 per cent of the total Central Government expenditure in the years 1997-98 and 1998-99, which is higher than the ratio for the base year 1996-97. The position has deteriorated further during 1999-2000 when 36 per cent of the Central Government expenditure would be financed through recourse to fiscal deficit. The relationship between Government expenditure, revenue receipts, non-debt capital receipts and fiscal deficit is shown in the following graph.

Gross Budgetary Support to Central Plan and Central Assistance to States and UTs

29. Annexures I and II contain details of Gross Budget Support to Centre's Annual Plans and Central Assistance to States' and UTs' Annual Plans. It may be seen that despite resource constraint, the Central Government provided Central Assistance to States and U.Ts according to the pattern envisaged in Ninth Plan.

Financing of Plan Investment of Central Public Sector Enterprises

CPSEs – An Overview

30. There are 240 Central Public Sector Enterprises (CPSEs) as on 31.3.99 (excluding 6 insurance companies and 2 financial institutions) out of which 235 are in operation

Table 16
Fiscal Deficit – GDP Ratio

(Rs.crore/Percent)

Sr. No	ITEMS	1990-91 Actuals	1991-92 Actuals	1992-93 Actuals	1993-94 Actuals	1994-95 Actuals	1995-96 Actuals	1996-97 Actuals	1997-98 Actuals	1998-99 Actuals	1999-00 RE
1	Fiscal Deficit - conventional	44632	36324	40174	60257	58233	61278	66808	88937	113766	135836
2	Small Savings to States & UTs	7026	5481	4264	5000	9675	9990	10671	15732	23788	26937
3	Fiscal Deficit - New method(1-2)	37606	30843	35910	55257	48558	51288	56137	73205	89978	108899
4	G D P at current market prices Base:1980-81	535534	616799	705918	810749	963492	1118964	1276974	1432964	1666455	1826434
5	Fiscal Deficit (conventional) / GDP-cmp (1980-81) ratio(1/4)	8.33	5.89	5.69	7.43	6.04	5.48	5.23	6.28	7.1	7.5
6	Fiscal Deficit (new method) / GDP-cmp (1980-81) ratio(3/4)	7.02	5	5.09	6.82	5.04	4.58	4.4	5.17	5.61	6.01
7	GDP at current market prices Base 1993-94	582574	670977	767924	859220	1009906	1181961	1361952	1515616	1762609	1931819
8	Fiscal Deficit (conventional) / GDP-cmp (1993-94) ratio(1/7)	7.66	5.41	5.23	7.01	5.77	5.18	4.91	5.87	6.45	7.03
9	Fiscal Deficit (new method) / GDP-cmp (1993-94) ratio(3/7)	6.46	4.6	4.68	6.43	4.81	4.34	4.12	4.83	5.1	5.44

Table 17
Fiscal Deficit – Central Government Total Expenditure Ratio

(Rs. in crore)

Sr. No	ITEMS	1990-91 Actuals	1991-92 Actuals	1992-93 Actuals	1993-94 Actuals	1994-95 Actuals	1995-96 Actuals	1996-97 Actuals	1997-98 Actuals	1998-99 Actuals	1999-00 RE	2000-01 Budget
1	Expenditure (inc. Def.Cap)	65447	72122	78398	90188	100665	118846	135806	154265	186002	217535	246692
2	Non Plan Expenditure	76933	80453	85958	98191	113361	131901	147473	172976	212547	224343	250387
3	Plan Expenditure	28365	30961	36660	43662	47378	46374	53534	59077	66818	79395	88100
4	Total Expenditure(1+2)	105298	111414	122618	141853	160739	178275	201007	232053	279365	303738	338487
5	Fiscal Deficit - conventional	44632	36324	40174	60257	58233	61278	66808	88937	113766	135836	148160
6	Ratio (4/3)	0.42	0.33	0.33	0.42	0.36	0.34	0.33	0.38	0.41	0.45	0.44
7	Fiscal Deficit - New method	37606	30843	35910	55257	48558	51288	56137	73205	89978	108899	116160
8	Ratio (6/3)	0.36	0.28	0.29	0.39	0.3	0.29	0.28	0.32	0.32	0.36	0.34

Table 18
Gross Fiscal Deficit

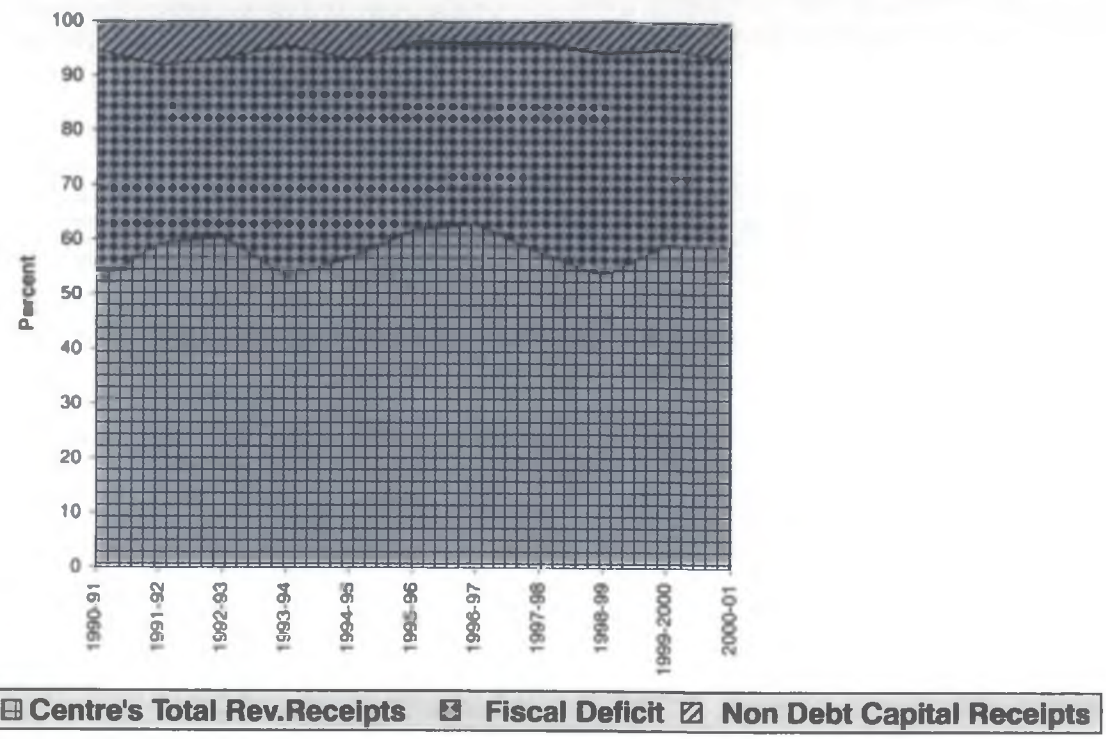
(Rs. in crore at current prices)

Year	Plan Projections	Actuals
1997-98	86,347 (6.14)	88,937 (5.87)
1998-99	91,928 (5.74)	1,13,766 (6.45)
1999-2000	96,074 (5.24)	1,35,836 (7.03)

2

and 5 under construction. Among those in operation, 160 are manufacturing/ producing goods and 75 are rendering services. The investment in all 240 enterprises amounted to Rs.2,30,140 crore as on 31.3.99. Besides the Central Government which holds a major share of the investment, some State Governments, holding companies (which are themselves Public Sector Undertakings), financial institutions, banks and private parties have also stakes in these enterprises as shareholders. Of the 235 operating enterprises, according to the Public Enterprises Survey, 127 earned profit; 106 incurred loss and 2 neither earned profit nor incurred any loss during 1998-99. These enterprises as a whole have earned a net profit (profit after tax) of Rs.13,235 crore after setting off loss of loss-incurring enterprises, giving a return of 14.5 per cent on capital employed (profit before interest and tax to capital employed).

Financing of Central Government Expenditure (Plan & Non-Plan)



Resource Mobilisation by CPSEs in Ninth Plan

31. The investment by Central enterprises constitutes an important and major component of the Centre's Plan Outlay. The Ninth Plan projections include plan investment of Rs.3,23,379 crore by CPSEs which is 66 per cent of the estimated total Plan Outlay of Rs.4,89,361 crore allocated for the Centre. The financial resource for this investment comes from two sources, namely, Budgetary Support (BS) from the Government and Internal and Extra Budgetary Resources (IEBR) raised by each enterprise. The quantum of budgetary support for the Plan outlay of CPSEs was about 50 per cent during the 'eighties. This declined to about 15 per cent during the Eighth Plan and has been projected to be 11.75 per cent in the Ninth Plan. In other words, 88 per cent of Plan outlays of the Central enterprises other than those in the Infrastructure Sector and loss-making enterprises in the manufacturing sector was to be funded through IEBR. The declining Budgetary Support to and an increasing dependence on IEBR by the enterprises in financing their investment is a result of limited budgetary resources available with the Government, which is primarily allocated to take care of needs of social and economic sectors in the Plan. It also reflects the policy shift to ensure that these enterprises in due course emerge as commercially viable independent units capable of generating sufficient resources not only for maintaining current levels of production but also for modernization and expansion. Thus, in view of the shrinking Budgetary Support to CPSEs, resources generated within the enterprises (Internal Resources comprising retained profit and depreciation reserves) and their domestic and external borrowings become critical for achieving targeted investment of the enterprises.

32. For the purpose of estimating resources for the Plan and Plan investment by CPSEs, the functioning of 155 and 162 enterprises coming under the administrative control of Central Ministries/ Departments was examined at the time of formulation of Centre's Annual Plans 1999-2000 and 2000-01 respectively. (The similar number examined during preparation of Annual Plans 1997-98 and 1998-99 was 153 and 155 respectively). In the three years of Plan period (1997-2000) the enterprises received 56.52 per cent of the estimated Plan Budgetary Support and raised IEBR to the extent of 47 per cent of the Plan projections. The Budgetary Support received was 13.9 per cent of the investment while the share of IEBR was 86.1 per cent of the investment. Thus, even in the lower order of investment, the IEBR share has been less than Plan projections. Details are given in the following Table:

Table 19
Plan Investment of CPSEs
(Ninth Plan Projections and Revised Estimates for 1999-2000)

(Rs. Crore)

Sl. No.	Item	IX Plan Projection	97-2000 (RE)	Col. (4) as % of Col. (3)
1	2	3	4	5
I	Budgetary Support	38000	21478	56.52
II	IEBR (IIA + IIB)	285379	133403	46.75
IIA	Internal Resources	161524	79082	48.96
IIB	Borrowings/ EBR	123855	54321	43.86
III	Plan Outlay of CPSEs (I + II)	323379	154881	47.89

Note: Col. 4 is the sum of Revised estimates in the respective Annual Plans.

* The Ninth Plan Document contains projections only for BS and IEBR. The break- up into its EBR and IR is based on a report of the Working Group on Resources for the Centre for the Ninth Plan.

Figures are at constant 1996-97 prices

33. The difficulty faced by the enterprises in generating internal resources and mobilizing loan capital from the market is evident from the fact that the Revised Estimates of IEBR have been substantially lower than Budget Estimates as brought out in the Table below and in Annexure III.

2

34. The shortfall in Budgetary Support compared to Budget Estimates was only 2.48 per cent whereas the shortfall in IEBR accounted for 97.52 per cent of the overall shortfall in Plan investment of these enterprises in the three years 1997-2000. That clearly showed the difficulty faced by the enterprises to raise internal resources and to borrow from the market. It would be clear that the operational efficiency of enterprises must be improved to a great extent, given the magnitude of shortfall in generating internal resources compared to Plan projections/ Budget Estimates. It is also pertinent that the capacity to generate internal resources determines to a certain extent the ability to tap the market in terms of credit rating of the enterprise concerned. On the other hand, the availability of funds through borrowings provides sufficient working capital and capital for investment. Thus, the lower generation of internal resources and shortfall in borrowings mutually affect the resources position of the enterprises. At present most of CPSE bonds are privately placed with banks and financial institutions. This captive market exists mainly due to the high degree of safety associated with those bonds. In spite of government guarantee, the enterprises have not been able to tap the market to the extent required during 1997-98 and 1998-99

Table 20
Financing Pattern of Plan Investment 1997-2000

(Rs. Crore)

Sl. No.	Item	1997-2000 (BE)	1997-2000 (RE)	Shortfall	Contribution to shortfall (%)
1	2	3	4	5	6
I	Budgetary Support	22,106	21,478	628	2.48
	Equity	14,760	15,321	-562	-2.22
	Loan	7,346	6156	1,190	4.70
II	IEBR (IIA + IIB)	1,58,091	1,33,403	24,688	97.52
IIA	Internal Resources	95,603	79,082	16,521	65.26
IIB	Borrowings/ EBR	62,488	54,321	8,167	32.26
	Bonds/ Debentures	30,812	23,479	7,333	28.97
	ECB	14,635	12,477	2,159	8.53
	Others	17,041	18,365	-1,325	-5.23
III	**Plan Outlay of CPSEs(I + II)**	**1,80,197**	**1,54,881**	**25,316**	**100.00**

Note: Col. 3 & 4 are the sum of the BE and RE in the respective Annual Plans (taken at constant 1996-97 prices)

mainly on account of primary and secondary markets remaining subdued. Similarly, the uncertainties in international markets also affected the External Commercial Borrowings. The only source of borrowing that was fully tapped during these three years was the issue of tax-free bonds (by specified CPSEs). Details of resources raised through such 'tax-free bonds over the years are provided in Annexure – IV. In view of the Government's decision to phase out tax-free bonds, the CPSEs may not have further scope for this facility. For the Annual Plan 2000-01, the Government has accorded sanction for issue of tax-free bonds to the extent of Rs. 600 crore only as against the allocation of Rs. 950 crore for the Annual Plan 1999-2000. The request for allocation of tax-free bonds for higher amounts continues. It appears that the capacity of enterprises to generate resources through borrowings from the markets is mainly determined in the short run by the prevailing interest rates.

35. The IEBR raised by the Public Sector Enterprises during the first three years of the Ninth Plan amounts to Rs.1,33,403 crore as against projected Rs.2,85,379 crore at comparable prices, accounting for 46.75 per cent of the Plan estimates. With the Gross Budgetary Support of Rs.99,997 crore (at 1996-97 prices) so far provided to the Central Plan, the total Plan Outlay of the Centre in the first three years of the Ninth Plan works out to 47.7 per cent of the five-year estimate of Rs. 4,89,361 crore.

36. The Ninth Plan projections of IEBR are mostly accounted for (80 per cent) by enterprises coming under major sectors of Petroleum and Natural Gas (27.5%), Telecommunications (16.3%), Railways (11.8%), Power (10.7%), Coal (5.9%) and Steel (5.7%). The Table-21 provides relevant details regarding budget estimates and revised estimates of the resources raised by these enterprises.

37. Hence, realization of the projected level of investment for the Ninth Plan in respect of CPSEs depends upon the success with which the enterprises are able to mobilize the resources. In general, two of the measures introduced to improve functioning of the Public Sector Enterprises in general need to be mentioned. Professionalisation of the Boards of enterprises is one of the areas. Adequate numbers of non-official directors are being appointed on those. The MOU system being followed on the recommendations of Arjun Sen Gupta Committee's Report is another endeavour to provide proper balance between accountability and autonomy. During the years 1997-98 and 1998-99, 108 PSEs and 109 PSEs signed MOU with the respective administrative Ministries and Departments with the objective of improving functioning of the enterprises.

Resources of States:

38. The aggregate plan resources of states can be broadly classified into two groups i.e. States' Own Resources and Central Assistance. While the former consists of States Own Funds and Borrowings of States, Central Assistance includes Central Assistance (Domestic) and Central Assistance for Externally Aided Projects. Ten states (eight in North East Region, Jammu & Kashmir ((J&K) and Himachal Pradesh) are classified as Special Category States (SCS) due to their hilly terrain and overall economic backwardness; the remaining fifteen states are classified as Non-Special Category States (NSCS). The mid-term appraisal of financial resources of the states is based on their performance during first

Table 21
IEBR of Central Ministries during 1997-2000

(Rs. Crore)

Sl.No 1	Ministry/ Department 2	1997-2000 (BE) 3	1997-2000 (RE) 4	Shortfall Col 3-4 5	Contribution to Shortfall (%) 6
2.	Telecommunications	39,861	34,941	4,919	20
1.	Petroleum & Natural Gas	36,353	32,342	4,011	16
3	Power	15,840	12,479	3,361	14
4.	Steel	7,7 65	5,121	2,644	11
6.	Fertilizers	4,608	2,483	2,125	9
5	Coal	8,858	7,092	1,766	7
8	Surface Transport	5,563	3,816	1,746	7
7.	Mines	2,904	1,818	1,086	4
10.	Railways	18,580	17,242	1,338	5
9.	Civil Aviation	5,494	4,422	1,072	4
11.	Others	12,266	1,21,756	628	3
	Total	**1,58,092**	**1,33,403**	**24,696**	**100**

Figures are at constant 1996-97 prices

three years of the Ninth Five Year Plan vis-à-vis Plan projections, as reflected in estimates of states' financial resources for 1997-98 (Actuals), 1998-99 (Pre-actuals) and 1999-2000 (LE). The combined scheme of financing of all States with Ninth Plan projections and realisation at 1996-97 prices is at Annexure-IV. Details of Balance from Current Revenues (BCR) are at Annexure–V and that of Additional Resource Mobilisation (ARM) is at Annexure-VI.

39. The aggregate Ninth Plan resources for States were projected at Rs.3,54,664.29 crore (at 1996-97 prices) which comprised Rs.1,68,775.00 crore of Central Assistance (47.6 per cent) , Rs.1,82,075.10 crore of Borrowings of States (51.3 per cent) and Rs.3,814.19 crore (1.1 per cent) of Own Funds of the States. (Similar Eighth Plan projections of states — Rs.1,75,485 crore (at 1991-92 prices) — comprised Rs.85,981.01 crore of Central Assistance (49 per cent, Rs.86,919.51 crore of borrowings of states (49.53 per cent and Rs.2,584.50 crore (1.47 per cent) of own funds of States). As against these projections, States have been able in first three years of the Ninth Plan to mobilise only 44.4 per cent of aggregate plan resources at constant prices. Though the realisation level of Total Central Assistance is 45.1 per cent and of Borrowings of States 88.4 per cent, the achievement in mobilizing Own Funds of the States is extremely low i.e. (-) 33.5 per cent. On the other hand, in first three years of the Eighth Plan the States were able to mobilize 45.34 per cent of aggregate plan resources at constant prices. The realisation level of total Central Assistance was 43.99 per cent and of Borrowings of States 52.67 per cent. The achievement in mobilisation of Own Funds of States was very low i.e. (-) 156.40 per cent. In general, these trends indicate the very low level of States Own Resources and the high level of borrowings. A detailed analysis of the realisation of various items of financial resources is given below.

2

Own Funds of States :

40. The Own Funds of States include Balance from Current Revenues (BCR), Contribution of State Level Public Enterprises (SLPEs), Miscellaneous Capital Receipts (MCR), Special Plan Grants of the Tenth Finance Commission (TFC), Additional Resource Mobilisation (ARM), Adjustment of Opening Balance and Net Surplus from Local Bodies. In Ninth Plan projections, Own Funds of States were approved at Rs.3,814.19 crore (i.e. 1.1 per cent of aggregate plan resources); against this the actual realisation was as low as (-) Rs.79,597.68 crore. The Own Funds of States corresponding to Eighth Plan were projected at Rs.2,584 crore (i.e. 1.47 per cent of aggregate plan resources) against which the actual realisation during first three years was Rs.(-)4,042.06 crore. The low level of Own Funds is a reflection of low BCR, MCR, ARM and unsatisfactory performance of SLPEs. The Own Funds are observed to be very low for U.P. Andhra Pradesh and Madhya Pradesh, followed by Rajasthan, Maharashtra, Haryana, Punjab, Bihar, Orissa and Tamil Nadu. The low level results in excessive dependence on borrowings and Central Assistance for Plan financing. The projection and realisation level of States' Own Funds are summarised in the Table-22.

Table – 22
Own Funds of State (At 1996-97 prices)

(Rs. Crore)

Items	Ninth Plan Projections	Realisation (1997-2000)	% Realisation of Ninth Plan Projections
All States	3,814.19	(-) 79,597.68	(-) 2,086.88 (-)(156.40)
Of which			
i) Special Category States (SCS)	(-) 5,627.32	(-) 16,106.93	(-) 286.23 (52.45)
ii) Non Special Category (NSCS)	9,441.51	(-) 63,490.75	(-) 672.46 (19.74)

* Figures in parentheses indicate % realisation during Eighth Plan

Borrowings of States:

41. Borrowings of states comprise State Provident Funds, Loans against Small Savings, (SLR Based) Open Market Borrowings , Negotiated Loans from LIC, GIC, NABARD, etc. and Bonds/Debentures. In Eighth Plan projections, such borrowings were approved at Rs.86,919.51 crore against which the states could realise (during first three years of the Eighth Plan) only Rs.45,783.06 crore ,i.e. 52.67 per cent. Borrowings constituted about 49.53 per cent of aggregate plan resources in the Eighth Plan projections. In the Ninth these were approved at Rs.1,82,075.10 crore; against this States borrowed in first three years Rs.1,61,044.62 crore, i.e. about 88.45 per cent of the projections. Though projected at only 51.3 per cent of aggregate plan resources in the Ninth Plan, the borrowings surged to 102.16 percent during first three years. This trend is a matter of serious concern; any alarming rise in dependence on borrowed funds for plan financing has serious implications on debt position of the states. If the present trend continues, it will only push their debt liability to unsustainable levels in remaining two years of Ninth Plan and subsequent period. However, while controlling the borrowings levels, the state governments have also to curb diversion of borrowed funds for financing revenue expenditure. The investment of these funds in socio-economic sectors which are vital for overall development of the state may be necessary and the debt burden can be offset through future income generation from these remunerative investments. The rising trend in State borrowings is mirrored in the Table below:-

Table – 23
Borrowings of States (At 1996-97 prices)

(Rs. Crore)

Items	Ninth Plan Projections	Realisation (1997-2000)	% Realisation of Ninth Plan Projections
All States	1,82,075.10	1,61,044.62	88.45 (52.67)
Of which			
i) Special Category	13,009.91	9,512.09	73.11 (60.42)
ii) Non Special Category States	1,69,065.19	1,51,532.52	89.63 (52.21)

*Figures in parentheses indicate % realisation during Eighth Plan

Central Assistance

42. Central Assistance includes broadly two categories i.e. Central Assistance (Domestic) and Central Assistance for Externally Aided Projects. The first one comprises Normal (Formula – based) Central Assistance and Central Assistance for Area Programmes. The Formula–based allocation is based on Gadgil/Mukherjee Formula as approved by National Development Council (NDC) in 1991,. The other Central Assistance for Area Programmes includes a variety of Special Area Programmes: Basic Minimum Services (BMS), Slum Development Scheme(SDS) , Accelerated Irrigation Benefit Programme (AIBP), Tribal Sub Plan (TSP), Hill Area Development Programme (HADP), Western Ghats Development Programme (WGDP), Border Area Development Programme (BADP), etc.

43. The Gadgil Mukherjee Formula provides for assistance to States in the Grant/Loan ratio of 90:10 for SCS and 30:70 for the NSCS. Thus it is important to note that Central Assistance also consists of certain proportion of loans which adds to the debt burden of State Governments.

44. Total Central Assistance for Ninth Plan was projected at Rs.1,68,775.00 crore against which the actual realisation in first three years was Rs.76,187.85 crore i.e. about 45 per cent of the projections. SCS could realise about 59 per cent of the projected level of Central Assistance and NSCS only 42 per cent of it because of low utilisation of Central Assistance for Externally Aided Projects (EAPs). NSCS' utilisation percentage of EAPs was as low as 26 per cent and of SCS 23 per cent of the projections showing hurdles in the progress of EAPs in the states. The Eighth Plan projected Central Assistance at Rs.85,981.01 crore against which the actual realisation in first three years of that Plan was Rs.37,824.03 crore i.e. about 43.99 per cent of the projections. SCs could realise only 36.47 per cent and NSCS 47.35 per cent of Central Assistance projected for the Eighth Plan .

45. In Ninth Plan projections, Central Assistance made up 43.2 per cent of the aggregate plan resources of NSCS and about 82 per cent for SCS. In actual realisation, it constituted 39 per cent for NSCS and 151.5 per cent for SCS. This ishows the extent of increasing dependence of SCS on Central Assistance because of very low level of States' own resources for plan financing. Since Normal Central Assistance is not project- based and includes a loan component (i.e. 70 per cent for NSCS

and 10 per cent for SCS), there is a need to reduce diversion of these funds for non-plan, non-development expenditure. Trends in the realisation of Central Assistance vis-à-vis projections are illustrated in the Table below:

Table – 24
Total Central Assistance (At 1996-97 prices)

(Rs. Crore)

Items	Ninth Plan Projections	Realisation (1997-2000)	% Realisation of Ninth Plan Projections
All States	1,68,775.00	76,187.85	45.14 (43.99)
Of which			
i) Special Category	33,100.87	19,411.49	58.64 (36.47)
ii) Non-Special Category	1,35,674.13	56,776.36	41.85 (47.35)

* Figures in parentheses indicate % realisation during Eighth Plan

46. In continuation of foregoing discussion on the three broad sub-heads of aggregate plan resources i.e. States Own Funds, Borrowings of States and Central Assistance, a detailed analysis of each of the components is given below:

Balance from Current Revenues (BCR):

47. The emerging scenario of Balance from Current Revenue (BCR) indicates serious deviations from Ninth Plan projections. The BCR over first three years of Plan period is more than four times the projection which is already a very high negative figure. The fact that the realised BCR has far exceeded the projection for 5 years within only three years of the Plan shows the extent of financial crisis States are caught up in. States with such performance are Haryana, Andhra Pradesh, Kerala, Goa, Maharashtra and Arunachal Pradesh. The deviation in BCR from the projections has been due to a combined impact of slow growth in current revenues in contrast to a fast increase in non-Plan revenue expenditure, necessitating greater dependence on borrowings for financing the Plan. The deterioration in BCR and the consequent increase in dependence on borrowings can be seen from *Annexure-IV*.

48. The realisation of Revenue Receipts in first three years of Ninth Plan is 53.3 per cent of the projected target for 5 years. The statewise analysis of Revenue Receipts can be seen in the Table given below. The highest revenue realisation as a percentage of projected targets during first three years of the Plan period has been for Punjab (69.8 per cent) while the lowest has been Goa (38.59 per cent). The revenue receipts of States consist of mainly Tax and Non Tax Revenue and Non-Plan grants from Centre. The tax revenue realisation for all States is about 52.5 per cent of the projected target.

Table 25
Realisation levels of Revenue Receipts and Expenditure

S.No.	Revenue Receipts			Revenue Expenditure		
States	High *	Medium **	Low***	High*	Medium **	Low***
NSC	Punjab	Karnataka, Kerala, Maharashtra, Orissa, Tamil Nadu, U.P., M.P., Rajasthan, Andhra, Pradesh, Haryana,	Bihar, Gujarat, W.Bengal, Goa.	Andhra, Haryana Karnataka Orissa, Punjab, Rajasthan, UP, W. Bengal	Gujarat, Maharashtra, M.P., Tamil Nadu, Kerala	Goa, Bihar
SC	Assam	Himachal Pradesh, Sikkim	Arunachal, J&K, Manipur, Meghalaya, Mizoram, Nagaland, Tripura,	Arunachal, Manipur Assam, Mizoram, Sikkim, J&K, Tripura, Himachal Pradesh	Nagaland, Meghalaya	None

*Note: * State with realisation levels of 60% or more of Ninth Plan target*
*** State with realisation level of 50% to 60% of Ninth Plan target.*
**** State with realisation level of 50% or less of Ninth Plan target.*

49. At a disaggregate level, there is considerable variation among the states in realisation of Tax Revenue and Non Tax Revenue. The Tax Revenue ranges from 76.7 per cent of Ninth Plan target in Haryana to 40.6 per cent in Bihar among NSC states. Among SC States it ranges from 58.7 per cent in Assam to 44 per cent in J&K. For Non Tax Revenue the figure ranges from 258.8 per cent of target in Punjab to 15.9 per cent in Goa.among NSC states and 163.7 per cent in Tripura to (-)344% in Nagaland among SC states.

50. The State efforts may be better understood by a look at realisation of the State taxes in the Table below. States with a high realisation are Haryana, Madhya Pradesh, Assam, Himachal Pradesh and Sikkim and with low realisation Gujarat, Kerala, West Bengal, Bihar, Arunachal Pradesh and Mizoram. The low-realisation states have to take special measures to increase the realisation of State taxes like widening the tax net by imposing taxes on agricultural income, tax rationalization and better tax administration.

Table 26
Realisation level of State Taxes

States	High*	Medium**	Low***
NSC	Haryana, M.P.	Goa, Karnataka, Andhra Pradesh, Maharashtra, U.P., Orissa, Punjab, Rajasthan, T.N.	Gujarat, Kerala,W.Bengal Bihar
SC	Assam, Himachal, Sikkim	J&K, Meghalaya, Manipur, Nagaland, Tripura	Arunachal Pradesh, Mizoram

Note: * *State with realisation levels of 60% or more of Ninth Plan target*
** *State with realisation level of 50% to 60% of Ninth Plan target.*
*** *State with realisation level of 50% or less of Ninth Plan target.*

51. The trend in non plan Revenue expenditure of States can be seen in Annexure-V. It is evident from this data that realisation of the expenditure in first three years of Ninth Plan is about 60 per cent of the projected target. This is a warning signal for the States. The state wise realisation levels can be seen in the Table 26 above. The non-Plan Revenue Expenditure broadly consists of Non Plan Non Development, Non Plan Development and Provision for revision of DA and Pay scales.

52. The Non-Plan Non-development expenditure for all States in first three years of the Plan is 66.4 per cent of the Plan target. Debt services, one of the main components of this, has been growing at about 9.8 per cent in 1998-99 (Pre-actuals) over the previous year and at 19 per cent in 1999-2000 (LE) over the previous year. Table 27 below shows the debt service levels of States.

Table 27
Debt Service Level of States

States	High *	Medium **	Low ***
NSC	Goa , Haryana, Karnataka, Maharashtra, Punjab, UP, MP	Andhra, Bihar, Gujarat, Kerala, Orissa, Rajasthan, Tamil Nadu, West Bengal	Bihar
SC	Mizoram, Sikkim, Tripura J&K	Arunachal Pradesh, Manipur Himachal Pradesh, Meghalaya, Nagaland, Assam	None

Note: * *State with realisation levels of 60% or more of Ninth Plan target*
** *State with realisation level of 50% to 60% of Ninth Plan target.*
*** *State with realisation level of 50% or less of Ninth Plan target.*

53. The interest payment, one major component of debt servicing, also has been growing at the same 9.8 per cent in 1998-99 (Pre-actuals) over the previous year and at 19 per cent in 1999-2000 (LE) over the previous year. As against this, the revenue receipts have been growing only at the rate of (-) 4.29 per cent in 1998-99 (Pre-Actuals), and 9.1 per cent in 1999-2000 (LE) (growth taken vis-à-vis the previous year). Debt accumulation while state resources are still unable to cope with debt repayment could be alarming. The other important component of non Plan Non Development expenditure is 'Other Non-Development Expenditure' and mainly consists of administrative services, fiscal services, pensions and other retirement benefit. This also is a steadily growing component of states' expenditure and calls for fiscal discipline to contain growing deterioration of Non-Plan Non-Development Expenditure. What worsens matters is populist policy decisions to revise DA/Pay scales of state government employees to keep pace with Central Government pay hike after the Fifth Pay Commission award. Already state resources are unable to meet existing Non-Plan Revenue Expenditure. In first three years of Ninth Plan, the expenditure on revision of DA/Pay scales by states has soared to Rs.5,996.8 crore. The States' potential deficit will grow further when Central wage settlements filter down to state public enterprises.

54. The Non-Plan development expenditure of states has been 67.5 percent of Ninth Plan projection in first three years of the Plan. Annexure-V would show that expenditure responsibilities of the State outstrip their own resources.

55. Given relatively hard budget constraints, no fiscal reforms and rising interest bills, the states may be forced to cut down spending in important areas like investment in irrigation, power and transport and in education and health. Very few states have been able to maintain their spending in these sectors.

56. The debt service payment as a percentage of Ninth Plan targets has reached high levels in States like Goa, Haryana, Karnataka, Punjab, U.P., Madhya Pradesh, Tripura, Mizoram, Sikkim, J&K, and Maharashtra – so high that even if they impose a total freeze on Non-Plan Revenue Expenditure, the BCR would remain a matter of serious concern.

57. The basic problem of States' BCR has been that the growth in revenue receipts has been substantially less than non-Plan revenue expenditure, thus leaving a large uncovered balance on current revenue. This uncovered balance has been growing to make the BCR scenario unsustainable.

58. The States have immediately to curb Non-Plan Non-Development Expenditure and prioritise Non-Plan Development Expenditure. The goal should be growth in Revenue Receipts to match growth in non-Plan Revenue Expenditure. To begin with, they should ensure that growth in Revenue is able to finance at least the extra addition to a negative BCR in successive years.

Contribution of State Level Public Enterprises (SLPEs)

59. The SLPEs included in Ninth Plan projections are mainly State Electricity Boards (SEB) and State Road Transport Corporations (SRTC). In Eighth Plan the actual realisation of SLPEs was 24.34 per cent for all states, 36.22 per cent for SCs and 18.88 per cent for NSCs. For all states, the actual Eighth Plan realisation during first three years was (-) 117.33 per cent. In Ninth Plan, as against a projected Rs.1,353.18 crore, the actual realisation has been (-) Rs.17,398.53 crore , showing how huge is the financial burden imposed by SLPEs on state finances. However, the performance of SLPEs of SCS was relatively satisfactory; against the projections of (-) Rs.2,404.48 crore, the actual realisation improved to (-) Rs.2,319.83 crore. Enterprises in NSCS saw a deterioration from the projected Rs.3,757.66 crore to (-) Rs.15,078.70 crore during 1997-2000. NSCS with low-contributing SLPEs are Andhra Pradesh, Rajasthan, Bihar, Maharashtra, Punjab and Madhya Pradesh. However, the SLPEs of Gujarat and Karnataka offered positive contribution to Plan. An analysis of the financial contribution to Plan by the SEBs and SRTCs follows.

State Electricity Boards (SEB)

60. SEBs were projected to contribute (-) Rs.1,024.02 crore to the plan financing of states during the Ninth Plan, but their actual contribution dipped alarmingly low to (-) Rs.16,810.10 crore. A very low level of ARM realization during first three years added to their huge losses and managerial inefficiency. The SEBs were to mobilize Rs.38,346 crore as ARM while the actual achievement was only Rs.2,704.78 crore i.e. about 7.05 per cent . of the projections. If this trend is maintained, the ARM realisation would be only 29 per cent during the entire period of the Plan.

61. There is a need for urgent policy initiatives: review of power tariff policy and state subsidy, revamp of SEBs including downsizing of staff, reduction 'in transmission and distribution (T&D) losses, economy in expenditure and removal of managerial and administrative inefficiency. Also, involvement of private sector in transmission and distribution of power needs to be explored.

State Road Transport Corporations (SRTCs)

62. SRTCs were projected to contribute Rs.326.41 crore for plan financing of states during the Ninth Plan against which the actual contribution has deteriorated to (-) Rs.1,902.92 crore. While ARM by SRTCs was projected at Rs.5,905.85 crore, the actuals add up to only Rs.936.56 crore. It appears unlikely that SRTCs would mobilise the balance ARM in the next two years of Plan.

63. In the case of SCS with SRTCs, the Ninth Plan target was (-) Rs.500.87 crore and the actual realization during first three years of the Plan improved to (-) Rs.163.70 crore. The SRTCs have so far realised an ARM of only Rs.0.47 crore. Therefore, the fresh ARM and buoyancy in remaining two years of the Plan should be very high to realise the ARM target of Rs.160.85 crore.

Other SLPEs

64. In addition to SEBs and SRTCs, certain other SLPEs have also contributed to Ninth Plan. The actual contribution of SLPEs to Plan has been Rs.1,314.49 crore as against Plan projections of Rs.2,050.79 crore, or a realisation of 64 per cent of target in first three years of the Ninth Plan,. Projections of SLPEs vis-à-vis actual contribution to Plan is illustrated in Table-28.

65. The dismal performance of SLPEs calls for urgent measures: total revamping including disinvestment and privatization, re-structuring, tariff revisions, downsizing of staff and reduction of administrative expenditure. Fiscal

Table – 28
Contribution of State Level Public Enterprises to Plan (SEB, SRTC and Others) (At 96-97 prices)

(Rs. Crore)

Items Realisation	Ninth Plan Projections	Realisation (1997-2000)	Percentage to Ninth Plan Projections
1. Contribution of SLPEs to Plan – All States (Total) Of which	1,353.18	(-) 17,398.53	(-) 1,285.75 (24.34)
(i) State Electricity All States	(-)1,024.02	(-)16,810.10	(-)1,641.58 (17.07)
(ARM)	38,345.85	2,704.78	7.05
(ii) State Road Transport Corporations (SRTC) (All States)	326.41	(-)1,902.92	(-)582.98 (-117.33)
(ARM)	5,905.85	936.56	15.86 (458.11)
iii) Other SLPEs (ARM)	2,050.79 0.00	1,314.49 0.00	64.10

* Figures in parentheses indicate % realisation during Eighth Plan

discipline and accountability of SLPEs needs to be improved through appropriate policies. Avoidance of populism and a strong political will also promote effectiveness and success of SLPE reforms.

2

Special Plan Grants of Tenth Finance Commission (TFC)

66. Plan Grants awarded to States by TFC comprises mainly Upgradation Grants, Grant for Special Problems and Grants for Local Bodies. In Ninth Plan these Grants were projected at Rs.9,417.96 crore, against which the actual realisation during first three years was Rs.4,600.85 crore, i.e. 48.85 per cent of projections. The realization of TFC Grants by SCS was 46.55 per cent at Rs.532.64 crore against a Plan projection of Rs.1,144.19 crore and by NSCS 49 per cent i.e. Rs.4,068.21 crore against a projection of Rs.8,273.77 crore. NSCS which could not utilise TFC grants to a satisfactory level are Goa, Karnataka, Madhya Pradesh, Maharashtra, Andhra Pradesh, Punjab, Rajasthan and West Bengal .

i) Grants for Special Problems, Upgradation Grant and Grants for Local Bodies

67. Among the various Plan Grants, the Grants for Special Problems show the highest rate of realisation (53.44 per cent). As against projections of Rs.1,393.06 crore, the actual realisation was Rs.744.42 crore. SCS could realize 37.19 per cent at Rs.156.41 crore against a projected Rs.420.54 crore and NSCS 60.5 per cent i.e. Rs.588 crore against a projection of Rs.972.52 crore.

68. States utilized Upgradation Grants to the extent of 55 per cent of Plan targets by realizing Rs.842.77 crore against a projected Rs.1,529.50 crore. SCS realized about 72 per cent and NSCS 50 per cent.

69. The lowest realisation is observed in Grants for Local Bodies, i.e. 46.4 per cent. Against the projection of Rs.6,495.40 crore, the actual realisation was only Rs.3,013.16 crore. SCS realized 30 per cent while NSCS 47 per cent. SCS projection was Rs.341.46 crore and the actual realisation Rs.102.57 crore; for NSCS, the projection was Rs.6,153.94 crore and realisation Rs.2,911.09 crore. NSCS need to provide necessary support to increase the utilisation of these grants because of the importance of local bodies under 73rd and 74th amendments to the Constitution. Table 29 shows the projections of TFC Grants in Ninth Plan and the actual realisation.

Additional Resource Mobilisation (ARM)

70. The ARM projected for Ninth Plan stood at Rs.1,14,451.07 crore which comprises Rs.29,610.98 crore from budgetary measures, Rs.38,345.85 crore from SEBs Rs.5,905.85 crore from SRTCs and Rs.40,588.39 crore from various other measures of which two-thirds would be due to BCR improvements and the balance on account of various ARM measures by SLPEs. As against these projections, the actual ARM realisation during first three years was Rs.13,487.11 crore: Rs.8,906.33 crore from budgetary measures, Rs.2,704.78 crore from SEBs, Rs.936.56 crore from SRTCs and Rs.939.44 crore from others. The overall realisation of fresh ARM by states in the three years is estimated to be about 11.78 per cent of targets. If the buoyancy of ARM measures built into the estimates under the relevant items is also taken into account, the total ARM is likely to be only about 20 per cent. States with a lower ARM realisation would have to take urgent measures for substantial ARM in the remaining two years of the Ninth Plan.

Borrowings of States:

71. As mentioned earlier, the States borrow from State Provident Funds, Loans against Small Savings, (SLR Based) Open Market Borrowings (net) , Negotiated Loans and Bonds/Debentures. An analysis of realisation of each of these items vis-à-vis the projections for Ninth Plan is given below:

State Provident Fund

72. State Provident Fund, a social security net provided by state government to its employees, is a major source of plan finance for the state. As per Ninth Plan projections, states were to mobilise Rs.37,053.87 crore, which constituted about 20 per cent of their own resources

Table - 29
Special Grants under Tenth Finance Commission (TFC)

(Rs. Crore)

Item		Ninth Plan Projections	Realisation (1997-2000)	% Realisation to Ninth Plan Projections
I.	Total TFC Plan Grants (All States) of which	9,417.96	4,600.85	48.85
i)	Special Category States	1,144.19	532.64	46.55
ii)	Non-Special Category States	8,273.77	4,068.21	49.17
II.	**Upgradation Grant** (All States) of which	**1,529.50**	**842.77**	**55.10**
i)	Special Cat. States	382.19	273.66	71.6
ii)	Non-Spl. Cat. States	1,147.31	569.11	49.6
III.	**Grants for Special Problems (All States)** Of which	**1,393.06**	**744.42**	53.44
i)	Special Cat. States	420.54	156.41	37.19
ii)	Non. Spl. Cat. States	972.52	588	60.46
IV.	**Grants for Local Bodies (All States)** Of which	**6,495.45**	**3,013.66**	**46.40**
i)	Spl. Cat. States	341.46	102.57	30.04
ii)	Non-Spl. Cat. States	6,153.94	2,911.09	47.30

and about 10 per cent of aggregate plan resources. They realised Rs,32,223.18 crore, i.e. 87 per cent of projections, mainly by impounding arrears of revised pay and DA of staff. The realisation during the corresponding Eighth Plan period was 67.66 per cent. Unless there is a reasonably long lock-in period for Provident Fund deposits of the arrears, withdrawals and releases of Provident Funds could neutralise effectiveness of the impounding.

73. Among NSCS which mobilised resources through Provident Funds, the highest realisation in terms of projected levels is observed in West Bengal, followed by Tamil Nadu, Gujarat and Punjab. The realisation level was very low for Kerala. For SCS, the comparative mobilisation by Mizoram, Manipur and Assam was much higher than projected. The realisation was the lowest for Himachal Pradesh followed by Nagaland, Arunachal Pradesh and Tripura.

74. A statement of the realisation of State Provident Funds against Ninth Plan projections is given in Table 30 separately for SCSs and N-SCs.

Table – 30
State Provident Funds (at 1996-97 prices) (Rs. Crore)

Item	Ninth Plan Projections	Realisation (1997-2000)	% Realisation to Ninth Plan Projections
1. All States (Total) of which	37,053.87	32,223.18	86.96 (67.66)
i) Special Category States	3,721.24	2,850.59	76.60 (69.32)
ii) Non-Special Cat. States	33,332.63	29,372.60	88.12 (67.52)

* Figures in parentheses indicate % realisation during Eighth Plan

Loans against Small Savings

75. Loans against small savings have been a major source of plan finance; state governments are entitled to loans from the Centre to the extent of 75 per cent of net small savings collections. According to Ninth Plan projections, loans against small savings were to contribute Rs.54,221.35 crore for plan financing, or about 29 per cent of states' own resources and about 15 per cent 'of aggregate state plan resources. During first three years of Ninth Plan, there has been a high level of realisation i.e. 99.6 per cent of the projected level mainly because of depressed conditions in the capital market, attractive tax incentives of small savings instruments and low interest rates of bank deposits. (The Eighth Plan realisation during corresponding three-year period stood at only 39.39 per cent). The highest realisation is observed for Goa, followed by Rajasthan, Bihar, Maharashtra, West Bengal , Madhya Pradesh and Karnataka. Among SCS, the realisation is high for Nagaland and Arunachal Pradesh. States of Kerala, Orissa, Tamil Nadu, Andhra Pradesh, Mizoram, Assam, Himachal Pradesh, Meghalaya and Jammu & Kashmir have had relatively low realisation. Small savings also involve a debt liability to the states and the states need to curb excessive dependence on these savings. Instead of using loans against the savings for non-plan non-development expenditure .they could be invested in projects with potential for development of infrastructure, promote employment and boost state revenues. A statement showing projection and actual realisation of loans against small savings is given in Table 31.

Table 31
Loans against Small Savings (Net)
(at 1996-97 prices)

(Rs. Crore)

Item	Ninth Plan Projection	Realisation (1997-2000)	% Realisation to Ninth Plan Projections
All States (Total) Of which	54,221.35	53,988.64	99.57 (39.39)
i) Special Category States	4,149.73	2,170.65	52.31 (59.86)
ii) Non-Special Category	50,071.62	51,817.99	103.49 (38.43)

- Figures in parentheses indicate % realisation during Eighth Plan (SLR Based) Open Market Borrowings (Net)

76. SLR –Based Open Market Borrowings make for another major source of plan financing for States. Ninth Plan projects these borrowings at Rs.35,671.76 crore i.e about 19 per cent the states' own resources and about 10 per cent of aggregate plan resources of state governments. Against these projections, the realisation during first three years was about 71 per cent ; SCS about 84 per cent and NSCS about 70 per cent. For corresponding period in Eighth Plan, the realisation was very low i.e. 55.34 per cent for all states, 59.72 per cent for SCs and 55.05 per cent for NSCs.

77. SLR Based Open Market Borrowings have exceeded Ninth Plan targets in Goa, Karnataka, Himachal Pradesh and Tripura. The realisation is also very high for Andhra Pradesh and Rajasthan. and —among SCS – for Assam, Meghalaya, Mizoram, Nagaland and Sikkim. The high level performance stems the low level of BCR, low contributions of SLPEs to Plan and low level of other states' own funds for Plan. Also, constrained for Normal Central Assistance by the Gadgil Mukherjee Formula, states with low own funds have to depend more on borrowings of this nature. Table 32 shows Ninth Plan projections for these borrowings and the actual realisation:

Table 32
SLR Based Open Marke t Borrowings (Net)
(1996-97 prices)

(Rs. Crore)

Item	Ninth Plan Projection	Realisation (1997-2000)	% Realisation to Ninth Plan Projections
All States (Total) Of which	35,671.76	25,374.54	71.13 (55.34)
i) Special Category States	2,467.24	2 ,083.95	84.46 (59.72)
ii) Non Special Category States	33,204.52	23,290.59	70.14 (55.05)

* Figures in parentheses indicate % realisation during Eighth Plan

Negotiated Loans

78. Negotiated loan for plan financing is an enabling provision by which states are entitled to negotiate project-based loans for plan schemes from development finance institutions like LIC, GIC, NABARD, REC, IDBI and others. The project- based assistance are channeled into a wide variety of sectors ranging from power and housing to transport and rural infrastructure. This source of finance has gained in importance because of its potential for generating employment, revenue, and infrastructure development. Being a project-based assistance, there is little possibility of diverting the funds for non-plan non-developmental expenditure.

79. Negotiated loans were projected to contribute Rs.36,427.91 crore for plan financing during the Ninth Plan. This constitutes about 20 per cent of states' own resources and 10 per cent of aggregate plan resources of state governments. As against these projections, states realised about 73 per cent during first three years of the Plan. (In Eighth Plan negotiated loans made up about 12 per cent of States' Own Resources and 6.3 per cent of the aggregate plan resources; actual realisation was 55 per cent of the projections during first three years of the Plan). SCS realised about 62 per cent of Ninth Plan projections and NSCS 74 per cent of it. (During the corresponding Eighth Plan period the actual realisation for SCs was 45.74 per cent and for NSCs 55.06 per cent). States exceeding projected levels of negotiated loans are West Bengal, Punjab, Andhra Pradesh, Rajasthan, Mizoram, and Himachal Pradesh. Realisation levels have remained very low for Orissa, Madhya Pradesh, Haryana, Goa, Karnataka, Meghalaya, Assam and Arunachal Pradesh.

80. Among financial institutions, states could realize 59 per cent of projected level of negotiated loans from LIC/GIC, 47 per cent from NABARD, 61 per cent from IDBI, 57 per cent from REC and 133 per cent from others. A statement indicating realisation levels of various institutions is given in Table 33:-

Bonds and Debentures

81. Project based bonds and debentures have emerged as an innovative source of resource mobilisation with high potential. As against Rs.18,700.21 crore projected under this item for the Ninth Plan, the actual realisation has been Rs.22,809.38 crore i.e. about 122 per cent of the Plan target. Some states have exceeded the projections, among them Kerala, Maharashtra, Punjab, Rajasthan and Tamil Nadu. However, Haryana, West Bengal, Goa and Uttar Pradesh have not had satisfactory performance in this regard.

Table – 33
Negotiated Loans – Ninth Plan Projections v/s Institution-wise Realisation during 1997-2000 (at 1996-97 prices)

Item	Realisation Level (In per cent) SCS	NSCS	Total
Negotiated Loans	61.9 (45.74)	74.0 (55.06)	73.2 (54,.52)
of which			
i) LIC/GIC	71.5 (21.65)	58.3 (50.62)	59.4 (49.00)
ii) NABARD	62.3 (96.86)	46.2 (31.71)	47.4 (37.06)
iii) REC	35.6 (51.31)	61.9 (48.70)	56.9 (49.02)
iv) IDBI	15.5 (57.40)	62.0 (63.89)	60.9 (63.69)
v) Others	130.8 (-)	133.3 (73.40)	133.2 (75.83)

* Figures in parentheses indicate % realisation during Eighth Plan

82. Among the borrowed funds, it is clear from the analysis above, priority should be more for Negotiated Loans and Bonds/Debentures; they cannot be diverted and they directly contribute to developing social and economic infrastructure of the state, despite a certain element of debt liability. At the same time there has to be a progressive re-orientation of non-project based borrowings (i.e. SLR-based open market borrowings, State Provident Funds and Loans against Small Savings) towards project-specific borrowings.

Central Assistance

83. As mentioned earlier, Central Assistance (CA) broadly consists of Central Assistance (Domestic) and Central Assistance for Externally Aided Projects (EAPs). The realisation of Central Assistance (Domestic) has been about 56% during the first three years of the Ninth Plan while only 26% of the projections could be realised under Central Assistance for EAPs. Projected Central Assistance (Domestic) for Ninth Plan was Rs.1,06,338.16 crore of which Rs.31,678.45 crore (i.e. about 30%) was for the SCS and the balance of 70% i.e. Rs.74,659.71 crore was for the NSCS. During the first three years of the Ninth Plan, the SCS realised about 60% of the projected level while the NSCS realised 55%. The Eighth Plan projections indicate that the realisation of Central Assistance (Domestic) was about 44.07% during the first three years of Eighth Plan and for EAPs the actual realisation was 43.74%. The projected Central Assistance (Domestic) for Eighth Plan was Rs.64259.72 crore of which Rs.25983.52 crore was for SCs (around 40%) and Rs.38276.20 crore was for NSCs (around 60% of the total (domestic) Central Assistance). During the first three years of the Eighth Plan, the SCs realised about 36% of the projected level while the NSCs realised 49%.

84. As mentioned earlier, the Area Programmes (i.e. BMS, SDS, HADP, WGDP, BADP, TSP etc.) which are scheme/project based constituted about 24% to 27% of total Central Assistance during the first three years of the Ninth Plan. The Annual Plan allocation for Area Programmes was Rs.6,968 crore in 1997-98, Rs.8,739 crore in 1998-99 and Rs.9,698 crore in 1999-2000. During 1997-98(Actuals), the utilisation of CA for Area Programmes was very unsatisfactory i.e. 57% of Annual Plan allocation. In 1998-99 (Pre-actuals) however, the utilisation of CA for Area Programmes improved to 67% of Annual Plan allocations and in 1999-2000(LE) the utilisation of Central Assistance for Area Programme improved to 99.5%. The share of Area Programme in total Central Assistance also increased considerably in 1998-99 (PA) over the previous years i.e. from 16% to 22%. However, in 1999-2000 (LE), there was an improvement in the share of Area Programmes to total Central Assistance, since it constituted 28% of the total Central Assistance. The allocation for Area Programmes in 1998-99 was 25% higher than that of the previous year. However, in 1999-2000, the allocation for Area Programmes was stepped up only by 11% over the previous year. During first three years of the Ninth Plan, the states realized 67% of the Annual Plan allocation whereas SCs realized 81% of the Annual Plan allocation and NSCS realized 62% of the AP allocations. Since Area Programmes are project based, Central Assistance for Area Programmes cannot be diverted for non-plan non-development expenditure and thus it directly contributes to the development of social and economic infrastructure of the State Governments. Hence in the next two years of the Ninth Plan, an increasing share of the budgetary resources of total Central Assistance for State and UT Plans needs to be earmarked for the Area Programmes.

85. Regarding the Central Assistance for EAPs, as against the projected level of Rs.62,436.84 crore for the Ninth Plan, the states realised only 25.9% of the projected level i.e. Rs.16,157.64 crore in the first three years of the Ninth Plan. The states which showed very low level of realisation are : Kerala, Goa, Punjab, Rajasthan, Gujarat, Tamil Nadu, Uttar Pradesh Bihar, Maharashtra, Sikkim, West Bengal, Tripura, Himachal Pradesh, Manipur, Mizoram and Meghalaya. As against the projected level of Rs.21721.25 crore for the Central Assistance for EAPs for the Eighth Plan, the states could realise only Rs.9501.93 crore i.e. 43.74% was actually realised. The SCS could realise 25.74% of the projected level while the NSCs could realise 44.25% of the same.

Conclusion

86. The foregoing analysis underlines the grim scenario of state finances marked by a very low level of States' Own Funds co-existing with high level of

borrowings. This trend can be reversed only through vigorous ARM efforts supplemented by effective expenditure management. Besides, policy initiatives are required from States and Centre for reforming SLPEs, avoidance of populism, progress in project implementation and overall improvement in administrative and managerial efficiency of state finances. Though in general the states have realised about 44 per cent of the projected level of aggregate Ninth Plan resources, the performance in several of those states on this front leaves much to be desired.

87. The state governments of Bihar, U.P, Goa, Rajasthan, Orissa, Punjab. Haryana, Madhya Pradesh, Nagaland, Arunachal Pradesh, Assam, J&K, Meghalaya and Sikkim lag far behind in realising Ninth Plan target of aggregate plan resources. Haryana, Kerala, Orissa, U.P., Arunachal Pradesh, Meghalaya, Nagaland, J&K and Assam may need to restrict their level of borrowings. Despite the debt liability, Negotiated Loans, Bonds and Debentures and Central loans for Area Programmes need to be stepped up because these are project-specific. At the same time, an increasing share of non project-specific borrowings such as SLR-based borrowings, loans against small savings and resources through State Provident Funds will have to be redirected and earmarked for projects and schemes relating to social and economic infrastructure. The diversion of non project-specific borrowed funds for non-development expenditure and, more particularly, to non-plan non-development expenditure should be progressively reduced through efficient monitoring mechanism at state level. The only alternative to improve the state income and thereby the revenue mobilizing capacity of the state is to redirect funds from non-plan non-development expenditure to income generating assets in socio-economic sectors. Above all, state finances need to be managed with the paramount objective to achieve poverty alleviation, employment generation and high and sustainable levels of economic growth and development rather than as a source of funds for financing salary and administrative expenditure of the state government.

88. To conclude, in the next two years of the Ninth Plan both the Centre and the States will have to focus attention on areas of shortfall in plan financing and adopt suitable policy reforms to ensure the realisation of Plan projections to a reasonable level. Items such as Non-Plan Revenue Expenditure (NPRE) and borrowings may have to be made consistent with Plan projections since an excessive high growth in these areas will have serious adverse impact on the finances of States, the Centre and the entire economy. Further, since financial resources constitute a key determinant of Plan effectiveness, the extent of realisation of all projections, strategies and policy goals for all sectors would be largely determined by the efficiency of financial resource management for Plan financing in the next two years by both the Central and the State Governments.

Annexure-1

GROSS BUDGETARY SUPPORT

Rs. Crore

S.No.	Ministry/Department		At current prices			
		At 1996-97 prices 1997-2002	1997-98 Actuals	1998-99 Actuals	1999-2000 RE	2000-2001 BE
1	2	3	4	5	6	7
1	**AGRICULTURE**	**14876.41**	**1736.38**	**1927.65**	**2206.00**	**2879.55**
	Agriculture & Cooperation	*9153.82*	1280.47	1337.40	1477.00	1950.00
	Agriculture Research & Ed.	*3376.95*	331.14	421.94	504.00	629.55
	Animal Husbandary & Diary	*2345.64*	124.77	168.31	225.00	300.00
2	**CHEM. & FERT**	**1214.38**	**237.49**	**226.73**	**180.00**	**237.00**
	Chemicals & PetroChemicals	*171.00*	37.08	37.93	30.00	40.00
	Fertilzers	*1043.38*	200.41	188.80	150.00	197.00
3	**CIVIL AVIATION**	**495.07**	**21.07**	**41.74**	**37.40**	**55.00**
4	**FOOD & CONSUMER AFFAIRS**	**284.12**	**50.88**	**52.08**	**68.61**	**68.00**
	Consumer Affairs	*28.37*	8.31	7.59	14.00	10.00
	Food & Civil Supplies	*216.27*	41.60	41.10	48.00	50.00
	Sugar & Edible Oils	*39.48*	0.97	3.39	6.61	8 00
5	**COAL**	**2459.59**	**275.40**	**161.05**	**545.01**	873.00
6	**COMMERCE**	**1478.14**	**290.16**	**302.09**	**312.00**	**388.82**
	Commerce	**1455.95**	288.54	300.11	310.00	385 00
	Supply	*22.19*	1.62	1.98	2.00	3 82
7	**COMMUNICATIONS**	**551.29**	**77.48**	**80.14**	**103.11**	**136.05**
	Posts	*507.25*	72.27	73.69	96.01	120.00
	Telecommunication	*44.04*	5.21	6.45	7.10	16.05
8	**ENVIRONMENT & FORESTS**	**3013.84**	**412.25**	**497.83**	**610.00**	**850.00**
9	**EXTERNAL AFFAIRS**		**60.00**	**309.42**	**400.00**	**575.00**
10	**FINANCE**	**2559.40**	**637.28**	**479.32**	**578.61**	**715.43**
	Economic Affairs	2544.08	635.33	476.71	575.92	711.45
	Expenditure	*11.11*	1 67	2.16	2.06	2.98
	Revenue	*4.21*	0.28	0 45	0.63	1.00
11	**FOOD PROCESSING INDUSTRIES**	**235.04**	**32.02**	**29.79**	40.00	**50.00**
12	**HEALTH & FAMILY WELFARE**	**20504.74**	**2571.34**	**3206.67**	**4182.00**	**4897.86**
	Health	*5118.19*	716.15	814.2	1010.00	1277.86
	Family Welfare	*15120.20*	1822.15	2342.45	3120.00	3520.00
	I S M & H	*266.35*	33.04	50.02	52.00	100.00
13	**HOME AFFAIRS**	**443.92**	**80.97**	**129.45**	**137.15**	**170.70**
14	**HUMAN RESOURCES DEV.**	**29938.56**	**4396.46**	**5400.83**	**5943.07**	**7286.29**
	El Education & Literacy	*20381.64*	3269.74	3987.49	2931.28	3728.75
	Youth Affairs & Sports	*826.09*	117.50	156.41	180.00	215.00
	Culture	*920.41*	115.58	125.09	128.25	162.25
	Women & Child Development	*7810.42*	893.64	1131.84	1249.86	1460.00
	Sec Education & Hr. Edu.				1453.68	1720.29
15	**INDUSTRY**	**6261.60**	**1182.49**	**1224.78**	**918.67**	**1379.55**
	ID & IPP	*1923.75*	433.12	537.53	322.15	470.00
	Heavy Industry	*551.00*	116.80	102.54	80.00	138.00
	SS & Agro Rural Industries	*3786.85*	632.57	584.71	516.38	771.55
	Public Enterprises				0.14	
16	**INFORMATION & BROADCASTING**	**680.05**	**82.44**	**84.52**	**204.28**	**270.00**
17	**LABOUR**	**899.12**	**76.39**	**104.88**	**89.43**	**98.00**
18	**LAW & JUSTICE**	**306.31**	**52.00**	**63.98**	**73.68**	**75.00**
19	**NON-CONVENTIONAL ENERGY**	**2122.14**	**220.44**	**278.59**	**314.50**	**439.00**
20	**PERSONNEL & PG & PENSIONS**	**64.36**	**10.64**	**13.61**	**10.20**	**19.33**

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Annexure-1 *(Contd.)*

Rs. Crore

S.No.	Ministry/Department		At current prices			
		At 1996-97 prices	1997-98	1998-99	1999-2000	2000-2001
		1997-2002	Actuals	Actuals	RE	BE
1	2	3	4	5	6	7
21	**PETROLEUM & NATURAL GAS**	**0.00**	**0.00**	**0.00**	**100.00**	**0.00**
22	**PLANNING**	732.49	**196.87**	**178.00**	**169.74**	**180.00**
	Planning	*577.12*	136.81	151.21	142.74	20.00
	Statistics	*155.37*	60.06	26.79	27.00	160.00
23	**POWER**	**14943.05**	**2670.21**	**2583.10**	**2770.00**	**2640.97**
24	**RURAL AREAS & EMPLOYMENT**	42277.80	**8465.90**	**7529.66**	**7220.00**	**6760.00**
	Rural Development	12437.97	2030.59	7529.66	7220.00	6760.00
	R E & P A	*29395.90*	6368.78			
	Wasteland Development	*443.93*	66.53			
	Land Resources	***0.00***		**261.49**	**324.00**	**900.00**
	Drinking Water Supply	***0.00***		**1675.72**	**1807.00**	**2100.00**
25	**SCIENCE & TECHNOLOGY**	3499.83	**583.88**	**556.20**	**665.60**	**832.00**
	Science & Techonology	*1497.35*	276.78	227.83	276.53	352.00
	Scientific & Industrial Research	*1327.48*	220.52	223.91	272.20	355.00
	Bio-Techonology	*675.00*	86.58	104.46	116.87	125.00
26	**STEEL & MINES**	930.46	**149.10**	**147.88**	**340.57**	**265.00**
	Mines	*844.96*	131.60	133.38	328.07	250.00
	Steel	*85.50*	17.50	14.50	12.50	15.00
27	**SURFACE TRANSPORT**	**12069.82**	**1809.91**	**2272.03**	**4625.68**	**5181.50**
28	**TEXTILES**	1414.51	**237.37**	**233.52**	**260.45**	**457.00**
29	**TOURISM**	485.75	**98.14**	**110.26**	**110.00**	**135.00**
30	**URBAN DEVELOPMENT**	4931.22	739.34	611.61	681.12	900.43
31	**URBAN Empl & Pov Alleviation**	0.00		255.80	285.00	379.50
32	**WATER RESOURCES**	2291.25	275.97	346.78	370.00	475.42
33	**SOCIAL JUSTICE & EMPOWERMENT**	6608.13	801.36	763.74	1159.32	1350.00
34	**TRIBAL AFFAIRS**	0.00		145.00	184.25	210.00
35	**ATOMIC ENERGY**	5700.00	742.10	1312.81	1363.52	1554.00
36	**ELECTRONICS**	542.37	142.80	0	0.00	0.00
37	**INFORMATION TECHNOLOGY**	300.00		123.63	170.00	365.20
38	**OCEAN DEVELOPMENT**	510.62	83.85	87.55	86.00	135.00
39	**SPACE**	6511.72	838.72	1165.85	1474.61	1700.00
40	**RAILWAYS**	11791.33	1991.83	2185.10	2540.00	3291.00
		53.57				
A	**Total GBS to Central Plan**	203982.00	32330.93	37160.88	43660.58	51275.00
	Percentage to C : Agreegate	54.54	54.73	55.57	54.99	58.20
B	**Central Assistance to States & UTs**	170018.00	26745.87	29710.00	35734.00	36824.00
	Percentage to C : Agreegate	45.46	45.27	44.43	45.01	41.80
C	**Aggreegate GBS to the Plan**	374054.54	59131.53	66926.45	79449.57	88157.20

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Annexure-II

Financing pattern of the Plan of CPSEs
(Revised Estimates)

(Rs Crores)

YEAR	Budgetary Support Equity	Budgetary Support Loan	Internal Resources	Other Resources Bonds/ Debentures	Other Resources ECB	Other Resources Others	EBR Total (5 to 7)	IEBR Total (4 to 7)	BS Total (2+3)	OUTLAY Total (8+9)
1	2	3	4	5	6	7	8	9	10	11
1985-86	NA	NA	NA	NA	NA	NA	NA	6863	6368	13231
1986-87	NA	NA	5368	1364	1144	957	3465	8833	7792	16625
1987-88	NA	NA	5700	2108	576	2272	4956	10656	7190	17846
1988-89	4469	3382	7181	2476	1056	2682	6214	13395	7851	21246
1989-90	4955	3441	9685	4494	1922	1384	7799	17484	8396	25880
1990-91	5118	2477	10721	4933	2553	2251	9737	20459	7595	28054
1991-92	4185	2735	12007	5722	1854	2919	10494	22501	6920	29421
1992-93	4173	2403	16129	6291	3746	3919	13956	30085	6576	36661
1993-94	3379	4072	18853	6237	4136	7215	17589	36441	7451	43892
1994-95	4592	3613	24153	7234	4977	4017	16229	40382	8205	48587
1995-96	3200	3218	29083	7789	4192	4700	16681	45764	6418	52182
1996-97	3878	2956	25249	8444	9176	4544	22165	47414	6834	54249
1997-98	5005	2550	27970	9491	4279	5665	19434	47404	7555	54959
1998-99	5415	2161	33514	8923	4371	3411	16705	50219	7576	[illegible]
99-2000	6918	2186	27391	7878	5444	11937	25259	52649	9103	61753
2000-01*	8303	2067	39281	7769	[illegible]	[illegible]	26777	66058	10370	76428

* figures for 2000-01 refer to the Budget Estimates

Annexure-II (Contd.)

Financing pattern of the Plan of CPSEs
(Budget Estimates)

(Rs Crores)

YEAR	Budgetary Support Equity	Loan	Internal Resources	Other Resources Bonds/ Debentures	ECB	Others	EBR Total (5 to 7)	IEBR Total (4 to 7)	BS Total (2+3)	OUTLAY Total (8+9)
1	2	3	4	5	6	7	8	9	10	11
1985-86	NA	NA	NA	NA	NA	NA	NA	6753	4994	11747
1986-87	NA	NA	NA	NA	NA	NA	NA	8683	6833	15516
1987-88	NA	NA	6139	1500	484	1576	3560	9699	6992	16691
1988-89	4188	3216	8311	2039	617	1747	4403	12714	7404	20118
1989-90	4343	3181	11299	3115	1112	1957	6183	17482	7525	25007
1990-91	4897	1947	13138	3942	1466	3439	8848	21985	6843	28829
1991-92	4540	2289	13705	5869	2001	2379	10249	23954	6829	30783
1992-93	4367	2477	15084	6058	5922	2842	14822	29906	6844	36750
1993-94	3680	2860	19062	6882	5177	9574	21633	40695	6540	47235
1994-95	3664	3537	22931	7464	7166	5303	19933	42863	7201	50064
1995-96	3389	3624	28867	8354	6260	6374	20987	49855	7013	56868
1996-97	3675	3195	30530	10235	7201	6406	23843	54373	6870	61243
1997-98	4830	2771	31154	11819	5517	7218	24555	55708	7601	63310
1998-99	6067	2608	38167	11784	5482	7290	24556	62723	8675	71398
1999-2000	5754	2883	38614	10980	5446	4481	20907	59521	8637	68158
2000-01	8303	2067	39281	7769	6222	12785	26777	66058	10370	76428

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Annexure-II (Contd.)

Percentage Variation between Budget and Revised Estimates

(Rs Crores)

YEAR	Budgetary Support *Equity*	*Loan*	Internal Resources	Other Resources *Bonds/ Debentures*	*ECB*	*Others*	EBR *Total (5 to 7)*	IEBR *Total (4 to 7)*	BS *Total (2+3)*	OUTLAY *Total (8+9)*
1	2	3	4	5	6	7	8	9	10	11
1985-86	NA	NA	NA	NA	NA	NA	NA	1.63	27.51	12.63
1986-87	NA	NA	NA	NA	NA	NA	NA	1.73	14.03	7.14
1987-88	NA	NA	92.85	140.56	118.96	144.15	139.21	9.87	2.83	6.92
1988-89	6.71	5.17	-13.60	21.41	71.32	53.51	41.14	5.35	6.04	5.61
1989-90	14.08	8.16	-14.29	44.27	72.87	-29.27	26.14	0.01	11.58	3.49
1990-91	4.52	27.25	-18.39	25.14	74.10	-34.54	10.05	-6.94	10.99	-2.69
1991-92	-7.82	19.48	-12.39	-2.51	-7.35	22.67	2.39	-6.07	1.33	-4.42
1992-93	-4.44	-2.97	6.93	3.84	-36.75	37.93	-5.84	0.60	-3.91	-0.24
1993-94	-8.18	42.38	-1.10	-9.37	-20.10	-24.63	-18.69	-10.45	13.93	-7.08
1994-95	25.33	2.15	5.33	-3.08	-30.55	-24.24	-18.58	-5.79	13.94	-2.95
1995-96	-5.57	-11.22	0.75	-6.76	-33.04	-26.26	-20.52	-8.21	-8.49	-8.24
1996-97	5.53	-7.48	-17.30	-17.50	27.43	-29.06	-7.04	-12.80	-0.52	-11.42
1997-98	3.63	-7.99	-10.22	-19.70	-22.45	-21.53	-20.85	-14.91	-0.61	-13.19
1998-99	-10.74	-17.15	-12.19	-24.28	-20.27	-53.21	-31.97	-19.93	-12.67	-19.05
1999-2000	20.23	-24.20	-29.06	-28.25	-0.03	166.36	20.81	-11.54	5.40	-9.40

Annexure-III

Allocation of Tax-Free Bonds
(1990-91 to 1998-99)

Figures in Rs. Crore

Parent Ministry/ Organisation PSU->	Atomic Energy NPC	DNES IREDA	Power @	Railways IRFC	Railways KRC	Surface Transport NHAI	URBAN DEV HUDCO	URBAN DEV NCRB	Welfare SCSTFDL	RBI NABARD	RBI NHB	Total col(1to 11)
	1	2	3	4	5	6	7	8	9	10	11	12
1990-91	0.00	25.00	593.00	1170.00	0.00	0.00	575.00	0.00	0.00	0.00	0.00	2363.00
1991-92	100.00	0.00	600.00	1500.00	150.00	0.00	300.00	0.00	0.00	0.00	0.00	2650.00
1992-93	100.00	0.00	600.00	900.00	0.00	0.00	300.00	0.00	0.00	300.00	200.00	2400.00
1993-94	100.00	0.00	600.00	550.00	400.00	0.00	300.00	0.00	0.00	0.00	0.00	1950.00
1994-95	100.00	50.00	550.00	500.00	450.00	0.00	300.00	0.00	0.00	0.00	0.00	1950.00
1995-96	100.00	30.00	550.00	500.00	370.00	0.00	300.00	0.00	50.00	0.00	0.00	1900.00
1996-97	200.00	100.00	550.00	500.00	0.00	40.00	100.00	0.00	50.00	150.00	0.00	1690.00
1997-98	200.00	100.00	550.00	400.00	100.00	40.00	100.00	85.00	0.00	100.00	200.00	1875.00
1998-99	125.00	90.00	350.00	200.00	160.00	0.00	165.00	60.00	0.00	50.00	200.00	1400.00
1999-2000	100.00	50.00	200.00	200.00	100.00	0.00	150.00	0.00	0.00	0.00	150.00	950.00

Note : The figures of Allocation for NABARD for 1992-93 also includes Rs 100 crore for SIDBI

Annexure-III

Tax Free Bonds Raised by PSUs *

Figures in Rs. Crore

Parent Ministry/ Organisation	Atomic Energy	DNES	Power	Railways	Railways	Surface Transport	URBAN DEV	URBAN DEV	Welfare	RBI	RBI	Total
PSU->	*NPC*	*IREDA*	*@*	*IRFC*	*KRC*	*NHAI*	*HUDCO*	*NCRB*	*SCSTFDL*	*NABARD*	*NHB*	*col(1to 11)*
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1990-91	0.00	25.00	550.00	1170.00	0.00	0.00	575.00	0.00	0.00	0.00	0.00	2320.00
1991-92	5.00	0.00	437.00	1500.00	111.64	0.00	300.00	0.00	0.00	0.00	0.00	2353.64
1992-93	0.00	0.00	0.00	0.00	10.50	0.00	0.00	0.00	0.00	0.00	0.00	10.50
1993-94	0.00	0.00	384.50	390.71	446.00	0.00	204.50	0.00	0.00	0.00	0.00	1425.71
1994-95	100.00	50.00	369.00	206.50	697.75	0.00	174.00	0.00	0.00	0.00	0.00	1597.25
1995-96	0.00	30.00	155.21	97.41	180.25	0.00	273.50	0.00	0.00	0.00	0.00	736.37
1996-97	58.18	90.00	444.00	401.00	251.00	0.00	100.00	0.00	0.00	150.00	0.00	1494.18
1997-98	350.02	100.00	512.50	193.50	114.00	0.00	100.00	70.00	0.00	100.00	200.00	1740.02
1998-99	125.00	90.00	375.00	257.00	160.00	0.00	165.00	60.00	0.00	0.00	200.00	1432.00
1999-2000 **(P)**	100.00	50.00	200.00	200.00	100.00	0.00	150.00	0.00	0.00	0.00	150.00	950.00

Source : Compiled from the internal documents of the Planning Commission, and information provided by the M/o Finance and other Central Ministries /PSUs.

* Inclusive of Bonds raised out of untillized allocation of the previous year(s)

@' Details of Allocation / Utillization of Bonds for PSUs under M/o Power provided separately

(P) Provisional

Annexure-IV

Mid Term Appraisal of 9th Five Year Plan – States' Financial Resources

Item			TOTAL (25 States)			
			Projections Ninth Plan	Realisation 1997-98 (Actuals) to 1999-2000 (LE)	%age Realisation	%age Realisation during First three years of 8th Plan 1992-97
A.	**STATE's OWN RESOURCES (1 to 12)**		**185,889.29**	**81,447.02**	**43.81%**	**46.64%**
1.	**Balance from Current Revenues**		**-15,389.86**	**-64,633.33**	**-419.97%**	**-39.06%**
	- Of which ARM		(29,610.98)	(8,906.33)	(30.08%)	
2.	**Contribution of Public enterprises**		**1,353.18**	**-17,398.53**	**-1285.75%**	**24.34%**
	a)	State Electricity Board	-1,024.02	-16,810.10	-1641.58%	17.07%
		- Of which ARM	(38,345.85)	(2,704.78)	(7.05%)	
	b)	State Road Transport Corporation	326.41	-1,902.92	-582.98%	-117.33%
		- Of which ARM	(5,905.85)	(936.56)	(15.86%)	
	c)	Others (Specify)	2,050.79	1,314.49	64.10%	458.11%
		- Of which ARM	(0.00)	(0.00)		
3.	**State Provident Funds**		**37,053.87**	**32,223.18**	**86.96%**	**67.66%**
4.	**Miscellaneous Capital Receipts (Net)**		**-32,560.36**	**-3,632.52**	**11.16%**	**20.20%**
5.	**Special Grants under TFC (a+b+c)**		**9,417.96**	**4,600.85**	**48.85%**	**107.37%**
	a)	Upgradation	1,529.50	842.77	55.10%	
	b)	Special Problems	1,393.06	744.42	53.44%	
	c)	Local Bodies	6,495.40	3,013.66	46.40%	
6.	**Loans against net small savings**		**54,221.35**	**53,988.64**	**99.57%**	**39.39%**
7.	**Open Market Borrowings (Net) (SLR Based)**		**35,671.76**	**25,374.54**	**71.13%**	**55.34%**
8.	**Negotiated Loans (a to f) and other Finances**		**36,427.91**	**26,648.87**	**73.16%**	**54.52%**
	a)	LIC / GIC	9,353.66	5,551.85	59.35%	49.00%
	b)	NABARD	12,281.36	5,824.66	47.43%	37.06%
	c)	REC	3,312.72	1,883.53	56.86%	49.02%
	d)	IDBI	2,637.60	1,606.13	60.89%	63.69%
	e)	Others	8,842.57	11,782.70	133.25%	75.83%
9.	**Bonds / Debentures (Non-SLR Based)**		**18,700.21**	**22,809.38**	**121.97%**	
10.	**ARM agreed at DC - CM Discussions**		**40,588.39**	**939.44**	**2.31%**	
11.	**Adjustment of Opening balance**		**404.88**	**442.89**	**109.39%**	**-750.41%**
B.	**CENTRAL ASSISTANCE (13 and 14)**		**168,775.00**	**76,187.85**	**45.14%**	**43.99%**
13	Domestic Central Assistance		106,338.16	60,030.21	56.45%	44.07%
14	Assistance for Externally Aided Projects		62,436.84	16,157.64	25.88%	43.74%
C.	**AGGREGATE PLAN RESOURCES (A+B)**		**354,664.29**	**157,634.87**	**44.45%**	**45.34%**

Annexure - V

Balance from Current Revenues (BCR) : Ninth Plan Projections and Realisation (All States)
(At 1996-97 Prices)

(Rs.crore)

	Item	Ninth Plan Projections	Realisation (1997-2000)	% Realisation to IX Plan Targets
I.	**Revenue Receipts**			
1.	Tax Revenues	643,914.40	338,340.03	52.54%
1.1	Share of Central Taxes	224,522.21	111,512.05	49.67%
1.2	State Tax Revenue at base level rates	419,392.19	226,827.98	54.08%
2.	**Non-Tax Revenue at base level rates**	**69,147.72**	**36,489.26**	**52.77%**
3.	Grants from Centre (Non-Plan)			
	a. Revenue Gap Grant	2,951.81	955.44	32.37%
	b. Grants for Natural Calamities	1,486.26	3,078.51	207.13%
	c. Grants in lieu of tax on Railway fare	1,897.37	1,034.32	54.51%
	d. Agricultural Wealth Tax	74.05	0.01	0.01%
	e. Others, if any	5,184.41	6,008.50	115.90%
	Total 3: (a to e)	**11,593.90**	**11,076.79**	**95.54%**
4.	**Transfer from funds**	**1,165.75**	**812.88**	**69.73%**
	Total - I (Revenue Receipts)	**725,821.77**	**386,718.97**	53.28%
II.	**Non-Plan Revenue Expenditure**			
1.	Non-Plan Non-development (Total a+b)	337,137.50	223,686.86	66.35%
	a) Debt Services (Total i+ii)	161,643.22	98,386.83	60.87%
	i) Interest Payment	157,272.66	96,312.91	61.24%
	ii) Appropriation for reduction or Avoidance of Debt	4,370.56	2,073.92	47.45%
	b) Other Non Development	175,494.28	125,300.03	71.40%
2.	Non-Plan development	334,952.45	225,947.70	67.46%
3.	Transfer to Funds	18,309.49	4,307.63	23.53%
4.	Total provision for Revision of DA and Pay Scales, bonus etc. not included under above items (in respect of non-plan expd) of which	74,302.83	5,996.78	8.07%
	a) Provision for Implementation of Fifth Pay Commission/State Pay Commission.			
	b) Provision for Arrears in respect of Revision of DA and pay scales, bonus etc., in 1998-99 following the implementation of the Fifth Pay Commission/State Pay Commission			
5.	Eighth Plan Maintenance Expenditure	292.82	157.96	53.94%
6.	Committed Liability	4,663.69	0.00	0.00%
	Total-II (Non-Plan Revenue Expenditure)	**769,658.78**	**460,096.94**	**59.78%**
III.	Balance from Current Revenues (I-II)	-43,837.01	-73,377.96	-167.39%
IV.	Budgetary ARM *	29,610.98	8,906.33	30.08%
		(1163.83)	(161.68)	
V.	**BCR with ARM**	**-15,389.86**	**-64,633.32**	**-419.97%**

* Figures in parenthesis indicate the ARM already included in the respective items.

Annexure - VI

Aggregate Fresh Additional Resource Mobilisation (ARM) (At 1996-97 Prices)

(Rs. Crore)

Item	Ninth Plan Projections	Realisation 1997-98 (Actuals) to 1999-2000 (LE)	%age Realisation to IX Plan Projections
Special Category States			
Total ARM *Of which*	**9,443.93**	**400.53**	**4.24%**
a) Budgetary	100.73	173.48	172.22%
b) SEB	1,227.82	78.13	6.36%
c) RTC	160.85	0.47	0.29%
d) Others	7,954.53	148.45	1.87%
Non Special Category States			
Total ARM *Of which*	**105,007.14**	**13,086.58**	**12.46%**
a) Budgetary	29,510.25	8,732.84	29.59%
b) SEB	37,118.03	2,626.66	7.08%
c) RTC	5,745.00	936.09	16.29%
d) Others	32,633.86	790.99	2.42%
All States			
Total ARM *Of which*	**114,451.07**	**13,487.11**	**11.78%**
a) Budgetary	29,610.98	8,906.33	30.08%
b) SEB	38,345.85	2,704.78	7.05%
c) RTC	5,905.85	936.56	15.86%
d) Others	40,588.39	939.44	2.31%

2

CHAPTER 3

AGRICULTURE AND ALLIED SECTOR

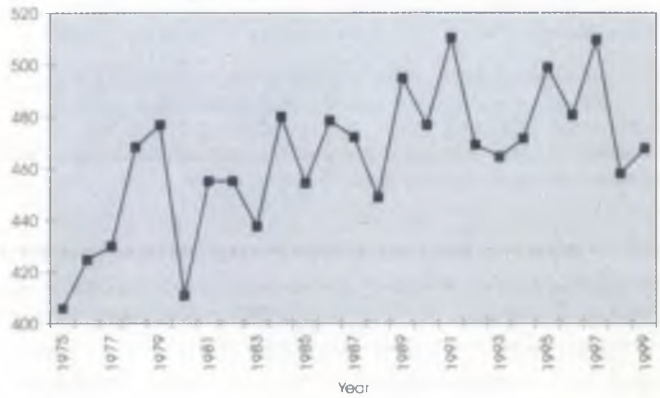
Overview

Agriculture continues to be the most crucial sector of the Indian economy. With 26.8 percent contribution to the Gross Domestic Product (GDP) at current prices and providing employment to nearly 2/3rd of the work force, agriculture is so much at the center stage in the Indian economy that any situational change in this sector, positive or negative, has a multiplier effect on the entire economy. The largest industries of the country like sugar, jute, textiles, food processing, milk, etc. are dependent on agriculture for their raw materials. Besides, the agriculture sector and rural areas are the biggest markets for low priced and middle priced consumer goods, including durable use items.

2. Foodgrains production recorded a growth rate of 2.5 percent per annum during 1949-50 to 1998-99 and reached 203.04 million tonnes (Table1). Per capita availability of foodgrains went up from 395 grams in 1951 to 484 grams per day in 1998 (see graph). During 1949-50 to 1998-99, the oilseeds production increased at the rate of 2.85 percent per annum and went up from 5.23 million tonnes to 25.21 million tonnes. Cotton production increased from 2.75 million bales to 12.18 million bales yielding a growth rate of 2.56 percent per annum and for sugarcane, growth rate of 3.08 percent per annum was achieved resulting in increase in production from 50.17 million tonnes to 295.73 million tonnes.

3. The livestock sector also registered notable growth. Milk production increased from 17 million tonnes in 1950-51 to 74.70 million tonnes in 1998-99. Egg production increased from 1832 million nos. to 30150 million nos. The production of fish has increased by 4.2 percent per annum since 1950-51 having gone up from 7.52 lakh tonnes to 52.60 lakh tonnes in 1998-99.

Per capita daily availability of cereals and pulses in grams



Growth Trends during Eighties and Nineties

4. During the nineties, (1989-90 to 1998-99) growth rate of production for both foodgrains and non-foodgrain crops taken together has declined to 2.35 percent per annum from 3.72 percent per annum achieved during the

Table - 1
Production & Growth Rates of some major commodities

Commodity	Production (Million Tonnes)				Growth Rates(% per annum)					
	1949-50	1979-80	1989-90	1998-99	1979-80 to 1989-90			1989-90 to 1998-99		
					Area	Prod.	Yield	Area	Prod.	Yield
Rice	23.54	42.33	73.57	85.99	0.45	4.29	3.82	0.49	1.70	1.21
Wheat	6.39	31.83	49.85	70.78	0.57	4.24	3.65	1.64	3.64	1.96
Coarse Cereals	16.83	26.97	34.76	31.46	(-)1.19	0.74	1.84	(-)2.36	(-)0.48	1.63
Pulses	8.16	8.57	12.86	14.81	0.15	2.78	2.63	(-)0.22	0.75	0.65
Foodgrains	54.92	109.70	171.04	203.04	(-)0.11	3.54	3.33	(-)0.18	1.80	1.42
Oilseeds	5.23	8.74	16.92	25.21	2.45	5.75	2.93	1.27	3.06	1.93
Cotton	2.75	7.65	11.42	12.18	(-)1.32	2.19	3.56	2.71	2.22	(-)0.47
Sugarcane	50.17	128.83	225.57	295.73	1.89	3.73	1.81	1.81	2.90	1.08
Milk	17.00*	30.40	51.40	74.70	–	5.39	–	–	4.78	–
Egg (Million nos.)	1832*	9523	20204	30150	–	7.81	–	–	5.13	–
Fish	0.75*	2.34	3.68	5.26	–	4.78	–	–	4.70	–

Relates to 1950-51, Source: - **Ministry of Agriculture** eighties (1979-80 to 1989-90). The decline in the rate of growth for foodgrains was sharper from 3.54 to 1.80 per cent per annum. Even for the milk and eggs sector, which had led the growth pattern in the 1980's, there was decline in the 90's, although not as severe as for foodgrains.

Table-2. Growth rates of foodgrains production in different States during Nineties (1990-98)

>2.5%	1.5-2.5%	<1.5%
Mizoram	Meghalaya	Goa
Rajasthan	Madhya Pradesh	Assam
Manipur	Uttar Pradesh	J & K
Nagaland	Punjab	Tripura
Haryana		Tamil Nadu
Karnataka		A. P.
Bihar		H.P.
West Bengal		Maharashtra
Gujrat		Arunachal Pr
		Sikkim
		Orissa
		Kerala

Based on production estimates

5. Among the states, the Punjab, Haryana, Uttar Pradesh, Madhya Pradesh, Bihar and Orissa registered a decline in growth rate of foodgrains production during nineties. However, Gujarat, Rajasthan, Karnataka, and Goa have performed better. In the case of Tamil Nadu (0.78
3 percent), and Maharasthra (0.05 percent) the production growth remained very low whereas in Kerala and Orissa, it was negative. Slower growth in production in the poorer states of Uttar Pradesh, Madhya Pradesh, Orissa and Assam is a matter of concern, especially because these are ground water rich states, hence with a great deal of untapped potential.

How West Bengal did it

The rate of growth in crop productivity in West Bengal during 1977-95 was nearly 5%, due to land reforms and spurt in private shallow tube well irrigation. Security of tenure has altered the credit relations that had earlier trapped the peasants in debt cycles. With increasing access to institutional credit, farmer was able to put more land under HYV cultivation. He also invested in shallow tube wells, thanks to easy availability of groundwater. With assured irrigation, the cropping pattern during *rabi* also changed in favour of high value non-food crops, such as potato, oilseeds, etc.

6. Production growth rate of rice and wheat have declined because of lower growth in productivity, though there has been some expansion in area. The plateauing of yield of rice and wheat in high productivity areas under rice-wheat system and low yield levels in Central, Eastern and North Eastern parts of the country have affected the growth of production. Coarse cereals production recorded a negative growth rate mainly due to diversion of about 8 million ha to other more remunerative crops. Besides the decline in area, coarse cereals productivity has remained nearly stagnant. In case of pulses the growth in production has declined substantially because of sharp decline in the growth of productivity from 2.63 percent per annum to 0.65 percent per annum and also a negative growth (-0.22 percent) in area (Table-1).

7. Introduction of cross breeding programme and implementation of Operation Flood Scheme boosted milk production during eighties. During nineties, however, there was decline in the growth of production (Table-1). The rise in egg production has been mainly due to spurt in setting up modern poultry farms in the southern India, though the growth rate declined during nineties. However, the annual growth rate of fish production during nineties remained more or less, at the level achieved during eighties mainly because of increased growth in inland fish production.

Why the slow down in the 90's?

8. The policy approach to agriculture, particularly in the 1990s, has been more to secure increased production through subsidies in inputs such as power, water and fertilizer, rather than through building new capital assets in irrigation and power. This has reduced the pace and pattern of technological change in agriculture and effected TFP (total factor productivity) adversely. The equity, efficiency, and sustainability of the current approach thus becomes debatable. The subsidies also do not improve income distribution and the demand for labour. The boost in output from subsidy-stimulated use of fertilizers, pesticides and water may partly be coming at the expense of deterioration in the aquifers and soil – an environmentally unsustainable approach that may partly explain the rising costs and slowing growth and productivity in agriculture, notably in Punjab and Haryana. Moreover, the deteriorating state finances have meant that subsidies have, in effect :-

a) crowded-out public agricultural investment in irrigation and roads and expenditure on technological upgrading,
b) limited maintenance of canals and roads, and
c) contributed to the low quality of rural power.

These problems are particularly severe in the poorer states. Although private investment in agriculture has grown, this is hardly a substitute for lower public investment and deteriorating quality of public services, in some cases involving macroeconomic inefficiencies (such as private investment in diesel generating sets). At the same time, power capacity is underutilized because of poor distribution and maintenance, and excessive use of capital on the farms encouraged by subsidies (see para 55). The fiscal problems of the central and state governments suggest that the subsidies cannot continue to grow, and the stock of rural productive assets and technological basis for growth will be limited by the past pattern of spending, unless low cost options are pursued, which have a higher capital-output ratio.

9. In addition, agriculture has seen much less reform than other sectors. Agriculture is still constrained by central and state regulations that limit movement and intra-state trade, public procurement, and canalization of trade. For example, simply allowing greater private trade in products would help reduce price fluctuations and improve the productivity of labour and land-use and stimulate agricultural exports. Similarly, removal of small-scale reservation would help the growth of domestic agro-industry, which in some cases is now facing increased competition from larger size offshore producers as a result of lower tariff. According to a recent World Bank study cotton and textile policies effectively tax domestic cotton producers and oilseed producers by 15% and 30% respectively.

10. To sum up, though there are region-specific causes to explain the decline in the growth rate in the nineties, but some of the possible reasons seem to be:

- Low public investment in irrigation and poor maintenance of rural infrastructure, specially canals and roads.
- Decline in investments in rural electrification, and in its availability. This has vastly affected production in eastern India, where huge groundwater potential remains untapped.
- Rising level of subsidies for power, water, fertilisers and food are eating into public sector investments in agriculture, besides inducing inefficient use of scarce resources, such as water. This further aggravates environmental problems leading to loss of soil fertility and groundwater, which intern reduces returns on capital. Farmers then demand further subsidies to maintain the same level of production.
- Inadequate credit support.
- Continuing imbalanced use of N, P, K fertilisers, (which was 8.5:3.1:1 in 1998-99 as against the desirable norm of 4:2:1) and increasing deficiency of micro nutrients.
- Stringent market controls on foodgrains that suppress their profitability. In the face of pressure from WTO, it is feared that if domestic market reforms are not carried out soon, it would create a situation that an opportunity to capture world markets would be converted into a threat to the future growth of Indian agriculture. The classic case is that of sugar where imports were opened at zero duty when controls on domestic markets remained.
- Growth in total factor productivity (TFP), which is a measure of technical change, seems to be decelerating, suggesting a decline in the force of technology.
- Demand constraints: slow growth of urban economy, restriction on exports, lack of land reforms, failure of poverty alleviation schemes, slow growth in rural wages.
- Controls on agro-processing industry

NINTH FIVE YEAR PLAN

Strategy

11. The Ninth Five Year Plan envisages a growth of 4.5 percent per annum in agriculture sector. For achieving the objective of 4.5 percent growth in agriculture sector, a Regionally Differentiated Strategy, based on Agro-Climatic Regional Planning, has been proposed to be implemented. Keeping in view the significance of agriculture sector in achieving a broad based growth of income levels and employment, especially in rural areas, a target of doubling food production and making India hunger-free in 10 years has been envisaged. Besides adequate availability of basic food products, the concept of food security has been broadened to include accessibility and availability of basic nutritional requirements. The strategy for food security aims at increasing overall employment and incomes by raising farm productivity, providing gainful supplementary employment through poverty alleviation schemes and distribution of foodgrains through public distribution system at subsidised rates to those living below the poverty line.

12. The objective of giving priority to the issue of access of the poor to foodgrains is important for two reasons. Firstly, despite the fact that the growth of foodgrains production in the period 1989-99 was lower than the increase in population during the same period, procurement has been going up, which is suggestive of a decline in people's consumption or the purchasing power of the poor. This may have happened because of the structural imbalances (rising capital intensity, lack of land reforms, failure of poverty alleviation programmes, growing disparity between towns and villages, etc.) created in the economy, as well as due to production problems in less endowed regions, which has led to a dangerous situation of huge surplus in FCI godowns coupled with widespread hunger. Therefore it is as important to correct these policy imbalances as to increase food production. Secondly, if consumption of the poor does not increase there would be serious demand constraints on agriculture, making the growth target of 4.5 percent per annum unachievable.

Thrust Areas

13. Keeping in view the above strategy, thrust areas for the Ninth Plan include;

- ***Conservation of land, water and biological resources.***
- ***Development of Rainfed agriculture.***
- ***Development of minor irrigation.***
- ***Timely and adequate availabiiity of inputs.***
- ***Increasing flow of credit***
- ***Enhancing Public sector investment***
- ***Effective transfer of technology***
- ***Support for marketing infrastructure & Export promotion and Enhanced support for research.***

Financial Allocations

14. Department-wise allocations for the Ninth Plan and expenditure incurred during first three years of the Plan are given in Table-3. Besides, Ministry of Commerce has been allocated Rs. 705.03 crore for the developmental activities of plantation crops (tea, coffee, rubber & cashew) and promotion of export of spices.

3

Table-3. Allocation of fund to Agriculture Sector for the Ninth Plan. (in Rs. Crores)

Period		DAC	DAH&D	DARE
Eighth Plan	Allocation	7000.00	1300.00*	1300.00
	Expenditure	5494.46	1125.00*	1257.71
Ninth Plan-	Allocation	9153.82	2345.64	3376.95
1997-98	Allocation	1416.00	319.15	331.17
	Expenditure	1196.85	201.07	323.30
1998-99	Allocation	1941.00	381.90	531.17
	Expenditure	1342.66	166.07	427.73
1999-2000	Allocation	1941.00	381.90	573.50
	Expenditure	1440.63	207.29	503.78

* Excluding fisheries sector- Rs.400 crore allocation and Rs.373.74 crore expenditure.

Source: Ministry of Agriculture/ Planning Commission

Developmental Programmes

15. Besides the ongoing programmes, some new initiatives have been taken for achieving the Ninth Plan objectives which include;

- introduction of crop insurance scheme "Rashtrya Krishi Bima Yojana (RKBY)",
- establishment of Watershed Development Fund (WDF),
- launching of Technology Mission on Cotton (TMC),
- launching of Kisan Credit Cards,
- introduction of new Credit Linked Capital Subsidy Scheme for the development of cold storage and onion storage facilities
- implementation of World Bank aided National Agriculture Technology Project (NATP).
- formulation of On-farm Water Management Scheme for Eastern India.
- formulation of Project for Technology Mission on Horticulture Development for North Eastern States.

16. The RKVY has already been launched from Rabi 1999. The WDF have been established with the support of Rs.100 crore from NABARD and the DAC is to provide their share of Rs.100 crore during 2000-01. The TMC have also been approved. The launching of Kissan Credit Cards have met with a good measure of success and needs to be replicated / expanded all over the country. The implementation of NATP has also commenced for the research and human resource development. However, the credit linked capital subsidy schemes is yet to become operational and the schemes on On-farm Water Management for Eastern India and Technology Mission on Horticulture for North Eastern States are yet to be finalized.

Performance Review

Foodgrains

17. As against the Eighth Plan (1996-97) achievement of 199.44 million tonnes, food grains production target for the terminal year of the Ninth Plan (2001-02) has been fixed at 234 million tonnes. Production targets and achievements for foodgrains and other commercial crops for first three years of the Ninth Plan are given in Table-4. To achieve the targets, production will have to increased by 14 percent in the remaining two years, which seems to be an impossibility.

Table-4-Targets and Achievements of Foodgrains and Commercial Crops Production

(million tonnes)

Name of the crop	9th Plan Target (2001-2002)	1997-98 Tar.	1997-98 Achi.	1998-99 Tar.	1998-99 Achi.	1999-2000 Target	1999-2000 Likely Ach.
Rice	99.00	83.00	82.54	86.00	86.00	86.00	88.25
Wheat	83.00	70.00	66.35	74.00	70.78	74.00	74.25
Coarse Cereals	35.50	34.00	30.40	34.50	31.46	34.50	30.35
Pulses	16.50	15.00	12.97	15.50	14.80	15.50	13.06
Total Foodgrain	**234.00**	**202.00**	**192.26**	**210.00**	**203.04**	**210.00**	**205.91**
Oilseeds	30.00	25.50	21.32	27.00	25.21	28.00	21.18
Sugarcane	336.00	280.00	279.54	300.00	295.73	305.00	309.31
Cotton *	15.70	14.80	10.85	14.80	12.18	15.00	11.99

* Million bales

Source: Ministry of Agriculture / Planning Commission.

18. Pulses have been brought under Technology Mission since early nineties. However, there has not been any appreciable improvement either in area expansion or in productivity levels. Lack of HYV seeds and cultivation on marginal lands, mostly in unirrigated areas, have mainly been responsible for low production of pulses. There appears no possibility of achieving a quantum jump in production unless a major breakthrough is made in development of high potential input-responsive and insect-pest and disease resistant varieties.

Oilseeds

19. Oilseeds production suffered a set back during 1997-98 but during 1998-99, record production of 25.21 million tonnes was achieved (Table-1). Oilseeds were brought under "Technology Mission on Oilseeds (TMO)" in 1986 and efforts made through the Mission have helped in area expansion and increasing productivity. Increased production of oilseeds helped to reduce the imports of edible oils drastically by early nineties. However, reduction in import duty to 16.5 percent on edible oils in 1998 from the earlier peak level of 60 percent has resulted in heavy imports of more than 4 million tonnes of edible oils in 1998-99. Recent hike in import duty to 27.5 percent may have some favourable impact on production of oilseeds. As oilseeds and edible oils belong to the sensitive consumer basket, striking a balance between the interest of consumers and producers remains a delicate exercise.

Cotton

20. During 1997-98, cotton production declined substantially to 10.85 million bales from 14.23 million bales in 1996-97. However, during 1998-99, it increased to 12.18 million bales. Lack of pest resistant high yielding varieties is the main obstacle in raising productivity/production of cotton. Emphasis is required to be given on enhancing the Seed Replacement Rate (SRR). To achieve this, the concept of Seed Village Programme (SVP) exclusively for cotton seed production in collaboration with Cotton Corporation of India (CCI) and other Institutions with buy back arrangement and distribution of certified seeds should be considered. The cotton crop alone consumes about 1/2 of total pesticides used in agriculture in the country. Development of Integrated Pest Management (IPM) technology and its wider adoption should be a thrust area for minimizing the use of pesticides, lowering the cost of production and minimizing environmental hazard. Cotton trade is besieged with a plethora of restrictions which continue to hamper healthy/competitive growth in its trade and in turn adversely affects the efforts for raising production and productivity. Therefore, all restrictions on movement, stocking, credit by financial institutions, monopoly buying, processing and exports have to be removed to allow the farmers to take advantage of free market. Besides, in view of removal of Quantitative Restrictions under WTO, suitable tariff protection will have to be provided to Indian farmers. With the setting up of Cotton Technology Mission, the production may look up during the remaining years of the Plan.

Sugarcane

21. The Ninth Plan target of sugarcane production is 336 million tonnes. During 1998-99, production has increased to 295.73 million tonnes. The productivity levels of sugarcane in Northern States like Bihar, Madhya Pradesh, Haryana, Punjab, Assam and Uttar Pradesh are lower as compared to all-India average yield (72.58 tonnes/ha). Disease resistant short duration improved varieties need to be propagated in this region. Sugar industry, though delicensed, still continues with lot of regulations and controls, including the levy on sugar, release of free sale sugar quotas, distribution and pricing of molasses, etc. All these controls should be done away with as they have been hampering the process of modernization, diversification and waste and by-product utilization by the industry. The era of chronic shortages of sugar being over and the emergence of free trade regime under WTO make it more imperative than ever before that the industry is allowed to develop its own strength in terms of efficient production having competitive costs, quality and value addition, if it has to survive.

22. Sugar yield has gone up only by 1.3 percent in the last three decades, as area increase has brought 60 percent increase in sugar production. Not only are Indian yields 1/3rd to ½ of those achieved in similar agro climatic conditions (Australia, Brazil, South Africa), sugarcane quality is also lower, with sucrose content of 11 percent, compared to an international standard of 13 percent. About 22 percent of sugar is lost in processing compared to an international benchmark of 17 percent and the best practice of 10.5 percent in Australia. These inefficiencies are due to government policies that encourage wasteful use of land and water, and regulatory obstacles in pricing, distribution, marketing and manufacturing.

23. India produces 20 percent more sugar than Brazil, but has four times as many mills on account of historical bias against setting up of large size sugar mills. However, this bias has since been rectified. Biases against the healthy growth of *Khandsari* units also need to be removed. They will help in stabilizing the sugarcane - sugar equilibrium and generate employment in rural areas with relatively less capital. Major cause of instability in sugar production from year to year is the fixation of state Advised Prices which has no legal base and is fixed arbitrarily by the states, sometimes on whimsical grounds. This bad practice also needs to be stopped.

Excessive use of water in sugarcane
Sugarcane, occupying around 3% total cropped area in Maharashtra, gets about 60% of irrigation water. Subsidy on water discourages farmers to shift to drip irrigation, which will also prevent water logging and salinity.

Horticulture

24. India is the second largest fruit and vegetable producing country in the world after China. Horticulture sector suffers from various technological and infrastructural constraints, preponderance of old and senile trees, poor management, acute shortage of seeds and planting material of improved quality and lack of post harvest handling, sorting, grading, packaging, storage and transportation etc. Besides, inadequate processing infrastructure and poor marketing network are other constraints for growth and expansion of horticulture. The North-East region, which has tremendous potential for horticulture development, has severe constraints of connectivity. Organically produced, chemical free horticulture products are labour intensive. There is scope for organic farming, but potential remains under-utilized.

Table-5. Targets and production of horticulture products
(in million tonnes)

3

Product	1996-97	9th Plan Target	1997-98	1998-99
Fruits	38.03		40.05	42.00
Vegetables	75.07	179.00	72.83	80.00
Sub-total	**113.10***		**112.88**	**122.00**
Spices	2.50	3.36	NA	3.00
Cashew	0.43	0.70	0.36	0.35

***141.00Million Tonnes indicated in the 9th Plan Document**
Source: - Ministry of Agriculture.

25. The Ninth Plan strategy for growth and expansion of horticulture sector is to improve productivity, reduce post-harvest losses and improve marketability and promote export. A number of schemes for development of fruits, vegetables, floriculture, root and tuber crops, spices, medicinal and aromatic plants etc. are under implementation. There is vast scope for horticulture produce like mangoes of North, litchi and *makhana* of Bihar, fibreless ginger and mandarins of North-East and large cardamom of Sikkim etc. Considering the tremendous potential for development of horticulture in North-East region a mission mode approach has been envisaged to provide boost to the production of fruits and vegetables, medicinal and aromatic plants, floriculture, etc.

26. For the Ninth Plan, combined production target of fruits and vegetables is 179 million tonnes. Production during 1997-98 was 112.88 million tonnes, while in 1998-99 it was 122 million tonnes. Achieving Ninth Plan production targets for fruits and vegetables and cashew (Table-5) seems to be difficult. The financial outlays and expenditure during Ninth Plan for development of horticulture and plantation crops are given in Table-6.

Table-6-Financial allocation & Expenditure during Ninth Plan
(Rs. In crores)

Sub-sector	9th Plan outlay	1997-98 (Exp.)	1998-99 (Exp.)	1999-2000 (Anti.Exp.)
Horticulture (incl. Spices & cashew)	1200.00	182.42	221.01	130.68
Tea	130.00	27.52	15.05	17.27
Coffee	125.00	23.00	25.50	27.00
Rubber	373.19	44.46	63.20	81.72

* IEBR Source: Ministry of Commerce.

Plantations

27. The Ninth Plan (2001-02) production targets and achievements during the first two years of the Plan of tea, coffee and rubber are given in Table-7. To meet the requirements of rapidly rising domestic consumption and export of tea, coffee and rubber, the focus is on enhancing productivity and bringing more area under cultivation especially in North-East region and focus on block/group plantation. To overcome the situation of glut in production of natural rubber on account of recession in industrial sector concerted efforts would be required to promote the use of rubber wood in furniture and rubberisation of roads.

TABLE –7- Targets And Production(In lakh tonnes)

Product	1996-97	9thPlan target	1997-98	1998-99
Tea (in million kgs)	775	1000	838	850
Coffee	2.05	3.00	2.28	2.65
Rubber	5.49	7.17	5.84	6.05

Development of Degraded Land and Rainfed Areas

28. It is estimated that out of the total geographical area of about 328.73 million ha, 107.4 million ha are degraded land (DAC 1994). Out of this about 67.6 million ha are subjected to wind and water erosion. Water logged area is estimated to be about 3.20 million ha and 2.38 million ha are affected due to shifting cultivation in hilly regions of the country. Indiscriminate use of water in high productivity rice-wheat cropping system areas has resulted in depletion and up-surging ground water tables, water logging and salinity. Out of 142.82 million ha of net shown area, 89.82 million ha (63percent) is rainfed, where crop production suffers from low yields and year to year fluctuations. For the development of rainfed areas and degraded lands, Watershed Development and Soil and Water Conservation Programmes have been taken up by

different Departments at the Centre and also by the State Governments. Besides, several externally aided projects are also under implementation. A Watershed Development Fund (WDF) has been created by NABARD with central assistance to cover 100 priority districts in a period of three years. It is projected that during the Ninth Plan about 16 million ha degraded /rainfed area will be treated/developed under the various Watershed Development Projects.

29. It is estimated that upto the end of Eighth Plan about 16.5 million ha rainfed /degraded land has been treated/developed. However, these achievements do not get reflected in Net Sown Area, which has almost remained stagnant at around 142 million ha. This indicates that either the treated lands were already under cultivation or an equal area is getting degraded or diverted for non-agriculture purposes. The possibility of bogus reporting can also not be ruled out. This requires deeper investigation and analysis.

30. Several evaluation studies conducted on various projects implemented under NWDPRA, FPR and RVP indicate beneficial impacts such as increase in cropping intensity, change in cropping pattern, increase in crop productivity and increase in underground recharge as a result of conservation measures, reduction in soil and run-off losses with lesser siltation effect and reduction in sedimentation at watershed level. These projects have also generated employment and increased family incomes through diversified farming system such as livestock development, dryland horticulture and household production activities.

Impact Evaluation Studies

The impact evaluation studies conducted by 10 Agro-Economic Research Centres on NWDPRA during the terminal year of the 8th Plan indicated,

- increase in cropping intensity and change in existing cropping pattern.
- Increase in underground water recharge as a result of conservation measures.
- Reduction in soil and water run off losses with lesser siltation effect and
- Increase in family income through diversified farming and household production activities.

31. However, there is other side of the picture too. A survey of 70 villages of Maharashtra and A.P., covering several watershed programmes, revealed that increase in agricultural production did not last for more than two years. Structures were abandoned because of lack of maintenance and there was no mechanism for looking after common lands. Projects have failed to generate sustainability because of failure of Government agencies to involve the people. For watershed projects to be sustainable, community managed systems are needed and they can succeed only with farmers contribution and their commitment of time and resources. This has been amply demonstrated in watershed programmes implemented by some voluntary organizations, in 25 villages of Pune. Equitable distribution of water amongst the families has also been one of the main factors in the success of Sukho - Majari (Haryana) and Relegan Sidhi (Maharashtra) Projects. The adoption of common guidelines prepared for implementation of six major watershed development programmes of Ministry of Agriculture and Ministry of Rural Development, which also envisage greater participation of people and creation of corpus fund for the maintenance of assets is likely to ensure active participation of beneficiaries and take care of the management of common property resources even after the project has been withdrawn.

32. About 63 per cent of the Net Sown Area of 142.82 million ha is still dependant on rainfall. In Eastern India, only 1/5th of ground water resource is being utilized. Stimulating ground water development is crucial to kickstart the Green Revolution in this region and also address the problem of extensive water logging. Studies have revealed that pump subsidy schemes operated by the State Governments have fared poorly due to lengthy, irksome and complex procedures and heavy transaction costs which leave little real subsidy for the farmers. For example, in West Bengal, the pump subsidy scheme has been co-opted by the State's minor irrigation administration and panchayat bodies and the process of accessing the scheme is so lengthy and cumbersome that small farmers without political support do not hope to benefit from it. Similarly, in Orissa a 50 percent subsidy is provided on the cost of diesel as well as electrified tubewells, but the process of accessing the subsidy is both cumbersome and full of corruption. The entire process of subsidy approval and supply of equipment, especially for the manual treadle pump, is controlled by a government Corporation, but farmers complained that the cost estimates made by the Corporation were more than twice they would incur if they went direct to the market. The result is that there is effectively very little real subsidy to claim.

33. However , Uttar Pradesh transformed the diesel pump subsidy scheme by assigning the diesel pump dealer the role of central coordinating mechanism for the scheme. The absolute monopoly power itself is diffused through the competitive dealer dynamism resulting in a win-win situation for all. This experiment has many lessons for stimulating Eastern India's ground water economy. Essentially, East Indian States need to reform their pump subsidy scheme on similar lines to ameliorate the pump capital scarcity, which lies at the heart of the problem. It is also equally important to promote cost

effective improved manual irrigation technologies for the sub-marginal farmers. Expansion of irrigation facilities through the development of minor irrigation would be more effective and economical as it ensures all time availability of water at low costs. Besides, the gestation period for the minor irrigation is just 1-2 years compared to 4-5 years for medium irrigation and 7-10 years for major irrigation projects. Capital required to create one hectare potential through major and medium mode is Rs.1,00,000 while through minor it is about Rs.20,000. Top priority needs to be accorded to massive development of minor irrigation in Eastern India to achieve quick increase in productivity and production in the region known for low productivity.

Agricultural Inputs

Seeds

34. Although the availability of certified/quality seeds has increased from 90.76 lakh quintals in 1996-97 to 104.38 lakh quintals in 1998-99, the Seed Replacement Rate (SRR) has still remained much below the desired level and varies widely from crop to crop and state to state. Against the desired level of 20 percent SRR for self-pollinated crops, for paddy it is only about 8.8 percent and for wheat 9.2 percent. In other crops, especially pulses and oilseeds, where Seed Multiplication Ratio (SMR) is low, replacement rate is much below the desired level. The target fixed for the terminal year of Ninth Plan (2001-02) is 109.66 lakh quintals.

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35. New Seed Development Policy (NSDP) adopted in 1988 has liberalized import of seeds and germplasm. Further, in 1991, 100 percent foreign ownership for seed sector units was also allowed. As a result, the number of private firms conducting R&D in the seed sector is on the increase. Private sector has contributed immensely in the development of hybrids. In some States like Andhra Pradesh and Karnataka, private bred hybrids cover sizeable area, despite higher prices compared to the public hybrids. The public sector seed producing agencies have added responsibility to produce high volume low value seeds to fulfill the National objective as private sector agencies generally concentrate on low volume high value seeds. There is need for setting up a National Seed Grid and Seed Bank by amalgamating, National Seed Corporation (NSC) and States Farms Corporation of India (SFCI), involving State Government farms, establishing seed villages and undertaking production of seeds upto foundation seed stage and facilitate development of certified / quality seeds production in private sector.

36. In pursuance of agreement on Trade Related Intellectual Property Rights (TRIPs), a bill to enact legislation to adopt *sui generis* system for granting plant variety protection has been introduced. The proposed legislation is expected to provide an effective system of protection to plant breeders' right, which will also facilitate growth of seed industry and safeguard farmers' and researchers' rights. Emergence of bio-technology as a means of evolving new varieties of seeds and the associated bio-safety concerns necessitate a careful review of policy framework for the seed-sector.

Fertilizers

37. The rate of growth of fertilizer application has considerably slowed down in the 1990s, as compared to the previous decade. However, it is an encouraging development that during 1996-97 to 1998-99, while nitrogen(N) consumption has increased only by 10.7 percent, phosphorus (P) consumption has increased by 39.1 percent and that of potash (K) by 29.2 percent. This has slightly improved the NP&K use ratio (table-8). Fertilizer consumption per hectare has also increased from 77 kg/ha in 1996-97 to about 90 kg/ha in 1998-99.

Table-8 Fertilizer Consumption (NP& K)

Year	'000' tonnes	NP&K Use Ratio
1980-81	5516	5.9 : 1.9 : 1.0
1990-91	12546	6.0 : 2.4 : 1.0
1996-97	14308	10.0 : 2.9 : 1.0
1997-98	16188	7.9 : 2.9 : 1.0
1998-99	16798	8.5 : 3.1 : 1.0

Source : Ministry of Agriculture.

38. There are, however, wide variations in fertilizer use in different regions, depending on irrigation facilities, adoption of crop production technologies and economic viability. In Punjab, Tamil Nadu, Haryana, Andhra Pradesh, which have high level of adoption of crop production technology, fertilizers consumption is comparatively high (142-179 kg/ha). In the North-Eastern States, where irrigation facilities are inadequate and agriculture is highly risky because of its proneness to floods and water stagnation, fertilizer consumption is very low. Besides, the marketing network is poor in the region. In states like Madhya Pradesh, Rajasthan and Himachal Pradesh also the fertilizers consumption has remained low because of larger dependence on monsoon and risk due to proneness to droughts.

39. Besides low per unit area consumption and imbalances in the NP&K use, deficiency of micro nutrients like zinc, iron, sulphur, etc. is increasing, especially in areas where intensive cultivation and multiple cropping are adopted. Over the last few decades, the carbon content in soil has also gone down, which is affecting soil health and productivity. In addition to increased use of organic manures and biofertilizers, it is necessary to promote need

based use of fertilizers on the basis of soil tests by adopting Integrated Nutrient Management (INM) approach. The use of organic manures needs to be promoted by recycling urban and rural waste in a scientific manner. Some success stories like Idar Composting, the Chakriya Vikash Pranali and the Bio-dynamic farming etc. need to be evaluated and replicated.

40. So far, 519 soil testing laboratories including 105 mobile laboratories have been set up in the country. It is proposed to establish 70 new soil testing laboratories and strengthen 200 existing laboratories for NPK, fertilizer and biofertilizer testing during Ninth Plan. It would, however, be desirable to establish composite facilities for testing soil, water, biofertilizers, pesticides, biopesticides to meet the needs of farmers on payment basis. These testing laboratories could also be encouraged in the private sector so as to have at least one such laboratory in each block.

Plant Protection

41. To minimize the losses/damage caused to various crops by pests and diseases, the thrust is on the adoption of Integrated Pest Management (IPM) approach with emphasis on bio-controls. Besides, being effective, the IPM approach poses no environmental health hazard and is economical in terms of cost as compared to chemical control. As a result of promotion of IPM concept, consumption of pesticides has declined. (Table-9). The programme can, however, achieve greater success if forecast about likely outbreak of pests and diseases is made regularly for the benefits of farmers and adequate availability of bio-control agents and other environment friendly devices is assured.

Table-9- Consumption of Pesticides (000' tonnes)

1990-91	75.03
1996-97	56.11
1997-98	52.24
1998-99	49.16

Source : Ministry of Agriculture.

42. Toxic residues of chemicals used in agriculture are affecting the environment, creating health problems and affecting adversely the export of agriculture commodities. Besides creating awareness and minimizing the use of chemicals, chemical residue testing facilities have to be strengthened and made available. Plant Quarantine and Fumigation Centres have been set up at international airports, seaports, and land frontiers to check entry of exotic pests and diseases. In the wake of liberalization of trade, it has become necessary to strengthen the quarantine facilities for testing and detection of pests and diseases in grains and plants and also for genetically modified materials, which may affect the bio-diversity if it gets introduced.

IPM in Cotton: A Success Story of Ashta (Maharashtra)

The IPM module for cotton crop developed by the NCIPM, which had been earlier tested on farmers' field, was validated on 200 hectares involving 124 cotton growers in village Ashta of Nanded district in Maharashtra. It comprised planting a row of maize with cowpea as interplants all around the field to enhance population of friendly insects (predators and parasites), planting of *Setaria* in between 9-10 cotton rows to attract insect predatory birds, seed treatment with Imidacloprid at 7 g a.i/kg of cotton-seed, and release of parasitoids *Trichogramma chilonis* at 1,50,000 at egg-laying of *Helicoverpa*, and application of HaNPV at 250 LE/ha and 2-3 applications of home made NSKE (neem-seed, kernel extract) on the basis of ETL.

The combined package of integrated crop production and IPM resulted in satisfactory control of different cotton pests to all the farmers in this village. This has reduced the use of chemical pesticides and the farmers could harvest an average yield of 1,000 kg/ha seed cotton during 1998 season. This was possible because of effective transmission of technology. The project was taken up jointly with the Marathwada Agricultural University, Parbhani.

Agricultural Implements and Machinery

43. Assistance is provided to farmers for popularising improved farm implements for various field operations. Training programmes for machine operators, farmers and officers of State Governments are organised at Farm Machinery Training and Testing Institutes in MP, Haryana, Andhra Pradesh and Assam. Another training and testing institute would be set up in Tamil Nadu to strengthen training and testing facilities in the region. Studies by the Central Institute of Agricultural Engineering (CIAE) Bhopal have revealed that there has been substantial increase in productivity in Punjab and Haryana due to mechanization of farm operations. Changing profile of livestock sector also highlights the need for mechanization of dairy and milk processing operations. There is likely to be a shortage of animal power, which needs to be bridged by mechanization. There is urgent need for preparing a list of tools, implements and machinery used in agricultural operations throughout the world and modify these to suit India's needs and conditions. There is potential market for tools, implements and machinery developed in India for small farmers in the developing countries. Setting up of a "National Institute of Agriculture Engineering and

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Appropriate Technology" to take up these tasks should be considered by the Department of Agriculture and Cooperation. Research in animal drawn tools, implements and carriages has been lacking and needs to be stepped up.

Agricultural Extension

44. The main thrust of the Ministry has been on achieving the set target of production by relying on the effectiveness of extension services. The main components of Agriculture extension system presently are (i) agriculture extension service with the State Governments, (ii) extension, education system of ICAR and SAUs and (iii) extension programmes of input industry in public and private sectors and NGOs. It has been noticed that in high technology adoption areas like Punjab and Haryana, farmer to farmer spread of technology is much faster. Thus, extension network has to take into consideration variations in degree of sophistication and attitude of farmers and other administrative and institutional structures of the region. The traditional Village Level Worker (VLW) based extension system will still be important in tribal and very backward areas, or in such places where irrigation is being introduced for the first time. Even in backward areas, where the potential of achieving higher production through extension exists, experience shows that VLWs and the extension staff are hardly devoting any time for this purpose and have not been found upto the mark. The reasons could be large area of operation, too much of office/file work, involvement in non-agricultural works and even non-residence in the area of work. Of late, the administrative environment, in which VLWs have functioned, has been undergoing change for worse.

45. The VLWs have responded to this environment in three ways. Firstly, they started falsifying and distorting reports. They soon discovered that they were encouraged to inflate the figures because each officer, be the BDO or the Collector, was being evaluated by his superior on the basis of these figures. Secondly, they started neglecting targets which they found were of a low priority. Thus, even if the Fisheries had a good potential for development in a village, the VLWs paid no attention to this programme because it was not considered to be important by their officers. Thirdly, they started using resources under their own control to stimulate the farmers' participation in unpopular programmes. Besides, the philosophy of extension is hardly consistent with the rigidity of superior-subordinate relations so characteristic of Indian administration as a result of which extension services have not been fully effective.

46. The original assumption behind the importance given to extension services that the Indian farmer is tradition bound, conservative and needs constant goading so as to effect a change in his behaviour needs to be challenged now. Although peasant societies till the nineteenth century all over the world have been cautious and somewhat hostile to outside interference, yet a number of studies on the responses of Indian farmer have shown that he is, on the whole, innovative, price conscious and receptive to modern ideas. If any generalization regarding peasant behaviour is to be made, it should be on the side of rationality and not otherwise.

47. In many schemes of the Ministry, there is an element of Transfer of Technology (TOT), which consists of crop demonstrations, farmer training, information support, trainers' training, etc. States currently employ over one lakh extension functionaries. In these schemes of about Rs.1000 crores annually, the share of TOT comes to about 15 to 20%. This does not provide for much flexibility to the states, and because of rigidity of the schemes, funds are fragmented and cannot be effectively utilized. As a result of lack of coordination between departments, absence of region-specific orientation, lack of role clarity for extension staff and inadequate investment in infrastructure for the development of agriculture and allied sectors, the overall growth rate in agriculture has slowed down.

48. However, the present Village Level worker (VLW) and Community Development Block based manual extension system, which has become outmoded, has got to be replaced with a more vibrant system using modern modes like print and electronic media. Research, education and extension agencies should interact with the farmers to know their needs and problems and come out with demand driven solutions. Printing and publishing of material on various crop production oriented activities and crop production technologies need to be taken up regularly for the benefit of the farmers. Task of listing success stories in extension, education and transfer of technology in public, private and NGO sectors and propagating their adoption at field level needs to be taken up. The Danish model of extension through Folks' Schools, where workers educate farmers by making use of school and other public buildings during evenings and holidays, is worth studying and emulating. In today's administrative environment it is neither possible for a government servant to live in the villages nor is it realistic to expect him to provide knowledge to the farmers. If any service is needed at the village level, it must be entirely controlled by the user groups themselves, or transmitted to them through modern IT systems. The role of non-government sector should also increase and an innovative approach in the field of TV broadcast including specific channel with an interactive mode will be useful. With far reaching changes in the communication technology and breakthrough in space technology, remote sensing, satellite broadcasting and the media spread revolution, extension workers will have

to be totally re-oriented and re-trained to adapt themselves to these developments and make full use of emerging opportunities. In future, extension services have to be responsive to changing agricultural scenario resulting from economic liberalization. Research and extension would need to focus on environmentally sustainable diversification and intensification of agriculture, location specific technologies tailored to suit local needs and greater efficiency in use of inputs. Besides, risk prone areas, such as dryland rainfed farming, would require much greater attention from extension workers.

Agricultural Credit and Co-operation

49. Disbursement of agricul-tural credit in the terminal year of the Eighth Plan and during the first three years of the Ninth Plan is given in Table-10. According to RBI report on Trends & Progress in Banking (1998-99), the relative share of agriculture credit in net bank credit stood at 12.8 percent in March, 1997 and 11.7 percent in March, 1998 as well as in March, 1999. As against the target of 40 percent for priority sector lending by banks, the sub target for agriculture has been fixed at 18 percent. The declining share of agriculture in the net bank credit against 18 percent target under priority lending is a matter of concern. More credit needs to flow to agriculture for providing timely and adequate credit under simplified procedures to farmers for increasing agriculture production and productivity.

Table 10 Flow Of Agricultural Credit (Rs. in crore)

Year	Short Term		Long term		Total
	Amount	Percent	Amount	Percent	
1996-97	16998	64.4	9413	35.6	26411
1997-98	20640	64.59	11316	35.41	31956
1998-99	23633	64.05	13264	35.95	36897
1999-2000	27239	65.38	14526	34.70	41765

50. A major bottleneck in the smooth flow of credit is the worsening recovery position of the cooperative credit institutions, which has gone down from an average of 90 percent to demand in 1995-96 to 80 percent to demand in 1998-99 (provisional). Persistence of chronic over-dues has caused poor re-cycling of funds from the borrowers to the financing agencies. The broad analysis of sectoral flows indicates that credit flows for minor irrigation and fishery sub-sectors have declined since 1996-97. There is potential for augmenting credit flow to agriculture through micro irrigation system in the form of sprinklers and drip irrigation networks in the irrigated areas especially in the low rainfall zones, hi-tech projects in floriculture, horticulture, mushrooms, dairy, poultry and cold storages. A Kisan Credit Card Scheme, aimed at providing adequate and timely support from the banking system to the farmers for the purchase of inputs in a flexible and cost effective manner, has been launched.

51. The need to suitably amend the Multi-State Cooperative Societies Act, 1984 to inject professionalism and autonomy in the functioning of these societies and free them from government control has long been felt. Choudhary Brahma Prakash Committee set up by the Planning Commission (1991) made recommendations for a Model Act, which were further examined by Ramniwas Mirdha Committee (1996). Amendment to Multi-State Cooperative Law by the Centre needs to be taken up urgently. A Model Cooperative Act was circulated to State Governments suggesting appropriate changes in their respective cooperative laws. So far only Andhra Pradesh, Bihar, Orissa, Kerala, Madhya Pradesh and J&K have amended State Cooperative Acts to make the functioning of cooperatives autonomous and transparent. All the states need to enact a Model Cooperative Law. In this context, it may be worthwhile to consider preferential assistance for development of cooperatives to compliant States.

Rising capital intensity in agriculture

52. The much debated size-productivity relationship has so far looked at productivity from the viewpoint of land. Another scarce resource is capital, and it is equally important to keep in mind which class of farmers use capital more efficiently. Small farmers have better access to labour, as they use their own family labour, whereas large farmers have better access to capital and have to hire labour from the market. These differences result in small farmers using more labour to production than large farmers, and large farmers substituting machines and capital for labour. Thus a small farmer may get an extra unit of output by using home produced mulch and organic manure and the large farmer may depend on chemical fertilizer bought from the markets. In fact, capital intensity per unit land is increasing for all category of farmers, but at a faster pace in green revolution areas and for large farmers. Thus, the weight of fertilizers, pesticides and diesel, which accounted for a mere 14.9 per cent of the total inputs in 1970-71 in the country, increased to 55.1 per cent in 1994-95. For a large farmer in commercialized regions, it could be as high as 70 per cent. But the proportion of output sold has increased at a much slower rate than the proportion of industrial inputs or of monetised inputs. The implication of this is a resource squeeze in agriculture. Whereas the need for resources to purchase these inputs has been increasing faster, the marketable surplus has been increasing at a slower rate to absorb this, as growth in industrial employment has become very sluggish. It is not surprising that the repayment of loans is such a problem in Indian agriculture and has emerged as a major issue in farmers movements. Pressed by the increasing costs, big farmers demand higher output prices, thus setting the cycle of inflation. This is a serious

problem, which has escaped the attention of both policy planners and academics. They both tend to view subsidies as a political problem. However, if 70% people continue to live in villages and dependent on home production, the cost of homegrown inputs to purchased inputs cannot be very different from 70:30, unless one considers exports as a major option in agriculture. A better option would be to concentrate on eastern region and rainfed areas in respect of public investments, where returns to both capital and labour are high. The need is also better factor productivity in agriculture or of a new technology, which would be more labour intensive and would cut cash costs. The present high capital use is also sustained because of free power and water and other subsidies (unpaid loans, cheap fertilizers etc). One cannot simultaneously talk of reduction in subsidies and at the same time increase input use, especially in areas where they have reached a point of saturation. Investments are higher than warranted on tractors, fertilizer use, and tubewells; while others are under capitalized. Small holdings do not need as much capital in substitution of labour. Numerous farmers committed suicides in Andhra Pradesh, Maharashtra, Karnataka and also in some parts of Punjab because of indebtedness owing to inappropriately large quantum of capital.

Agrarian distress in Bidar: Market forces, the state and suicides

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Farmers' suicides in Bidar are symptomatic of the larger and more pervasive ecological, economic and social crises in the region. The promotion of commercial agriculture based on hybrid seeds, fertilizers and pesticides in a semi-arid region results in loss of land-race seeds as local crops are displaced. There is loss of soil fertility and the crop becomes more susceptible to pests and diseases. Then, institutional credit is available only to large farmers forcing the small farmers to borrow at a high rate of interest. In times of outbreak of pest or diseases such a borrowing increases beyond their payment capacity. Some farmers had to pay for high-risk agriculture through taking their own lives.

Why is credit not available to small farmers through the official channels? Firstly, Bank credit to agriculture has been declining over the years. Between 1987 to 1992 credit to agriculture from the Banks as a percentage of total credit fell from 19.1 to 11.7%. Secondly, many farmers are defaulters and are thus not entitled to further credit. A NABARD report (1997-98) for Bidar shows that recovery of cooperative credit was 24% and for commercial banks between 27 to 30%. Low recovery rates render most farmers as credit-unworthy. High-risk technology and subordination of farmers to market forces without any safety net has high social costs resulting in suicides.

A R Vasavi :Economic and Political Weekly, Aug 7, 1999

Crop Insurance

53. Introduction of "National Agricultural Insurance Scheme" (Rashtriya Krishi Bima Yojana) from the Rabi season of 1999-2000 by replacing earlier Comprehensive Crop Insurance Scheme (CCIS) is a new experiment introduced in the Ninth Plan. India is the third country in the world and first ever amongst developing countries to have such a scheme. Under the scheme, coverage has been enlarged to loanee and non-loanee farmers and to all foodgrain crops (cereals and pulses), oilseeds and horticulture/commercial crops, in respect of which past yield data are available for adequate number of years. The premium rates vary from 1.5 percent to 3.5 percent of the sum insured for foodgrain crops. Small and Marginal farmers will be entitled to a subsidy of 50 percent of the charges to be shared equally between Central Government and State Government. However, the premium subsidy is to be phased out over a period of five years. Out of Ninth Plan provision of Rs.730 crore, the expenditure in the last two years under CCIS had been Rs. 428.32 crore.

Investment in Agriculture

54. Public sector investment has played a crucial role in the development of infrastructure like irrigation, electricity, agricultural research, roads, markets and communications. However, the share of Gross Capital Formation in Agriculture (GCFA) in the total Gross Domestic Capital Formation (GDCF) has declined sharply to 9.4 per cent in 1996-97 from 19.1 per cent in 1979-80 (at 1980-81 prices). It has further come down to 5.5 per cent in 1998-99 (at 1993 prices) from 6.3 per cent in 1996-97 (Table-11) and 6.8 per cent in 1993-94. A more marked decline in capital formation has been in public sector which has come down from 15.3 per cent in 1980-81 to 4.9 per cent in 1996-97 at 1980-81 prices. Even at 1993-94 prices, the percentage of capital formation in public sector has come down from 6.5 per cent in 1993-94 to 4.9 per cent in 1998-99.

55. The share of public investment in agriculture has also declined to 23.6 percent in 1998-99 from 33 percent in 1993-94, whereas the share of private investment has risen from 67 percent to 76.4 percent during the same period (Table-11). The decline in public investment is mainly due to diversion of resources in the form of subsidies for fertilizers, rural electricity, irrigation, credit and other agricultural inputs rather than on creation of assets.. Declining trend in public sector agricultural investment needs to be reversed by augmenting agricultural credit and also by increasing allocation to all the major States for agricultural growth. There is good potential for mobilizing private sector investment particularly for augmenting storage capacity. But, this is contingent upon removal of

Table 11: Gross Capital Formation in Agriculture

	Gross Domestic Capital Formation			Gross Capital Formation in Agriculture			Percentage		
Year	Total (Unadjusted)	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total as % of Col. 2	Public as % of Col. 3	Private as % of Col. 4
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
At 1980-81 prices									
1970-71	16550	6984	9566	2758	789	1969	16.7	11.3	20.6
1971-72	17941	7650	10291	2924	851	2073	16.3	11.1	20.1
1972-73	17636	9053	8583	3180	1049	2131	18.0	11.6	24.8
1973-74	20007	8969	11038	3208	993	2215	16.0	11.1	20.1
1974-75	20729	8757	11972	2975	919	2056	14.4	10.5	17.2
1975-76	22908	11030	11878	3388	1041	2347	14.8	9.4	19.8
1976-77	22498	12326	10172	4258	1378	2880	18.9	11.2	28.3
1977-78	22415	10445	11970	4073	1534	2539	18.2	14.7	21.2
1978-79	28144	12512	15625	5246	1697	3549	18.6	13.6	22.7
1979-80	27334	13029	14305	5215	1772	3443	19.1	13.6	24.1
1980-81	25794	11767	14027	4636	1796	2840	18.0	15.3	20.2
1981-82	32437	15009	17428	4503	1781	2722	13.9	11.9	15.6
1982-83	32496	16261	16235	4590	1742	2848	14.1	10.7	17.5
1983-84	31920	15846	16074	4101	1711	2390	12.8	10 8	14.9
1984-85	33187	17718	15469	4549	1674	2875	13.7	9.4	18.6
1985-86	38654	18504	20150	4325	1520	2805	11.2	8.2	13.9
1986-87	38405	19911	18494	4011	1425	2586	10.4	7.2	14.0
1987-88	37679	17734	19945	4414	1458	2956	11.7	8 2	14.8
1988-89	44761	19296	25465	4346	1362	2984	9.7	7.1	11.7
1989-90	44263	20641	23622	4353	1156	3197	9.8	5.6	13.5
1990-91	49886	21592	28294	4594	1154	3440	9.2	5.3	12.2
1991-92	46718	20047	26671	4729	1002	3727	10.1	5.0	14.0
1992-93	52131	20583	31548	5372	1061	4311	10.3	5.2	13.7
1993-94	51330	21546	29784	5031	1153	3878	9.8	5.4	13.0
1994-95	71422	24945	46477	6256	1316	4940	8.8	5.3	10.6
1995-96	76820	22937	53883	6961	1268	5693	9.1	5.5	10.6
1996-97	74216	22992	51224	6999	1132	5867	9.4	4.9	11.5
At 1993-94 prices									
1993-94	198412	68853	129559	13523	4467	9056	6.8	6.5	7.0
1994-95	242113	81498	160615	15021	4971	10050	6.2	6.1	6.3
1995-96	269219	76755	192464	15876	4928	10948	5.9	6.4	5.7
1996-97	263883	72956	190927	16610	4689	11921	6.3	6.4	6.2
1997-98	298568	70743	227825	16344	4240	12104	5.5	5.6	8.9
1998-99@	297518	78640	218878	16457	3876	12581	5.5	4.9	5.7

Source: Central Statistics Organisation , @ - Quick Estimates.

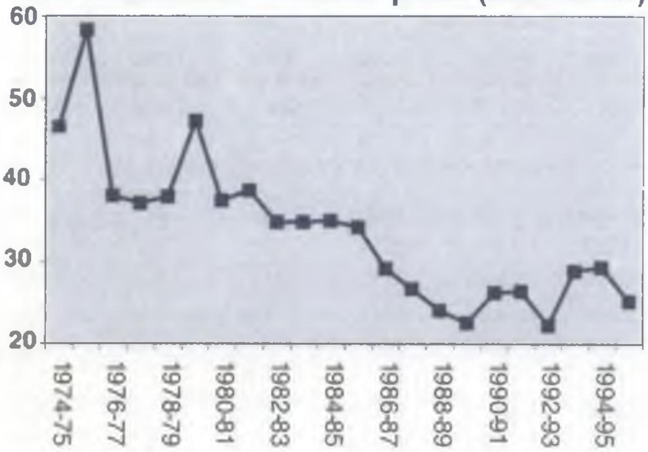
restrictions on trading, storage and movement as are in force in many states.

Agriculture Marketing

(I) Terms Of Trade:

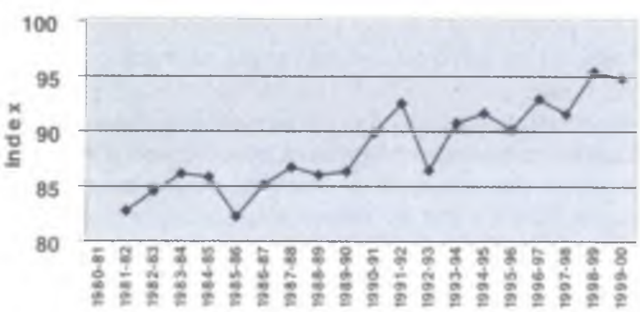
56. The indices of terms of trade (base TE 1970-71) between agriculture and non-agricultural sectors showed an improvement in favour of agriculture during the period 1980-81 to 1990-91 as the index of prices received increased at the rate of 8.2 percent per annum while that of prices paid increased at 7.2 percent per annum. During this period the index of terms of trade improved from 82.9 to 90.0. Moreover, the index of prices paid by the Agriculture Sector for intermediate consumption (farm inputs) increased at the rate of 4.7 percent per annum indicating that the profitability of crop production increased

Public Capital investment in agriculture during 1974-75 to 1995-96 at 1980-81 prices (in billion Rs)



even faster. During 1990-91 to 1994-95, the terms of trade improved further in favour of agriculture and the index increased to 91.7. However, the prices paid during this period by the farmers for agricultural inputs increased at the higher rate of 14 percent per annum, thus showing a fall in profitability in crop production, although overall terms of trade improved. During 1994-95 to 1997-98, the terms of trade appear to have moved somewhat against agriculture with the index prices paid growing at higher rate (6.2%) as compared to the index prices received (5.9%). During this period, the index of terms of trade moved down from 91.7 to 88.5. As per the new series (revised base of TE 1990-91) which has much larger coverage of items both for prices paid and prices received for the farm sector, the overall terms of trade have improved somewhat more than that reflected in the old series because while the index of prices received is similar in the two series, that of prices paid shows a slower increase in new series. If we have a look at the historical movement of relative prices, ever since 1960-61 the terms of trade for Agriculture has been hovering between 82% to 94%. This implies that agriculture sector has been loosing at the rate of about 12% p.a. and thus, large resources have got transferred from the farm sector to non- farm sector through the subtlety of price mechanism.

Index of terms of trade between agricultural and non-agricultural sectors (triennium ending 1971-72 =100)



The obvious consequence is a continuously widening gap between per capita income of farmers and other professionals, which used to be around 1:2 upto 1960-61 by now has become 1:6.

(II) Market Distortions:

57. Farmers will produce more when there are sufficient incentives for them to do so. The experiment of Rayot Bazar of Andhra Pradesh and similar markets in Tamil Nadu where farmers directly sell their produce to consumers should be encouraged by setting up markets on the peripheries of all big cities at the trunk route connections in all States of India. In addition, we need to change several laws regarding the disposal of crop output, which are based on the mindset of the era of food shortages. The situation has changed now, but the effect of these laws, which have remained almost unchanged is that today, we procure more than we should, and then its disposal requires heavy subsidy to the consumers. If market distortions on food and other crops are eased, both farmers and consumers would benefit, and at the same time the burden of input and output subsidy would also be reduced. We have discussed this in detail in the Chapter on PDS.

Storage and Post-harvest Infrastructure

58. By the end of eighth Plan, the storage capacity in the public sector aggregated to 7.69 million tonnes of which 2.14 million tonnes was with Food Corporation of India (FCI), 1.08 million tonnes with State Warehousing Corporations (SWCs) and 0.72 million tonnes with Central Warehousing Corporation (CWC) and rest with other government agencies. FCI proposed to add storage capacity of 4.55 lakh tones during Ninth Plan, out of which 0.71 lakh tonnes is to be created in remote, hilly and other inaccessible areas. CWC had proposed an addition of 8.20 lakh tonnes of storage capacity. FCI has since added storage capacity of 1.54 lakh tonnes, while CWC created additional capacity of 3.18 lakh tonnes. SWCs added 2.65 lakh tonnes of storage capacity.

59. To bring in additional investment for strengthening storage, handling and transportation infrastructure, there is need to involve private sector. Present restrictions on movement and storage under the Essential Commodities Act and other regulations of State Governments have hampered the entry of private sector. For the expansion of storage facilities, it would be necessary to set up a chain of licensed godowns involving private investment in rural areas and credit facilities on the basis of receipts against stocks through banking sector. The ambit of future trading for agriculture commodities needs to be widened and the existing limitations such as those applicable for

future trading in cotton and other commodities could be dispensed with. A National Policy on Handling, Storage and Transportation of Food is under consideration which will focus on greater involvement of private sector in strengthening storage and handling infrastructure.

60. The Cold Storage capacity, which in 1980 was 39.65 lakh tonnes, had almost doubled by 1990 at 76.77 lakh tonnes. During nineties, however, the pace of capacity creation slowed down and it was 103.53 lakh tonnes in December, 1998. Various measures such as licensing, rent control and requisitioning of cold storage space in some States have constrained capacity expansion in the past. Most of the States, except Bihar and West Bengal, have now done away with these regulations. The State Governments of Bihar and West Bengal should rescind the rent control orders on cold storage for promotion and expansion of the capacity in these states. Considering agro-climatic diversity and production pattern of horticulture throughout the country, the present cold storage capacity is inadequate. The post-harvest losses of horticulture produce have been very high (37%) as the post-harvest technologies and infrastructure have not kept pace with production technology. A Credit Linked Capital Subsidy Scheme has been approved in 1999-2000, which aims at creation of additional 12 lakh tonnes of cold storage capacity and rehabilitation/modernization of 8 lakh tonnes of cold storage capacity particularly in U.P., Bihar and Orissa. It is also planned to create 4.5 lakh tonnes of onion storage capacity. The Scheme involves an investment of Rs.652 crore, of which Rs.175 crores is the subsidy component for entrepreneurs. A large number of cold storages are lying closed because of power and other problems. These need to be addressed so that the already created capacity is fully utilized.

Agriculture Exports

61. At the end of Eighth Plan (1996-97), share of agricultural exports in total exports was 20.4 percent. It declined to 18.5 per cent in 1998-99 (Table-12). Under the Exim Policy, agricultural exports continue to be subjected to selective restrictions (Table-13). The export policy towards agricultural products is significantly influenced by considerations of domestic demand-supply balance. However, undue delay in release of quantitative ceilings for various agricultural products is certainly not conducive for sustained presence of India in world market for agricultural products. Similarly, untimely release of the ceiling does not help to enhance the unit value realization. The World Trade Organization commitments negotiated under the Agreement on Agriculture in GATT 1994, require developed countries to open up their markets faster than developing countries for agricultural exports by undertaking reductions in export subsidies, production subsidies and tariffs. However, the pace of implementation of these commitments has been very tardy and protracted negotiations have not yielded positive results in terms of market access for India and other developing countries. Moreover, developed countries have imposed non-tariff barriers which inhibit exports from India. This has resulted in poor demand for products like groundnut, oil meals, cashew, fresh fruits and vegetables etc.

62. The world trade in medicinal aromatic plants is currently valued at US$60 billion and India accounts for a negligible share valued at about US$100 million only, whereas China accounts for about 40 percent of world trade. This area needs to be fully exploited. The potential for export of organically produced natural agriculture products is yet to be fully realized. On the supply side, infrastructure support in areas such as inland transport and port facilities is far from satisfactory. As a result, a large volume of international trade is not being handled efficiently leading to trade disadvantages and loss of exports.

Table-12. Value Of Exports (in US$ millions)

Year	Value of Agricultural Exports	Value of Country's Total Exports	% Share of Agriculture Exports
1990-91	3521	18143	19.4
1996-97	6828	33470	20.4
1997-98	6375	33980	18.8
1998-99	6219	33659	18.5

Source: Economic Survey 1999-2000.

Table 13. Export restrictions on Agriculture Products

Product	Type of restrictions
Wheat	Quantitative Ceilings
Pulses	Licence (except in consumer packs upto 5 kg allowed freely)
Paddy	License
Onion	Canalysed through NAFED and/or State Government agencies. Often time frame prescribed for export and also realization of minimum export price (MEP)
Coarse Cereals	Quantitative ceiling/registration cum allocation certificate by APEDA
Sugar	Quantitative ceilings and registration with APEDA
Raw cotton	Quantitative ceilings, registration, Canalyzation and often subject to realization of minimum export price (MEP)
Niger seeds	Canalised through NAFED and TRIFED
Beef	Prohibited

Source: Ministry of Commerce.

63. In an increasingly globalised market arising out of trade liberalisation, *inter-alia,* through WTO Agreements

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impact on Indian agriculture needs to be analyzed in the context of both exports from India and imports into India. Apart from the agreement on Agriculture, another measure taken as part of India's commitments in WTO is the removal of Quantitative Restrictions, maintained for balance of payment purposes, including an agricultural products.

64. However, there is sufficient flexibility for India to protect its domestic producers as tariff bindings undertaken in the Uruguay round range between 100% to 300% as against much lower applied rates. Certain low tariff bindings undertaken before Uruguay Round have also been renegotiated upwards. In the wake of Quantitative Restriction Removal and in order to provide a level playing field to domestic producers, the recent Exim Policy has stipulated that all imported goods shall be also subject to domestic laws, rules, orders, regulations, technical specifications as well as environmental and safety norms applicable to domestically produced goods (Para 4.12 of Exim Policy). However, an appropriate and suitably strengthened mechanism for enforcing the same needs to be put in place urgently.

Nature of Interventions by the Department of Agriculture & Cooperation

65. Introduction of High Yielding Varieties during mid-sixties and launching of crop-specific programmes during Seventh and Eighth Five Year Plans resulted in increase in production of foodgrains and achieving of self-sufficiency in foodgrains. However, the impact of these initiatives remained mainly confined to North and North Western regions of the country. There was limited impact of these programmes in many high potential areas, particularly in Eastern India. Second, in the initial phase there was thrust on development of infrastructure, but subsequently it petered out in favour of some populist subsidy oriented programmes. Third, some of the programmes implemented by more than one Department lacked direction and common guidelines. Each line department has its own hierarchy, with little interaction with each other. Their services are supply driven with no effective feedback or mechanism for farmers to articulate their demands. As such, their impact was much below expectations. Foruth, the emphasis for too long remained confined to foodgrains production. Horticulture, dairy, fishery etc. and marketing and post-harvest infrastructure were not given due attention. In many schemes of the Ministry there is an element of Transfer of Technology (TOT), which consists of crop demonstrations, farmer training, information support, trainers' training, etc. States currently employ over one lakh extension functionaries. In these schemes of about Rs.1000 crores annually the share of TOT comes to about 15 to 20%. This does not provide for much flexibility to the states, and because of rigidity of the schemes, funds are fragmented and cannot be effectively utilized. As a result of lack of coordination between departments, absence of region-specific orientation, lack of role clarity for extension staff and inadequate investment in infrastructure for the development of agriculture and allied sectors, the overall growth rate in agriculture has slowed down.

Animal Husbandry, Dairying & Fisheries

Animal Husbandry & Dairying

66. The livestock sector helps in providing essential proteins for human diet, besides providing self-employment opportunities to the rural people. Its contribution to the total agricultural output is 28 per cent. The Ninth Plan lays emphasis on improving the productivity of livestock through upgradation of the genetic potential of the livestock, developing adequate animal health care including control of diseases and creation of disease free zones, production of quality feed and fodder, revamping extension services, modernization of abattoirs, strengthening of dairy cooperative activities and rehabilitation of sick dairy cooperatives.

67. A Centrally Sponsored Scheme of Assistance to State Poultry/Duck Farms to encourage backyard poultry among small and marginal farmers has been taken up on pilot project basis. Another scheme on Cattle Insurance has been formulated with subsidized premium rate for the non-scheme animals of poor farmers. Two new schemes viz. 'New Primary Dairy Cooperatives' to establish 15000 new dairy cooperatives societies in Operation Flood districts and 'Assistance to Cooperatives' aimed at reorganizing of economically weak dairy milk unions/ federations have also been formulated.

68. The Ninth Plan target for milk and egg production and achievements during the first two years of the Plan are given in Table-14. With concerted efforts in improving genetic stock through crossbreeding, effective control of diseases and implementation of Operation Flood Programme, milk production has increased substantially. Similarly, poultry sub-sector has shown steady progress over the years.

Table-14 Physical Progress During First Two Years Of The Ninth Plan

Period	Milk (million tonnes)		Eggs (billion nos.)	
	Target	Ach.	Target	Ach.
Eighth Plan*	70.80	69.10	30.00	27.50
Ninth Plan (target)*	96.49	–	35.00	–
1997-98	71.00	70.80	29.30	28.57
1998-99	74.80	74.70	30.12	30.14

*Terminal Year of Eighth Plan (1996-97)

69. Eradication of rinderpest (a dreadful disease) has been a significant achievement. Attempts are being made to control other important diseases like tuberculosis, brucellosis, etc. Creation of disease free zones in the states of Andhra Pradesh, Maharashtra (Zone I), Gujarat (Zone II), Haryana, Punjab, Delhi and Western U.P. are contemplated. Animal quarantine stations have been set up at New Delhi, Chennai, Mumbai and Calcutta to prevent the entry of exotic disease in the country. Import and export of livestock products are regulated through certification as per international standards. Attention needs to be given to conservation, augmentation and improvement of native breeds of cattle the bufflow and all other domestic animals through selective breeding in view of their heat tolerance, disease resistance and production under nutritional scarcity. Implementation of schemes relating to improvement of meat processing facilities and modernization of abattoirs has not been satisfactory; projects sanctioned during the 7th and 8th Plans in Karnataka, Kerala, Tripura and Assam are still to be completed. Establishment of carcass utilization centers to make use of hides, bones and other body parts of dead animals and value addition thereon also needs to be considered.

70. Ninth Plan year-wise allocations and expenditure for the first three years are given in Table-15.

Table-15. Progress of Plan Expenditure (Rs in crore)

Item	9th Plan Outlay	1997-98 BE	1997-98 Exp.	1998-99 BE	1998-99 Exp.	1999 2000 BE
Animal Husbandry	1076.12	160.02	94.84	170.40	51.48	160.08
Dairying	469.52	39.00	29.24	50.60	23.17	73.90
Total	1545.64	199.02	124.08	221.00	74.65	233.98

Source: Deptt. of AH&D

71. Attention is needed for cultivation of fodder crops and fodder trees to improve animal nutrition. The area under permanent pasture and grazing land has been estimated at 11.06 million ha. However, actual availability appears to be much less. An integrated approach for regeneration of the grazing lands needs to be evolved. A back up of technological innovations to evolve new varieties of grass/fodder would help to give a fillip to overcome fodder shortage. The fodder available in the country includes normally agricultural crop residues, grass and grazing, green fodder raised on agricultural land, weeds from agricultural fields and field bunds and leaf-fodder from trees. The types of areas producing fodder are broadly the cultivated lands, the forests and the grazing areas (both under Government and private ownership). Green fodder is mostly obtained from cultivated areas; about 4.4% of the total cultivated area is devoted to fodder production. Forests too contribute about 10-25% to the green fodder supply, besides providing dry grasses. The Committee on Fodder and Grasses estimated that in 1985 only about 57 per cent of dry fodder and 27 per cent of green fodder requirements were being met. Because of lack of fodder resources, cattle population has only marginally increased from 155 million in 1951 to 200 million in 1987. However the number of goats and sheep that can survive in harsher environment has increased by 100% and 26% respectively in the same period. This could be both - a consequence of land degradation as well as its cause. Including these two categories the total livestock population during 1951-87 has increased from 292 to 445 million, giving a growth rate of less than 1.2% annually. Had the productivity of grass lands and forests increased by more than 1.2%, the imbalance between the carrying capacity of present public and forest lands and livestock pressure would have been further narrowed.

Major achievements in Livestock Sector

- Country gained the position of single largest milk producer (74.7 million tonnes) & fifth largest egg producer (30.14 billion nos.) in the world.
- Dairy Cooperative network covering 376 districts of Operation Flood and Non-Operation Flood (hilly & backward) areas reached about 106.18 lakh people.
- Facilities for processing of 211 lakh litres of milk per day developed.
- Country achieved provisional freedom from rinderpest w.e.f. 31.3.1998.

Policy issues

72. In the past, government owned public lands outside forest areas constituted an important source of grazing. In the absence of any policy for proper management, these areas decreased in extent and deteriorated. Decrease in their area and productivity resulted in under-nourishment of the livestock and also in the degradation of forests as a result of overgrazing. While the national forest policy deals with forest areas and the agriculture policy deals with agriculture areas under private ownership, Government owned wastelands are left uncared for. A clear policy for the conservation and development of these areas for grazing and fodder production is called for. Conflicting claims on these lands for expansion of agriculture or forestry will have to be resolved.

73. Under the present arrangement, fodder production is nobody's specific responsibility. The Agriculture Department is concerned with food production, while Animal Husbandry Department's interest mainly appears to be animal health and breeding. The mandate of the Forest Department is forest conservation and wood production (including fuel wood) although grazing and grass cutting

is permitted. In the absence of clear responsibility for fodder production, the livestock has to survive mainly on the residues of agricultural crops and on grass and grazing available from forests and uncultivated wastelands. The agriculture policy should clearly provide that the responsibility of fodder for livestock should be of the owner if he owns land; Government wastelands should be used to produce fodder for livestock owned by the landless. Any fodder development programme should deal with all the land resources available such as cultivated lands, Government wastelands and forests. Fodder development on cultivated lands should deserve priority to make every farmer self-sufficient in fodder. A policy direction to use the Government wastelands according to land capability is necessary to stop encroachments of such lands for agriculture or for growing trees not otherwise suitable for such sites.

Fisheries

74. The fisheries sector provides employment to about 3.84 million full or part time fishermen, with an equally impressive segment of the population engaged in ancillary activities associated with fisheries and aquaculture Potential of marine and inland resources has been estimated at 3.9 million tonnes and 4.5 million tonnes respectively. At present, total fish production is 5.26 million tonnes. Having almost reached a plateau in production from the coastal waters, the scope for increasing fish production from marine sources now lies in the deep sea. In the inland sector, however, there is considerable scope for increasing production and productivity by sustainable exploitation of the existing resources. The potential for fishery development in East and North Eastern states is immense and fish is an important constituent of diet of majority populace of the states in this region. Development of fisheries can go a long way in solving the problems of providing food as well as employment to region's predominant rural populace and water recharging.

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75. Ninth Plan has focused on an integrated approach to sustainable development of fisheries and aquaculture and aims to optimize production and productivity, augment export of marine products, generate employment, improve socio-economic conditions of the fishermen and fish farmers, conserve aquatic resources and genetic diversity and increase per capita availability and consumption of fish. The major thrust is on expansion of aquaculture in freshwater and brackish water, development of reservoir fisheries, strengthening of infrastructure like fishery harbours and fish landing centres.

76. For the Ninth Plan period, Rs.800 crore have been earmarked for the fisheries sector. Against the outlays of Rs.119.15 crore for 1997-98 and Rs.159.90 crores for 1998-99, expenditures was only Rs.85.06 crore (71.4 %) and Rs.*91.42* crore (*57.2%*) respectively. Allocation for 1999-2000 is Rs. 145.92 crore.

77. The Ninth Plan fish production target of 7.04 million tonnes envisages a growth rate of 5.70 percent per annum. During the first two years of the Plan, fish production was 5.39 million tonnes (1997-98) and *5.26* million tonnes (1998-99) against the target of 5.65 million tonnes and 5.97 million tonnes respectively. Production target for 1999-2000 is 6.3 million tonnes. The riverine fisheries have been affected due to abstraction in various farms, sedimentation, effluxion and increasing pollution. The slow performance of brackish water aquaculture activities is due to the Supreme Court judgement prohibiting these activities within the Coastal Regulation Zone (CRZ). Legislation to regulate the brackish water aquaculture is yet to be enacted. Formulation of Deep Sea Fishing Policy is essential to exploit the fishery resources in the Exclusive Economic Zones (EEZ).

78. The giant, global fish and seafood market worth $ 8,000 million has encouraged mushroom growth of intensive and semi-intensive prawn farms along the elongated coastline as well as intensive and mechanized fish farming in the coastal waters. Boosted by the liberal Exim policy, shrimp farming developed feverishly and unpoliced in India. Of the 1.2 million ha of brackish water areas in India inclusive of ponds, lakes and lagoons spread along the coastline, about 80000 ha is under shrimp culture (80% under extensive methods and the rest under modified extensive and semi-intensive modes).

79. As aqua farming requires capital investment, the ownership of lands steadily gravitates to the cash-rich urban businessmen. Though there has been some investigation into the environmental impact of large shrimp farms, there is little, in terms of sound aquaculture policy taking care of above concerns in place to comprehensively deal with the loss of productive assets and threats to livelihood generated by aquaculture.

80. Some of the major constraints being faced in the development of the fishery sector are inadequate infrastructure for fish seed production and rearing space, lack of feed support to freshwater and brackish water aquaculture, lack of trained manpower and infrastructure for the same, inadequate infrastructures for fish gene banks, marketing linkages, lack of research input to control fish disease etc. Further, technologies for raising seed of minor carps, catfish and cold-water fish species area also required to fill the gaps.

81. Greater emphasis needs to be given by the research institutions for developing technology for breeding and seed production of commercially viable fresh water fish and package of practices for pen culture and cage

fish farming. Advanced technologies for augmenting inland fish production through integrated fish farming, running water or flow-through systems are required to be promoted. Measures should also be taken to conserve coastal fishery resources and exploiting deep sea fishery resources in the EEZ of the country.

Agriculture Research & Education

82. Indian Council of Agriculture Research (ICAR) is the nodal agency at the national level for promotion of science and technology in the areas of agricultural research and education and demonstration of new technologies as frontline extension activities. ICAR has developed a National Grid comprising 46 Institutes including 4 Deemed Universities, 4 National Bureau, 9 Project Directorates, 31 national Research Centres, 158 Regional Stations and 80 All India Coordinated Research Project (AICRPs) in different parts of the country. The educational programmes are carried out by 30 State Agriculture Universities (SAUs) and one Central Agriculture University (CAU). National Bureau of Animal Genetic Resources (NBAGR - Karnal), National Bureau of Fish Genetic Resources (NBFGR - Lucknow) have been further strengthened to enhance their work capacity in respect of collection, acquisition, quarantine, characterization, evaluation, maintenance, documentation, conservation and awareness generation.

83. The Ninth Plan outlay for ICAR has been stepped up to Rs.3377 crore, against Rs. 1300 crore for the Eighth Plan. Besides, a World Bank aided (US $ 239.7 million) National Agriculture Technology Project (NATP) in agro-eco system research, innovation in technology dissemination and organisation and management systems is under implementation since 1998.

84. All activities relating to transfer of technology (ToT) programmes of the Council have been integrated with Krishi Vigyan Kendras (KVKs) and their mandate enlarged to perform the function of on-farm testing/ research, long-term vocational training, in-service training of grass-root level functionaries and frontline demonstrations. During first two years of Ninth Plan 53 districts have been identified to strengthen the existing Zonal Research Stations (ZRS), to take up the additional functions of KVK raising the number of KVKs to 314.

85. Agricultural Research Institutes are multiplying at a fast rate and also growing in size. Research activity is initially taken up as All India Coordinated Research Project (AICRP), which later gets split into specialities, which after sometime gets converted into National Research Centre and thereafter as Project Directorate before its elevation to an Institute and if possible, to Deemed University. Separate National Centres and Directorates are opened for different crops/different aspects of crop/activity.

86. The above approach makes it difficult to take an integrated view of R&D work being carried under various projects viz. All India Coordinated Research Project, Centres, Directorates and Institutes of Excellence & their linkages with Agriculture and productivity improvement schemes of the Department of Agriculture and Cooperation and Department of Animal Husbandry.

87. Proliferation of institutes is pushing up the establishment cost significantly leaving very little for R&D work. This also places scientists in watertight compartments leading to sub-optimal utilization of manpower and equipment.

88. The results of research activities undertaken by ICAR are not commensurate with the huge infrastructure set up. While examining the ICAR proposal on Technology Mission on Horticulture in NE Region, the State Governments have adversely commented on the ability of ICAR to provide the desired inputs. Similarly, while discussing Technology Mission on Cotton, ICAR wanted additional funds for undertaking work for the Technology Mission. It indicates that the research activities being undertaken by ICAR are not what are required by the end users and we have to make specific additional provisions for research activities that are relevant for the nation.

Summing up - Agricultural Reforms and Structural Issues

89. There are many structural and institutional issues which need to be addressed for stepping up agricultural growth. This is vital for promoting the welfare of masses, arresting the widening inequality and achieving the growth of the economy at a higher and sustainable level. A multi-dimensional reform agenda for agriculture should be drawn up for improving incentives to produce, rationalizing subsidies and promoting investments, besides, extending protective cover to the poor. A review of myriad controls in domestic market of agricultural produce is an urgent necessity. Control on trading and processing of agricultural commodities block free movement of goods and impose stocking limits on private traders and processors. For example, rice and sugar processors are liable to levies and processing of major oilseeds is reserved for small-scale sector. Similar controls have been imposed under the Essential Commodity Act, which run counter to market and processing efficiency. Unless these are dispensed with, private sector investment would not be attracted. Canal systems are in poor shape for lack of operations and maintenance outlay. These should be improved by

involving users' groups in management and appropriate pricing of water to cover full operation and maintenance costs. Most of the States will have to rationalise power subsidy for improving the quality of power. Other institutional reforms relate to land laws and rural credit. The lease market in land needs to be opened up to promote economically viable size of holdings. Rural credit structure needs revamping because of large number of unviable primary cooperatives. Most of the States have yet not amended State Cooperatives laws on the lines of Model Cooperative Act. These measures can put agriculture on higher growth trajectory as well as trigger growth in other sectors.

90. Capital intensity is increasing for all categories of farmers, but at a faster pace in Green Revolution areas and for large farmers. This is causing a resource squeeze in agriculture, as marketable surplus has been increasing at a slower rate to absorb incremental costs. As a result, though buffer stocks are increasing, there is co-existence of hunger because of poor purchasing power. The phenomenon of self-sufficiency is somewhat illusory as the demand is depressed. There is imperative need to adopt, labour intensive production technologies, particularly in rainfed areas to cut cash costs. Some of major reforms and structural issues are summed up below:-

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(i) Removal of domestic market control on agricultural produce.
(ii) Rationalization of subsidies on inputs which adversely affect sustainable development and use of land and water resources.
(iii) Institutional reforms relating to rural credit.
(iv) Opening of lease market in land to promote economically viable size of farm holdings.
(v) To check tribal land alienation and protect the rights of women in land.
(vi) Intensification of development of rainfed areas and exploitation of ground water potential especially in Eastern Region.
(vii) Promotion of balanced use of fertilizers and strengthening of soil testing facilities
(viii) Augmenting the Seed Replacement Rate (SRR) through enhanced supply of certified / quality seeds.
(ix) Minimizing the use of pesticides, through popularization of IPM approach.
(x) Strengthening of post harvest handling processing, storage /cold storage and marketing facilities.
(xi) Strengthening of Dairy Cooperatives
(xii) Review of policy on deep sea fishing policy.

91. Future agricultural growth could be speeded by policy and institutional reform in the sector, namely a) changed pattern of spending to building up of capital assets and a reduction in distortionary subsidies; b) deregulation of the processing sector and termination of the use of credit subsidy as a transfer mechanism; and c) empowerment of the poor by improving their access to land and common resources, increasing their control over services and infrastructure in rural areas, and improved safety nets.

92. The above-mentioned policy reforms would also help reduce poverty. For example, increased public spending on rural roads, agricultural technology improvement, and irrigation would all help reduce poverty. Growth in the rural non-farm sector would also benefit from improved infrastructure (roads, power, communications) and social services. More efficient and competitive markets can deliver better prices and greater market opportunities to farmers, without raising consumer prices, which would help farmers offset the impact of cuts in subsidies. Better markets together with futures markets and eased restrictions on commodity movements and private participation in international trade can help reduce price fluctuations.

CHAPTER 4

IRRIGATION, FLOOD CONTROL AND COMMAND AREA DEVELOPMENT

Introduction

The Ninth Year Plan target is to achieve a growth rate of 4.5% per annum in agricultural output in order to make a significant impact on overall growth and poverty alleviation. With the net sown area almost stagnant in the country at 140-141 million hectare area (m.ha.), further expansion of irrigation, including additional irrigation through modernisation/renovation of irrigation capacities, is needed as a critical input to achieve the targeted growth rate of agriculture. .

Issues & Imperatives in Irrigation Sector

A. The biggest single malady in major and medium irrigation sector right from First Plan has been the tendency to start more and more new projects resulting in wanton proliferation of projects, thin spreading of resources and consequent time and cost over runs. Table NO. 4 shows the number of projects taken up and completed from Fifth Plan onwards. Prioritisation of projects (within each state) for resource concentration is imperative as also their early completion. .

B. Conjunctive use of ground water and surface water resources need to be planned in the irrigation projects from the beginning. For ongoing projects the conjunctive use could be included now if it has not been planned and States could formulate an action plan formulated accordingly.

C. There is a need to take steps for improving water use efficiency through renovation and modernisation of existing systems (which have deteriorated over the years) and making radical changes in water distribution and field level management policies.

D. There is acute need for reforms in the irrigation sector in the States. Cost of irrigation management needs to be reduced, rates/water charges raised and water use rationalised. Programmes like Accelerated Irrigation Benefit Programme (AIBP) need to be re-oriented to act as instrument of reforms.

E. Institutional finance plays an important role in implementation of Minor Irrigation Schemes. However, the total credit refinanced by National Bank for Agricultural and Rural Development (NABARD) for minor irrigation has decreased from Rs. 795.32 crore in 1995-96 to Rs. 477.91 crore in 1997-98. In addition, the institutional investment being provided under normal programme by Land Development Banks decreased from Rs. 37.29 crore in 1995-96 to Rs. 10.72 crore in 1997-98. This situation needs to be remedied.

F. There is a need for protection and regulation of Ground Water Development particularly in areas where groundwater is getting depleted. Measures should be taken to check its over exploitation. Soil degradation due to irrigation induced waterlogging, salinity and alkalinity is to be checked . There is need to map water quality and prevent its deterioration due to man-made causes.

G. At present only about 25% of ground water resource has been developed in major eastern States and there is scope to tap the available vast unutilised ground water resource potential in co-terminus areas in Bihar, Orissa, Eastern parts of UP and West Bengal for irrigation. This would, however, require secure supply of electric power in this region.

H. NABARD is providing loan assistance to the States for irrigation schemes under Rural Infrastructural Development Fund. The details (Annexure-12) of releases made for the irrigation sector under different tranches of RIDF (Rural Infrastructure Development Fund) by NABARD show a decline.

I. In the light of the experience gained so far, broad basing of the Command Area Development Programme (CADP) and certain modifications in the programme are under consideration.

J. In spite of the emphasis placed on farmers participation in the management of irrigation, the progress so far in this regard is rather slow. For the success of the programme legal, financial and technical support/ backup is required to be given to water user associations. There is an urgent need for farmers' participation from the initial stages of project development.

K. An area of 40 million ha. is flood prone out of which about 32 m. ha. can be provided with reasonable degree of flood protection . However, at the end of Eighth Plan a total area of 19.02 m.

ha. was provided with reasonable flood protection which is about 59.4 % of the total area protectable . There is a need for higher level of funding for flood protection works by the States.

L. The National Water Policy was adopted in 1987. Since then a number of problems and challenges have emerged in the development and management of the water resource sector. The existing water policy needs to be revised .

M. Most of the States at present have very low irrigation water rates and some of the States have not revised these rates for the last 2-3 decades . Even some States do not have water rates. Therefore, the State Governments may revise/ levy water rates to reach a level adequate to cover at least operation and maintenance cost of irrigation systems. In addition steps may be taken by them for reducing their establishment costs and improving the collection efficiency of water rates.

N. Water resources are very unevenly distributed over the country. Some regions have abundance while other States suffer from acute scarcity. To meet the essential requirements of regions with acute scarcity, there is need to consider a limited and feasible amount of inter-basin transfer.

O. The construction of big dams in the country has contributed to large areas being submerged and large scale displacement of people from their original habitats. Therefore, a national rehabilitation and resettlement policy needs to be formulated early .

P. Water storages are subject to silting. Sedimentation of reservoirs is a matter of vital concern to all water resources development projects. The problems of sedimentation need careful consideration and there is an urgent need to review the status of reservoir sedimentation. Project authorities should earmark adequate funds for this purpose as a part of operation and maintenance of reservoirs.

Q. There is need for encouraging private sector participation in the Irrigation Sector.

R. The traditional methods of water harvesting and water storages need to be reviewed. Tanks were very important source of water storage traditionally but have deteriorated or are silted or gone into complete disuse due to negligence. These need to be renovated and reconstructed.

Ninth Plan Strategy For Irrigation Development

2. The overall strategy of irrigation development and management during the Ninth Plan has the following core ingredients:

(a) To improve water use efficiency by progressive reduction in conveyance and application losses;

(b) To bridge the gap between the potential created and its utilisation by strengthening the Command Area Development Programme, institutional reforms and promoting farmers' involvement in irrigation management;

(c) To complete all the ongoing projects, particularly those which were started during pre-Fifth and Fifth Plan periods, in a time bound programme to yield returns on the investments made;

(d) To restore and modernise old irrigation systems which were executed long years ago.

(e) To introduce rational pricing of irrigation water, based initially on O&M (operation and maintenance) cost and then to encourage higher level of water use efficiency;

(f) To take concrete steps towards comprehensive and integrated development of natural water resources, taking into account the possibility of inter-basin transfer of surplus water ;

(g) To promote adaptive research and development to ensure more cost-effective and efficient execution and management of irrigation systems;

(h) To promote Participatory Irrigation Management (PIM) with full involvement of the water user community, which will be at the centre stage of Ninth Plan implementation strategies;

(i) To encourage and implement the conjunctive use of ground and surface waters towards optimal utilisation of water resource and to have its development environmentally sustainable as well; and

(j) To accelerate the development and utilisation of ground water, particularly in the eastern region, on sound technical, environmental and economic considerations along with proper regulatory mechanisms.

Financial Outlays & performance

3. The financial performance in first three years of the Ninth Plan is summarised in the following table.

Table NO. 1
Central Sector

(Rs. Crores)

	9th Plan Outlay	Actual Exp. 1997-98	Actual. Exp. 1998-99	Outlay 1999-2000	Total 1997-2000 (3 years)	Percentage outlay In the First three Years w.r.t. 9th Plan Outlay
Major & Medium Irrigation	330.12	36.72	49.03	55.80	141.55	43
Minor Irrigation	385.00	42.84	48.29	55.41	146.54	38
Command Area Development	860.00	129.26	174.90	177.00	481.16	56
Flood Control	716.13	67.17	74.57	81.79	223.53	31
Total	**2291.25**	**275.99**	**346.79**	**370.00**	**992.78**	**43**

State Sector

(Rs. Crores)

	9th Plan Outlay	1997-98 Actual Expenditure	1998-99 Revised Outlay	Approved Outlay 1999-2000
Major & Medium Irrigation	42629.22	7523.16	9273.12	12228.81
Minor Irrigation	8977.03	1456.59	1746.81	2117.79
Command Area Development	2032.11	303.43	303.60	315.39
Flood Control	2212.12	351.87	573.21	662.36
Total	**55850.48**	**9635.05**	**11896.74**	**15324.35**

Major & Medium Irrigation

Plan outlays & expenditure

4. The table given below indicates the outlays and expenditure for major and medium irrigation projects during the Ninth Plan.

Table NO. 2

(Rs. Crores)

Year	Central Sector		State Sector	
	Approved Outlay	Actual Expenditure	Approved Outlay	Actual/ Ant. Exenditure
9th Plan	330.12		42629.22	
1997-98	44.69	36.72	8362.91	7523.16
1998-99	50.25	49.03	10024.03	9273.12
1999-2000	55.80	48.12	12228.81	11002.42

5. The ultimate irrigation potential through major and medium irrigation projects has been assessed at 58.46 M Ha . The potential created at the end of Eighth Plan was 32.95 M. Ha. It is targetted to create an additional irrigation potential of 9.81 M Ha. during Ninth Plan. The physical performance is given in table -3

6. Given the proliferation of projects, the following table shows the number of projects taken up and completed from Fifth Plan.

Table No. 3

(M.Ha.)

Period	Target	Achievement
IX Plan	9.81	
1997-98	1.03	0.66
1998-99	0.88	0 65
1999-2000	0.83	

Table NO. 4

Plan Period	Major		Medium	
	Taken Up	Completed	Taken Up	Completed
Fifth Plan (1974-78)	68	6	303	70
Annual Plans (1978-80)	11	2	55	18
Sixth Plan(1980-85)	31	30	89	138
Seventh Plan (1985-90)	11	14	36	137
Annual Plans(1990-92)	2	7	—	12
Eighth Plan (1992-97)	19	9	72	48
Total	**142**	**68**	**555**	**423**

7. As part of the Ninth Plan strategy, it has been decided to complete the ongoing projects particularly those which were started during pre-Fifth and Fifth Plan period as a time bound programme to yield benefits from the investments already made. As such the State Governments may not take up new projects unless the needs of the ongoing ones are fully met. The States may draw up an action programme with a fixed time frame not only for expeditious completion of ongoing projects but also for achieving better utilisation from completed projects.

8. At the beginning of Ninth Plan there were 171 major projects with a spillover cost of Rs.60,806 crore , 259 medium projects with a spillover cost of Rs. 5,743 Crore and 72 Extension, Renovation and Modernisation (ERM) projects with a spillover cost of Rs. 9,142 crore. They all added up to Rs. 75,691crore involving an additional irrigation potential of about 16.50 M Ha. State-wise details may be seen in Annexure 5.

Priority for Ongoing Projects

9. There is an urgent need for prioritisation of ongoing and new projects. Suitable guidelines in this regard may be framed for deriving optimum benefits. The desirable attributes of a project for receiving the priority could be (i) advanced stage of construction (ii) efficiency of the remaining part of the project in creating residual benefits at low residual cost, (iii) projects addressing regional imbalances like irrigation inequalities (iv) need for developing benefits for tribal inhabitants in the command (v) drought prone areas (vi) inter state aspects (vii) projects

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with bulk water supply (viii) projects with no change in scope (ix) formulation and management of Environment/ Forest/R&R (Rehabilitation & Resettlement) Action Plan, (x) simultaneous planning and design of secondary canal network (xi) multipurpose projects (xii) submission of revised estimates (xiii) Geological (xiv) design and (xv) quality control infrastructure at field level. In addition to the above attributes, the State Government could provide special weightage for one or two locally important attributes decided by a documented and notified State policy. It is also emphasised that investment may be judiciously phased and examined in depth for each of the ongoing and new schemes.

10. The Planning Commission has recently identified 43 major irrigation projects which were started during the Pre-Fifth Plan period. An exercise has been initiated for their time bound completion. Annexure 6 indicates the funds released under Accelerated Irrigation Benefit Programme for completion these projects. There is an urgent need for prioritisation of projects within each state for resource concentration and early completion.

Conjunctive Use of Ground Water and Surface Water

11. This concept recognises *water as a single natural resource* although the method of exploitation may involve both surface and groundwater structures. Internationally conjuncture management is being viewed as the integrated operation of surface and ground water systems to optimise the availability of water.

12. The National Water Policy 1987 recognises the need for conjunctive use and recommends planning for conjunctive use right at the formulation of project itself. The country can no longer afford to plan to utilise surface and ground water resources almost in isolation from each other.

13. The Ministry of Water Resources took up evaluation studies on 17 project commands which have revealed that the utilisation of ground water in the command area is generally very low and it has not been accounted for in the water budget at the time of project conception and as a result the ground water table has risen in several cases. Under the circumstances there is a need for taking the following steps.

a. At the project preparation stage the conjunctive use of the surface and ground water needs to be planned by the project authorities.

b. In the case of ongoing projects necessary steps should be initiated to include conjunctive use of ground water with surface water. In the case of completed projects, Action Plans may be formulated by States to ensure conjunctive use of groundwater and surface water for the benefit of farmers.

14. Recharge is an important component of groundwater management. The recharge activities being undertaken by the Government and through private initiatives need to be intensified.

Water Use Efficiency

15. Water use efficiency is at present estimated to be only 38% to 40% for canal irrigation and about 60% for ground water irrigation schemes. Being the major water user, the share of irrigation in the total demand is bound to decrease from the present 83% to 74% due to more pressing and competing demands from other sectors by the year 2025 and, as such, the question of improving the present level of water use efficiency in general and for irrigation in particular assumes great significance in water resource planning. With a 10% increase in the present level of water use efficiency, it is estimated, an additional 14 m.ha area can be brought under irrigation from existing irrigation capacities. This would involve a very moderate investment as compared to the investment that would be required to create equivalent potential through new schemes.

Renovation & Modernisation Of Irrigation Projects

16. The effective irrigation area can be increased through timely renovation and modernisation of the irrigation and drainage systems, including reclamation of waterlogged and salinised irrigated lands through low-cost techniques. This needs to be considered especially in the context of the present resource constraints. It is estimated that about 21 m.ha of irrigated area from major and medium projects from pre-Independence period and those completed 25 years ago require renovation/upgradation/ restoration. Large areas have gone out of irrigation, either partly or fully, due to deterioration in the performance of the systems. The total investment involved is estimated at Rs.20,000 crore to Rs30,000 crore over a period of 20 years. A Water Resource Consolidation Project with World Bank assistance is in progress at present in the States of Haryana (estimated cost - Rs.1,858 crore), Tamil Nadu (Rs.815 crore) and Orissa (Rs.1,409 crore) . Recently, a World Bank-aided Andhra Pradesh Irrigation Project (Phase-III) has been taken up for modernisation/renovation of select irrigation projects. However, there is a need to take steps for improving water use efficiency through modernisation/renovation

of existing systems which have deteriorated over the years. In his 1999-2000 budget speech, the Union Finance Minister proposed larger assistance to States that rationalise their water rates to cover O&M costs., Following it up, a proposal for taking up renovation and modernisation of irrigation systems is under consideration of the Government .

Accelerated Irrigation Benefit Programme (AIBP)

17. AIBP was launched by the Central Government in 1996-97 for expeditious completion of approved ongoing major/medium irrigation projects . Central assistance is given under the programme in the form of loan and is provided to those projects which have investment clearance by the Planning Commission. From 1999-2000, minor irrigation schemes, both new as well as ongoing, are eligible under this programme in case of Special Cateogry States. and Kalahandi-Balangir-Koraput (KBK) districts of Orissa. Further, as per the revised guidelines Central Loan Assistance (CLA) for the projects is provided to the Non Special Category States in the ratio of 2:1 (Centre : State). For Special Category States the funding is in the ratio of 3:1. The projects benefitting KBK districts of Orissa are treated on par with Special Category States as far as funding pattern is concerned. During 1996-97, a sum of Rs.500 crore was released to 52 projects in various States . In 1997-98 and 1998-99 the releases were Rs.952.19 crore and Rs.1,119.18 crore respectively. During 1999-2000 against a budget provision of Rs.1,600 crore which was reduced to Rs. 1,400 crore in the revised estimates (RE), releases amounting to Rs.1,397.89 crore were made for major and medium projects and Rs. 62.70 crores for 1783 minor irrigation schemes.

18. The State-wise utilization of AIBP funds is indicated in Annexure 7. These figures show some skewness and certain States have not been able to take full benefit of the programme. With this point in view the scope and pattern of funding have been modified during 1999-2000 as mentioned earlier.However, there is a need for reorientation in AIBP to make it act as a vehicle to usher in reforms in irrigation system.

19. Under the 1999 guidelines for Accelerated Irrigation Benefits Programme (1999), major/ medium irrigation projects which are in advanced stage of construction are to be considered for inclusion under this programme except irrigation projects in the initial stages of construction benefiting KBK districts of Orissa . On the basis of available information the following broard conclusions emerge:

Table No. 5

Sl. Item	Total	Stage of construction in terms of level of expenditure as % of LEC as on March 1997		
		More than 75%	30% to 75%	Less than 30%
1. No. of Projects under AIBP	104	24	56	24
2. Amount Released (Rs. Crores)	3173.52	437.47	1273.91	1462.14
3. Physical Benefits upto March, 99 (000 hac.)	305.23	58.01	194.99	52.206

20. From the above it can be seen that the share of irrigation projects at advanced stage i.e. having expenditure level more than 75% is just 14% in the total AIBP funds released during the period 1996-2000 . Similarly out of 104 projects now under AIBP only 24 projects are in advanced stage of implementation. Similarly, the share of the projects at advance stage of implementation is less than 20% in total additional irrigation potential as reported to have been created by AIBP funding.

21. There is a need to avoid such distortions in the releases of AIBP funds. Before accepting an irrigation project for AIBP funding, Central Water Commission (CWC) in consultation with the State Governments should thoroughly examine the full portfolio of ongoing projects of the State to identify projects on the basis of their expenditure level as well as the criticality of the stage of implementation in order to fulfil the objective of AIBP to yield bulk benefit with the least investment .

External Assistance for Development of Water Resources

22. Development of water resources in various regions of the country requires large financial investments; external assistance from different funding agencies is required to fill up the resource gap. World Bank continues to be the primary source of external assistance in this sector. The other donors are European Economic Commission, OECF-Japan, Kfw Germany and the Netherlands Government.

23. A brief account of the ongoing schemes with World Bank assistance in various States is as per Annexure 8:

Utilisation of External Assistance

24. During the period 1997-98 to March, 2000 an amount of Rs. 2,386.53 crore has been received from the

World Bank , European Economic Community and other bilateral agencies and used in implementation of various externally aided projects in the water sector.

Minor Irrigation

25. All ground water and surface water schemes having culturable command area up to 2000 ha individually are classified as *minor* irrigation schemes. The ultimate irrigation potential from minor irrigation schemes has been assessed as 81.43 m. ha. comprising 17.38 m. ha from surface water schemes and 64.05 m. ha from ground water schemes. Up to the end of the Seventh Plan, the potential created through minor irrigation schemes was 46.6 m. ha. and at the end of Eighth Plan it was estimated at 56.60 m. ha. Hence, the balance potential available at the beginning of Ninth Plan works out to 24.83 m. ha. The target of potential creation during the Ninth Plan has been fixed at 7.24 m. ha. The year-wise potential created and potential utilised during the Ninth Plan is given in the following table.

Table No. 6

(Mill.Ha.)

Year	Potential Created		Potential Utilised	
	Target	Achievement	Target	Achievement
9th Plan	7.24	-	4.93	-
1997-98	0.54	0.80	0.52	0.73
1998-99	1.61	0.74	0.88	0.73
1999-2000	0.58		0.45	

Plan Outlays and Expenditure

26. The minor irrigation schemes are funded from plan funds , institutional finance and private investments by farmers. The following table indicates the outlays and expenditure for minor irrigation during the Ninth Plan.

Table No. 7

(Rs.Crore)

Year	Central Sector		State Sector	
	Approved Outlay	Actual/ Ant Exp.	Approved Outlay	Actual/ Ant Exp.
9th Plan	385.00		8977.03	
1997-98	70.16	42.84	1799.20	1456.59
1998-99	67.00	48.29	2057.20	1746.81
1999-2000	55.41	54.62	2117.79	1769.80

Institutional Investment for Minor Irrigation

27. Institutional finance plays an important role in implementation of Minor Irrigation schemes. The Land Development Banks,. State Cooperative Banks, Commercial Banks and NABARD provide credit facilities to the farmer and institutions for development of minor irrigation facilities. Institutional finance by NABARD for minor irrigation schemes has been decreasing over the last three years. The total credit refinanced by NABARD for minor irrigation has decreased from Rs.795.32 crore in 1995-96 to Rs.477.91 crore in 1997-98. State-wise details are given in Annexure 9. In addition the institutional investment being provided under the normal programme by the Land Development banks/cooperative banks has decreased from Rs.37.29 crores in 1995-96 to Rs. 10.72 crore during the year 1997-98. State-wise details are presented in Annexure 10. In order to find out the reasons for decline in credit disbursement , a meeting was held in July, 1999 in the Ministry of Water Resources. At the meeting it was pointed out by several cooperative banks that the meetings of the Unit Cost Committee set up by NABARD were not held on a regular basis. Since the unit cost has not been revised, the lending for minor irrigation sector has reduced.. It was also pointed out that in many cases the ground water availability report as given by State Government Ground Water Board was not updated and in several cases found to be inaccurate.. A similar Central Ground Water Board operates more than 13,000 observation wells in the country and the Board regularly conducts studies on water availability as well as its behavior in different parts of the country. It was decided, therefore, that the studies by the Central Board be used for the purpose of providing financial assistance to the minor irrigation sector. It was also noted that late approvals by NABARD contributed to delay in granting credit to this sector. There was a general consensus that the eligibility conditions for institutional finance for minor irrigation should be less restricted. There has been a decline in institutional finance due to persisting default by some States as the recovery level is very low in these States. The Ministry of Water Resources is taking steps to remove the above problems and ensuring that the credit disbursement provided by NABARD and State cooperative banks for minor irrigation does not decline.

Ground Water Development and Related Issues

Over-Exploitation of Ground Water

28. Though a localized phenomenon now, over-exploitation of ground water is steadily posing a serious concern in the overall ground water development and management in the country. With rapid expansion in groundwater extraction the number of over-exploited and dark blocks has increased over the years as may be seen from Table.-8

Table No. 8
No. of Overexploited and Dark Blocks.

State	1984-85	1998-99
Andhra Pradesh	0	30
Bihar	14	1
Gujarat	6	26
Haryana	31	51
Karnataka	3	18
Kerala	N.A.	1
Madhya Pradesh	0	3
Maharashtra	–	34
Punjab	64	70
Rajasthan	21	56
Tamil Nadu	61	97.
U.P.	53	41
Total	**253**	**428**

29. Although the number has declined in some locations, an overall increase of 51 percent has occurred over a period of seven to eight years. If this rate continues, the number of over-exploited and dark blocks will double every twelve-and –a-half years. This points to the need for protection and regulation of ground water development.

30. The Central Ground Water Board (CGWB) has assessed that there is a feasibility of installing 9.1 million ground water structures (6.4 million dug wells, 2.6 million shallow tube wells and 0.1 million deep tube wells) in the Eastern region of the country. The availability of replenishable ground water potential in this region and the above structures put together can provide irrigation potential of about 20 m.ha. out of which about 14 m.ha. is from shallow and deep tube wells.

31. In Gujarat, pumping depressions due to agriculture greatly affect the availability of water for urban areas such as Gandhinagar. The impact of agricultural pumping on the availability of rural drinking water has also been reported in several cases. A sample survey by the Rajiv Gandhi National Drinking Water Mission in 1994 found that one-third of sample households had experienced seasonal or permanent drops in water level. The decline in water level can affect the domestic water supply even where there is no real threat of overdraft. Fluctuations in the water table, which are due to ground water extraction for agriculture, reduce the reliability of shallow wells as sources of drinking water. Water quality is another major concern. Increases in flouride above acceptable levels in drinking water have for example, been directly correlated with pumping rates and declines and fluctuations in the water level in some places. Similarly, over-exploitation of ground water in coastal area has resulted in seawater ingress in a few cases, Madras for example. In the arid and semi-arid regions of Rajasthan, Punjab, Haryana, Gujarat etc. over-pumping of fresh ground water has resulted in mixing of fresh ground water with saline ground water thereby deteriorating the ground water quality. There is a need to map water quality and phase out its deterioration due to man-made causes.

Regulation of Ground Water Extraction:

32. Central Ground Water Authority was constituted by the Government under the directions of the Supreme Court. The Authority was first set up for a period of one year which was later extended for five years on 13 January 1998 for purposes of regulation and control of ground water development and management. The initial approach of the Authority is to put a major thrust on educating the people on conservation and proper utilisation of water. There is need to encourage Involvement of masses through community participation in the regulation of ground water usage and its augmentation through artificial recharge. Mass awareness programmes are to be launched on a large scale for achieving this goal. However, in areas where the situation is fast deteriorating, further stringent measures are to be adopted to check further depletion/ pollution of the resource. This may include declaration of such areas as 'Notified Area', permission of Authority for installation of new bore wells in 'Notified Areas', prohibition on extraction of ground water for commercial purposes, etc. Central Ground Water Authority declares areas of steady depletion of ground water and areas suffering from ground water contamination as 'Notified Area' for the purpose of restricted usage of ground water.

33. Central Ground Water Authority registers persons/ agencies engaged in the construction of wells. More than 900 drilling agencies have been registered so far on an All India basis. The Authority has tested water samples at different locations through its mobile chemical laboratory to re-evaluate the quality of ground water and to identify toxic elements.

34. Groundwater management needs and options vary between areas and change over time. Artificial recharge of acquifer systems is gaining importance as one of the strategies of water management in the context of ever growing demands for water resources CGWB has taken up artificial recharge studies under the Central Sector Scheme in the dark and over exploited blocks. Rainwater harvesting and similar recharging techniques requires to be popularised and implemented with participation of NGOs and water user Associations.

Monitoring and Evaluation

35. A majority of ground water pollution incidents

reported in scientific literature were discovered some time after sub-surface contamination began and, in most cases, contamination of water supply wells was the first indication of groundwater pollution problem. In India, the Central Ground Water Board and various state Ground Water Departments are the main agencies monitoring periodic ground water quality from the wells. It would be in the fitness of things if all this enormous data so generated are properly computerised and maps are prepared relating to distribution of various solutes viz-a-viz aquifer geometry, aquifer lithology and other hydraulic parameters for different areas and various periods. This would help identification of type, magnitude and causes of ground water pollution in various parts of the country and would also help in evolving suitable measures for arresting the ground water pollution.

36. In a country like India where more than half the population is dependent on ground water, pollution of ground water is a serious matter. Due to limited cost-effective treatment options for this, the affected resource is generally lost for drinking purposes and other utilities. In order to forecast any ground water pollution threat, studies on ground water pollution need to be carried out in more industrial, rural and urban areas by establishing ground water pollution monitoring stations. These stations could be established around large industrial and urban establishment in the first phase followed by intensively cultivated areas. Soil deqradation due to irrigation- induced water logging, salinity and allied problems need to be checked.

Water Resource Development for increasing Agricultural Output in Eastern Region

37. The eastern region comprising Bihar, West Bengal, Orissa, parts of eastern Uttar Pradesh and eastern Madhya Pradesh is bestowed with abundance of rainfall, river flows and fertile soils. The ultimate irrigation potential of this region is 52.73 M.ha. roughly about 47% of the entire nation. Surface water is the predominant source of irrigation in this region. The irrigation potential of major and medium projects is 19.66 Mha., while that of minor irrigation projects is 33.07 Mha. including 12 Mha. from groundwater. In spite of the fact that the region is served by several rivers such as the Ganges, Mahanadi, Sharada, Gandak, Kosi and Sone, irrigation has been uncertain and undependable. There is scope – and much need — for tapping the available vast unlimited ground water resource potential in these States for irrigation; this would, however, require secure supply of electric power in this region. A scheme to harness the available ground water potential in the eastern region for increasing agricultural production is under consideration.

Financial Support For Accelerating Completion of Irrigation Projects: Rural Infrastructure Development Fund

38. A Rural Infrastructure Development Fund (RIDF) was set up in NABARD in 1995-96 with a corpus of Rs. 2,000 crore with contributions by Scheduled Commercial Banks (excluding foreign banks operating in India) to the extent of shortfall in agricultural lending in priority sector targets, subject to a maximum of 1.5% of net bank credit. Under RIDF at present, loan assistance is provided for major , medium and minor irrigation, soil conservation, watershed management , rural roads and bridges, integrated cold chain projects, integrated market yard projects and other rural infrastructure . The assistance is provided up to 90% of the updated cost of the scheme or the balance cost whichever is less and is repayable in 7 years along with interest at the rate of 12% or so per annum.

39. The following table shows details of sanctions and disbursement under different tranches of RIDF.

40. Table - 9 shows that the share of major, medium and minor irrigation schemes — which was about 90% of the RIDF-I disbursements — had declined to 36% in RIDF-II. State-wise details are given in Annexure 11. The purpose-wise sanctions under RIDF may be seen in Annexure 12.

Table No. 9

(As on 30.09.99) (Rs. Crores)

					Major,Medium & Minor Irrgn.	
	Impl. Period	Fund Provision	Total Sanctions	Total Disburse-ments	Sanctions	Disburse-ments
RIDF I (1995-96)	1995-97	2000	1825	1568	1708	1416
RIDF II (1996-97)	1996-99	2500	2610	1610	1231	578
RIDF III (1997-98)	1997-2000	2500	2678	879	941	189
RIDF IV (1998-99)	1998-2001	3000	3135	300	942	14
RIDF (1999-2000)	1999-2002	3500	1280		222	

41. A meeting was held under the Chairmanship of Deputy Chairman, Planning Commission, to review the RIDF programme. In this meeting, the following decisions were taken to improve the funding:

(a) Environment mitigation costs should be included in the projects

(b) The drawal claims can be submitted by the State Government even on a fortnightly basis as against the present practice of quartely claims.

(c) States must keep a shelf of projects ready for each sanction; these must also be prioritised. Whenever money is available or a new tranche is announced, projects can be sanctioned immediately.

(d) State Governments should take proper care of maintenance aspects which are not given due consideration.

COMMAND AREA DEVELOPMENT PROGRAMME

42. The CAD Programme was launched during 1974-75 as a Centrally Sponsored Scheme with the main objective of improving utilisation of irrigation potential and optimising agricultural production and productivity from the irrigated areas by integrating all functions related to irrigated agriculture. This programme is being implemented in the select commands by the State Governments.

43. In 1974-75, there were only 60 irrigation projects covered under the programme with a Culturable Command Area (CCA) of 15 M.Ha. and by the end of March 1999 , there were 227 such projects covering CCA of 21.95 M.Ha. spread over 23 States and 2 Union Territories .

Physical Performance

44. The physical achievements in respect of core components under the programme are given in table-10.

45. The physical progress has been slow in the case of Warabandi, construction of field drains and levelling. There is a need for coordinated approach and speed up progress for optimum benefits under the programme. Certain modifications in CADP are under consideration.

Plan Outlays & Expenditure

46. The table -11 indicates the outlays and expenditure in the Central Sector and State Sector for command area development programme during the Ninth Plan .

Participatory Irrigation Management:

47. The performance of the irrigation sector has not matched the expectations, be it in terms of pace of development, use of facilities and their impact on productivity of land. A number of problems have been associated with major and medium surface irrigation projects. The ones which deserve mention are inordinate delays in completion and cost escalation, under-utilisation

Table No. 10

(M.Ha.)

	Field Channels	Warabandi	Land Levelling	Field Drains
Achievement till 3/92	12.20	6.12	1.99	0.59
Achievement during 8^{th} Plan (1992-93 to 1996-97)	1.76	2.52	0.11	0.19
Achievement 1997-98	0.32	0.42	0.01	0.03
Achievement during 1998-99	0.32	0.34	0.02	0.06
Achievement 1999-2000	0.14	0.10	0.01	0.01
Cumulative upto March, 2000	14.74	9.50	2.14	0.88

Table No. 11

(Rs. Crore)

Year	Central Sector		State Sector	
	Approved Outlay	Actual/Ant. Expenditure	Approved Outlay	Actual/Ant. Expenditure
9^{th} Plan	860		2032.11	
1997-98	140.00	129.96	371.35	303.43
1998-99	187.00	174.90	348.48	303.60
1999-2000	177.00	165.30	315.39	312.13

of the created irrigation potential, low cost recovery and sustainability of such projects. The under-utilisation of irrigation potential and sustainability of the projects are threatened mainly by virtual non-maintenance of irrigation structures because of meagre funds. The answer to the problem is being found in participatory irrigation management (PIM), particularly at the level of Government of India. During the last two decades, the PIM concept in India has passed through three distinct phases. Starting from around 1975 and for about a decade until 1985, the emphasis was on creating outlet- based water user organisations and later on an equitable distribution of water among the irrigators, maintenance of water conveyance, micro structures and resolution of conflicts amongst the water users. . As a result, the government's strategy for CAD — from the start — included farmer organisations as necessary entity to run the micro-system. During the second phase (1985-90), the emphasis shifted to experimentation with PIM. Therefore, a number of pilot projects were started and developed all over the country. Ministry of Water Resources, Government of India, World Bank and USAID aided and assisted in the establishments of those pilots while Non Governmental Organisations (NGOs) played a catalytic role in mobilising farmers and sustaining the pilots. The third phase starting from early 1990s has seen the emergence and propagation of the idea of hand over/turnover of irrigation systems in case of smaller systems and hand over of management of sub-systems in case of larger systems to the irrigating farmers. The progress achieved so far in PIM is rather slow . The relevant details are given in Annexure 13. The irrigated area transferred to Water Users Associations (WUAs) in India is about 7% as against 45% in Indonesia, 51% in Mexico, 66% in Philippines, 22% in Thailand, 35% in Turkey and 19% in Sri Lanka.

48. A number of studies on PIM were carried out by various research institutes through funding provided by the Government of India and Ford Foundation as well as by other external funding agencies. These studies have shown that the success of PIM depends upon factors listed out below: -

(i) Critical Necessity of Canal Water for comfortable living and even for survival of the farmers.

(ii) The right kind of local leadership is the second most important pre -requisite for the success of WUAs.

(iii) A number of studies indicate that incentives must be built around PIM if the programme has to succeed at least in the initial stage. Amongst other incentives which could be considered are: Giving some concession say 5% to WUAs on timely payment of water charges; , WUAs are provided water on a volumetric basis which comes much cheaper to water calculated on area basis and the freedom to WUAs to decide the crop pattern. Further, the first priority should be given to WUA- managed commands for rehabilitation of the irrigation sub-system to its designed level or at least to a workable operation level.

(iv) Close Involvement of the Irrigation Department (ID) Officials with WUAs

(v) Assistance from NGO or from Others

(vi) Memorandum Of Understanding(MOU) between State Departments and WUAs.

49. There should be a formal instrument in the form of Memorandum of Understanding (MOU) in order explicitly to specify the nature and details of responsibilities as well as functions on the part of the State Irrigation Department/State agency concerned and Water User Associations.

(i) Absence of a Policy Statement

The WUAs can sustain only if they receive continued technical assistance and co-operation from the officials' side until they are self-sufficient. In the initial stage WUAs need assistance for registration, accounting system and development of internal structures which are conducive to high level participation. On the contrary, the irrigation bureaucracy works in a set mindset. The officials think it is not their work and an extra and unnecessary job has been imposed on them. Further, they are also not trained in this respect to appreciate this kind of work. They take up the work under the compulsion of targets. Further, the commitment and priority of higher ups for this kind of work go on changing. Thus, in the absence of a clear-cut policy backed by a commitment to fulfil a time bound action plan, ad hocism is the reigning principle.

(ii) Undue Delay in Completing Preliminary Requirements

The stage of PIM comes after preliminary requirements are fulfilled. These include registration of WUA, joint inspection of the system, identifying operational deficiencies in the system, signing of MOU and hydraulic testing of the system. As found from some case studies in Maharashtra, registration requires as per the Act two months time, but it takes several months, even years.

Once registration is over, the joint inspection is not carried out in time and it gets delayed unnecessarily. Views of representations of WUAs are not incorporated in the joint inspection report on the ground they are non-technical. Estimates of rehabilitatation works in many cases are not shown to the WUA representatives and work costs are inflated. Execution of the work is not done properly particularly of the embankments and masonry structures. Finally, a hydraulic testing which is mandated by the agreement is not done before handing over the system to the WUA.

(iii) Delay in Rehabilitation works

The main obstacle to PIM is the rehabilitation of the minor system, which lags far behind due to non-availability of funds. The WUAs have to often take over the systems even though the rehabilitation work is incomplete.

(iv) Lack of Transparency

One of the biggest impediments in PIM programme is the lack of openness in preparation of estimates and the execution of work.

(v) Training

The scale of training needs to be hiked up at two levels: one at the level of the irrigation bureaucracy and the other of WUAs to cover farmers and WUA functionaries. Formal and informal training should help in capacity building of concerned officers and field staff of the Irrigation Department and of farmers and office bearers of WUA to form and run the WUAs smoothly and profitably.

(vi) Monitoring and Evaluation

In the sphere of minor and medium irrigation projects, which are tightly controlled and regulated in all respects like water allotment, distribution, fee collection and cropping pattern by departmental procedures, any steps towards PIM are fraught with all kinds of hurdles. It should, therefore, be necessary that the progress is closely monitored and impact duly evaluated.

Steps to Promote PIM:

50. In 1997 the Government of Andhra Pradesh enacted an A.P. Farmers' Management of Irrigation System Act under which election to more than ten thousand WUAs has already been held. The State Government has been providing technical and financial help to these associations. It has decided to extend the implementation of PIM to all commands in a move designed to increase efficiency of irrigation , expand the irrigated area, raise agricultural productivity and step up production in the irrigated commands. In Bihar, the State Government announced an Irrigation Policy in 1993 which provides for farmers organisations to take over management of irrigation system. Government of Goa has also amended its CAD Act to provide for the establishment of WUAs. Government of Gujarat has taken up I3 pilot projects to study the modalities of implementation of PIM; it has also issued instructions to accord priority to cases of construction and rehabilitation where farmers are ready to form Associations and share part of the costs. The Government of Haryana has agreed to implement PIM in the Water Resources Consolidation Project. In Kerala PIM has been implemented in projects under CADP. A high level group under the Chairmanship of Chief Secretary was constituted by the Himachal Pradesh Government for effective implementation of PIM. In Karnataka, PIM is being implemented in five CADs. The Government of Orissa has initiated PIM in the projects taken up for modernisation under Water Resources Consolidation Projects. In similar measures, the Government of Madhya Pradesh passed the MP Sinchai Prahandhan Main Krishikon Ki Bhagidari Act 1999 while the State of Tamil Nadu brought a Bill in the Legislative Assembly called Tamil Nadu Farmers Management of Irrigation System Bill, 1999.

51. The Union Government has taken several initiatives for expanding the PIM. These, inter-alia, include a National Conference on PIM which adopted a plan of action envisaging conferences at State level for creation of awareness and understanding of issues, initiation of measures for legal changes necessary to implement PIM, preparation of manuals, training of farmers/officials etc. As a follow-up, State/Regional-level conferences were held. Training programmes are conducted on PIM at the National level for officers and at State level for officers and farmers. Work on the preparation of manuals for PIM in regional languages has been initiated. The Ministry has requested State Governments to set up a high level group under Chief Secretary to prepare policy guidelines for implementing the PIM. The Governments of Gujarat , Himachal Pradesh, Karnataka, Kerala, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh have already set up such groups.

52. The Indian Network on PIM (India NPIM) has been set up as a registered society, with the objective of promoting PIM through dissemination of ideas and information, initiating policy dialogue on PIM, organising training, creating data base and a library of literature on the subject and publishing literature including a newsletter.

Evaluation of CAD Programme

53. To evalute system performance to cover water availability , water delivery and water use and project infrastructure, the Ministry of Water Resources carried out a comprehensive study of impact of CAD activities on 10 projects in 1997. The main findings of these studies are as under:

Construction of Field Channel

- The quality of construction of field channels was found to be generally good but the progress has been found to be slow.
- The major impediments in speedy construction were short period of survey and construction and inadequate funding and attention by State Governments.
- At the current average rate of execution it may take another 21 years to complete the balance work of construction for projects included under the programme.

Construction of Field Drains

- Field drains are being constructed for draining excess water from the fields.
- Construction of field drains till the initial part of Seventh Plan was helped by financial institutions and thereafter the Centre and States provided for 50% grant and 50% loan, with equal share to each. was made equally by Centre and States was made.
- During the Eighth Plan, a 100% grant was made admissible on matching basis to States.
- Maharashtra and Uttar Pradesh have done good work under this activity

4

Construction of Land Levelling and Shaping

- Major progress has been made in Andhra Pradesh, Gujarat, Karnataka, Maharashtra and Rajasthan. In Chambal, Kota(Rajasthan) , this activity has been taken up as a part of on-farm development works with good results.
- Since the need for taking up this activity is based on certain parameters such as land slope, soil depth, reliability in availability of irrigation water and cost of land levelling , this activity may be kept at a low key.

Realignment of Field Boundaries and Consolidation of holdings:

- These activities considerably improve the effectiveness of OFD works and they are doing well in Chambal project, Rajasthan, and in the projects of Orissa. In other States this has not picked up due to lack of completed land records and for other reasons.
- The entire process of realignment of field boundaries and consolidation of holdings and land levelling should be taken up as a single package.

Enforcement of Warabandi

- It has helped in equitable distribution of water among farmers and in improving utilisation of irrigation potential as well as agricultural productivity.

Extension Services Support

- Irrigation facilities have triggered interest and need to switch over to more remunerative, high value crops in the irrigated commands.
- To help farmers in this area, Extension Service Support has been considered very important.

Selection and Introduction of Suitable Cropping Pattern

- Suitable cropping pattern and improved varieties of crops having better water efficiency have been introduced in many irrigation projects replacing non-remunerative crops.
- In some projects, high water use crops like paddy, sugarcane have been introduced in head reaches, and these create the problem of waterlogging on one hand and deprive tail- enders of water on the other hand.

Conjunctive use of Surface and Ground Water

- Ground water development works out to 55% on area basis (32% on volumetric basis) compared to the total irrigation potential created till 1993 (35.4 m.ha.).
- Major constraints for slow pace of ground water development includes small and fragmented holdings, poor economic status of the farmers, cumbersome institutional financial support and poor supply of electricity and diesel to operate pumps and perceived inadequate subsidy to farmers.

Modernisation, Maintenance and Efficient Operation of the Irrigation System Upto One Cusec Outlet

- To ensure the reliability of water supply at the outlet at a predetermined time and space proper upkeep and operation of the system has been recognised as essential.
- For achieving efficiency in irrigation, emphasis have to be given on maintenance of the system.

Bridging the Gap between irrigation potential creation and utilisation

- Utilisation of Irrigation potential increased from 76.5% to 80.2% in the irrigated commands from 1974-75 to 1994-95.

- The improvement in the percentage utilisation has been better where field channels have been constructed .

Increase in Agriculture productivity and production

- Out of the data available for 34 projects (15 crops), it has been reported that the productivity increased from 2% to 5% per annum. for 29 project (13 crops) of 3 years and above,

Increase in income of farmers

- On account of various sizes of holdings, cropping pattern being followed and irrigation intensity being achieved, it has been found difficult to find out the exact increase in the income of farmers.

Increase in the irrigation intensity

- The data analysed during the study of 4 projects reveals that irrigation intensity has increased considerably.

Overall Impact of the CADP in relation to defined Objectives of the Programme

- It has been inferred that there has been an impact of CADP implementation on the achievement of the programme objectives.

FLOOD CONTROL

Flood Management

54. The extent of country's flood prone area has been assessed by the Rashtriya Barh Ayog, at 40 m.ha out of a geographical area of 328 M. Ha.. About 32 m.ha of flood prone areas can be provided with a reasonable degree of flood protection by various measures. A National Programme of Flood Management was launched in 1954. It was estimated that an area of 14.37 m.ha. was covered at the beginning of Eighth Plan through various flood management measures. During the Eighth Plan an additional area of 1.82 m.ha was estimated to have benefited. against a (revised) target of 1.36 m.ha. At the end of Eighth Plan, then, a total area of 19.2 m.ha. (including 3 M.ha. before 1954) was provided with reasonable flood protection — about 59.4% of the total area protectable in the country.

55. The table -12 indicates outlays and expenditure in flood control programmes during the Ninth Plan .

Flood Forecasting and Warning and Dissemination of Forecasts

56. Flood forecasting and prior warning to flood prone areas are among the most important and cost-effective measures for flood management. The Central Water Commission has set up 157 flood forecasting stations, covering 62 river basins in the country. The forecasting network needs to be extended to the remaining flood-prone rivers, ensuring close coordination and effective participation of India Meteorology Department (IMD), National Remote Sensing Agency (NRSA) and Indian Space Research Organisation (ISRO). Also, existing arrangements need to be strengthened to reach out the forecasts to the people in advance of an impending calamity. The flood forecasts are normally issued 24 hours to 48 hours in advance so as to give sufficient time to the concerned departmental authorities for dissemination of information, and providing relief and rescue measures to people, as well as for protecting important engineering works/structures. But much more is required to be done to improve the hydro meteorological networks, automation in data communication, accurate forewarnings and instant dissemination of forewarnings, and modernisation of the forecasting system for automatic data acquisition and transmission through VHF and satellite. A flood forecasting model MIKE II has been developed for water level forecasting and flood management technique on a real-time basis and the model is in operation in Damodar Catchment covering the system reservoirs Yamuna and Upper and Lower Godavari Basins. The experience gathered from these works would be helpful for similar application in other basins.

Table NO. 12

(Rs. Crores)

Year	Central Sector		State Sector	
	Approved Outlay	Actual/Ant. Expenditure	Approved Outlay	Actual/Ant. Expenditure
9th Plan	716.13		2212.12	
1997-98	86.15	67.17	363.86	351.87
1998-99	91.75	74.57	639.94	570.58
1999-2000	81.79	83.48	662.36	559.03

Flood Plain Zoning

57. Keeping in view the need for adopting non structural measures like regulation of economic and human activities in the flood plains, a model bill was circulated in 1975 to all the States for its enactment. So far, only the Government of Manipur has enacted such a law.

River Morphological Studies

58. An Atlas of Eastern Rivers for taking up Morphological studies is being prepared by Central Water Commission since 1992. Morphological studies of Brahmaputra and Barak rivers have been completed and such studies are in progress in the river Ganga (from Allahabad to its confluence of Ghagra) and in rivers Krishna and Narmada.

Centrally Sponsored Schemes

59. The following Central Sector/Centrally Sponsored Schemes for mitigating flood/erosion problems in the country are under formulation.

(a) Pagladiya Dam Project in Assam

(b) Flood Control in Brahmaputra-Barak Valley

(c) Critical Anti-Erosion waters in the Ganga basin states including maintenance of flood protection works on Kosi and Gandak rivers in Bihar.

National Water Policy

60. A National Water Policy was adopted by National Water Resources Council of India in 1987 . Since then, a number of problems and challenges have emerged in the development and management of the Water Resources sector . The National Agenda for Governance provides for adoption of a National Water Policy for effective and prompt settlement of disputes and their time bound implementation.

61. The existing Water Policy needs to be revised in the light of problems and emerging challenges and also keeping in view the experiences of around last ten years of its implementation. Accordingly the National Water Board, at its meeting held on 29.10.98, considered the proposals for changes in the policy and finalised the draft National Water Policy, 1998 which would be placed before the National Water Resources Council for its consideration and adoption.

Water Pricing

62. According to the **National Water Policy (1987)**, water rate should be such as to convey its scarcity value to the users and motivate them in favour of efficient water uses, besides, being adequate to cover annual maintenance and operation charges and recover a part of the fixed cost. Agricultural productivity per unit of water needs to be progressively increased in order to be able to compete with other higher value uses of water.

63. The Planning Commission had set up a Water Pricing Committee popularly known as Vaidyanathan Committee . Subsequently a Group of Officials was constituted by the Commission to consider the recommendations made by the above Committee. This Group unanimously recommended that full O&M (operation and maintenance)cost should be recovered in a phased manner i.e. over a 5- year period starting from 1995-96 taking into account the inflation also. Subsequently, individual States might review the status to decide on appropriate action to enhance the water rates to cover 1% of the capital cost also. In addition , the recommendations also included the setting up of Irrigation and Water Pricing Boards by all the States and a mandatory revision of water rates — at least every 5 years — with an opportunity for users to present their views. Further, the Group also recommended the formation of Water Users Associations and the transfer of the maintenance and management of irrigation system to them so that each system may manage its own finances both for O&M and eventually for expansion/improvement of facilities. During Ninth Plan, all States would need to to implement the recommendations in a first phase of implementing the Water Pricing Committee's Report.

64. Most States at present have very low irrigation water rates at substantially varying levels and some of them have not revised these for the last two to three decades. Most of the North-Eastern States (except Assam and Manipur) do not even charge any irrigation water rate. Maharashtra is the only State where the irrigation water rates are announced for a 5-years period at a time with a provision for 10% annual hike so as to cover the full O&M cost as well as interest payable on the public deposits raised through irrigation bonds. Also, State Governments of Andhra Pradesh, Madhya Pradesh, Rajasthan , Haryana and Orissa revised the water rates recently.

65. During the meetings of the Working Group to discuss the Annual Plan 1999-2000 and 2000-2001 the State governments have been requested to revise the water rates at least to a level adequate to cover the O&M expenses. They have also been advised to cut down the establishment cost and to improve the collection efficiency of the Water rates.

Integrated Planning of River Basin Systems and Management

66. River basin development initially denoted primarily construction of smaller projects and development of water resources for immediate needs and objectives. In course of time, however, the concept came to be recognized to mean an integrated development through construction of large projects involving coordinated and harmonious development of various component system units in relation to all reasonable possibilities in a river basin.. Lately , the concept has changed to the comprehensive development of the river basin for general welfare of the people, aiming at development of total water resources alongside development of land, minerals industry and trade. Concern is also being expressed for environmental quality and social betterment. Water resources river basin systems are elaborate and complex systems and formed through combinations of a large number of system units; they include storage, diversion, regulation, and conveyance and specific facilities. All these serve a variety of purposes which may be complementary or competitive and meet the water demands of the people for their general welfare. As water resources are limited, these are to be conserved and allocated among a variety of uses to meet the projected demands in the best possible manner. Emphasis may be placed on economic use and conservation of resources such that maximum benefit is derived from each unit of water resource. Modern techniques of system approach and use of computer in planning and management of river basin development need to be applied on an increasing scale for the purpose. Management planning studies are needed at the planning stage and operation stage in order to obtain fuller benefits from them. These studies may have a number of components such as appraisal of water resources, projections of water demands, integration of supply and demand, planning of crop patterns, integrated operation of the complex channel systems and overall river basin system development.

67. For the planned development of river basins as a whole, a River Boards Act was passed by Parliament in 1956 for preparation of water resources development schemes and for advising the States on the regulation and other aspects. River Basin Development and Management involves issues of multi-disciplinary nature. Successful water management requires legislation and regulation to prevent human activity from degrading the natural heritage. Any degradation or unauthorised activity has to be the subjected to fines and fees payable by the users and the polluters. The entire basin has to be integrated in the management functions including the whole of watershed, the banks, the valley and the basin, each being dependent upon the other. For such an integration to be successful, people's participation in the whole process is very crucial. The Central Government had constituted a High Power Commission in September 1996 to formulate an Integrated Water Resources Development Plan, taking a holistic view of the overall water resources in the country and how to maximise the availability and its utilisation including consideration of inter-basin transfers. The report of the Commission has been submitted and its recommendations are being processed by the Ministry of Water Resources (MOWR).

Rehabilitation and Resettlement

68. Systematic irrigation development and construction of big dams in the country have caused land to be submerged and led to large-scale displacement of people from their original habitat. Almost half of the displaced persons are tribals who have least resources, experience, and temperament to negotiate their lives after displacement. Due to the submergence of areas the project-affected persons (PAPs) face numerous problems.

69. There are no reliable statistics with break-up of social and economic classification of the people displaced by each of large projects since Independence. Many researchers place their estimates at between 10 million and 25 million. The implementation of R&R programmes for the Project Affected Families (PAF) have thrown up the following important issues which need consideration.

i) Prior Consultation and information to Project Affected Persons
ii) Need for National Rehabilitation Policy
iii) Provision for Land from Command area to those who bore land in the catchment area.
iv) Availability of basic infrastructural facilities like health, education etc at relocation sites.
v) Policies to take into account specific problems of most vulnerable sections of the displaced including tribals.

70. The Central Government is in the process of formulating a new national R&R policy. The draft NRR 1998 was prepared and widely debated by the Government. The R&R policy will seek to minimise the trauma of displacement on account of compulsory acquisition of land, and establish statutory minimum standards for packages and benefits to ensure that displaced persons are better off as a result of the project.

71. There is also a need for comprehensive, initial benchmark studies to establish the numbers and categories of those displaced. These studies should also document the pre-project living standards of the various categories of displaced persons,so as to be able to monitor and assess the success of R&R against the guiding

premise that the affected populations should be better off as a result of the project.

72. The project designers should try for rehabilitation of displaced persons in the command area and the beneficiaries must make sacrifice by sparing part of their lands for this purpose. The process of decision-making on these projects also needs to be made more open so that the public at large and, in particular, those directly affected can have access to more information about the assumptions and calculations on which a project is judged by the authorities to be technically and economically viable. This will help the people satisfy themselves that sufficient safeguards have been built into the project to take reasonable care of those who are affected by the projects and also of the potential adverse ecological consequences flowing from the construction of the project and its operation. The people will also get an opportunity to place their objections and concerns before the concerned authorities along with concrete suggestions for alternative, cheaper/safer ways of achieving objectives which the project is supposed to serve.

Impact of Siltation on Life of Large Reservoirs

73. Uncontrolled deforestation, forest-fires, over-grazing, improper methods of tillage, unwise agricultural practices and other activities are responsible for accelerated soil erosion. It has been estimated that about 6 billion tonnes of soil are eroded every year from about 80 million ha. of cultivable lands, thereby causing a loss of 8.4 million tons of nutrients. If this nutrient loss is to be compensated by application of chemical fertilizers; a huge investment would be needed. Further, according to some studies, it is estimated that 2.2 billion tonnes of sediments is transported each year by the Ganga-Brahmaputra river systems into the Bay of Bengal. Central Water Commission (1991) found from an analysis of capacity survey data of 46 reservoirs in India that there was a wide variability in sedimentation rate of those reservoirs. The sedimentation rate is affected by multiple factors like hydrometeorology, physiography, climate etc. Considering these factors the whole country has been classified into seven regions. The sedimentation rates in reservoirs region-wise are given in Table-13.

74. During the last four decades India has constructed several major/medium river valley projects involving construction of dams and creation of reservoirs for flood controls, irrigation and hydropower. As the storages are subject to silting, sedimentation of reservoirs is a matter of vital concern to all water resources development projects. Silting not only occurs in the dead storage but also encroaches into the live storage capacity which impairs the intended benefits from the reservoirs. Therefore, the problem of sedimentation needs careful consideration and there is an urgent need to review the status of reservoir sedimentation.

Review of Reservoir Performance and Economic Life

75. The dead storage provided in reservoir capacity is allowed for sedimentation. Actually all the sediment load does not go in dead storage. It encroaches upon live storage also. The encroachment and its distribution depend upon many factors such as reservoir operation, valley characteristics, capacity inflow ratio and sediment content in the inflow etc. For a reservoir, its *Useful Life* is reckoned till its capacity is reduced to about 20% of the designed capacity. The rate of silting in some select reservoirs in the country and its effect in term of loss of storage capacity is shown in Annexure 14.

76. When sedimentation encroaches on live storage, it gradually reduces the capacity and tends in course of time to interfere with the operation and makes it uneconomic. It is, therefore, necessary to make an economic review of each project during the years of operation and particularly in those projects where sedimentation rate has proved much higher than what was estimated earlier at the time of project design. Such a

Table No. 13
Region wise Sedimentation Rate in Reservoirs

Sl. No	Region	Sedimentation rate Ha m/100 km2/year
1.	Himalayan region (Indus, Ganga, Brahmputrta region)	Varies from 5.658 to 27.85
2.	Indo Gangetic Plateau	Varies from 0.3 to 16.3
3.	East flowing rivers excluding Ganga upto Godavari	6.08 in case of Hirakud Reservoir
4.	Deccan Peninsular east-flowing rivers Including Godavari	Varies from 0.15 – 12.16
5.	West flowing rivers upto Narmada	–
6.	Narmada Tapti Basin	Varies from 3.64 – 7.16
7.	West flowing rivers	Varies from 0.96 – 25.4

review is necessary to ascertain the period when the project may prove economically inefficient. Further, such studies are also required for ascertaining the need for change in the system operation and in the interest of future overall project planning for the country. Also, for better operation and management of existing reservoirs, it is imperative to conduct hydrographic surveys at regular intervals. At present, such capacity surveys of reservoirs are generally being conducted using conventional methods and equipment. There is need to introduce high technology i.e. HYDAC system, remote sensing in conducting these surveys to save time and obtain more reliable periodic data. These data will be useful in realistic assessment of sediment load and, thus, of the available live reservoir capacity besides helping better sedimentation planning of future reservoirs. The project authorities should earmark adequate funds for this purpose as a part of operation and maintenance of reservoirs and should furnish the survey data regularly to the Central Water Commission for compilation, and analysis and to bring out a compendium every five years or so.

Private Sector Participation

77. Some states like Maharashtra, Madhya Pradesh and Andhra Pradesh have initiated action for privatisation of irrigation projects. The proposed privatisation is on the basis of Build-Own-Operate (BOO) mode, , or Build-Own-Operate-Transfer (BOOT) or Build-Own-Lease (BOL) basis. In the case of projects on BOO basis, the Irrigation Department may buy water in bulk from the agency at mutually agreed price for distribution to the farmers. Apart from this, funds have been raised by public bonds from private market by Mahrashtra Krishna Valley Development Corporation (MKVDC) of Krishna Valley Projects, Sardar Sarovar Narmada Nirman Limited (SSNNL) of Sardar Sarovar Projects in Gujarat and Jal Bhagya Nigam for Upper Krishna Projects, Karnataka.

78. A High Level Committee was constituted in 1995 to examine the feasibility and scope of private sector participation in irrigation and multi-purpose projects. The Committee in its report submitted in December 1995, concluded that private sector participation is feasible in respect of all irrigation (surface and ground water) and multi-purpose projects but it would be desirable to introduce this on a pilot basis. The recommendations of the Committee have been sent to the States for follow- up action.

Tank Irrigation in India

79. Construction of small and big tanks for irrigation has been taken up in the country since ancient times. Tanks are more useful in storing the rain water and conserving it for further use. In Drought Prone Areas, their utility and necessity is manifold. They also help in preserving the environment and ecology of the region. Under the present policy of the Government a big thrust is to be given to this programme.

80. As per Minor Irrigation Census (1987), there were about 5 lakh tanks in various States. The States of Andhra Pradesh, Karnataka, Tamil Nadu and Maharashtra had a greater density. While in 1962-63, the area under tank irrigation reached an all time high of 47.8 lakh ha., it came down to 30.71 lakh ha. in 1985-86 in spite of thousands of new tanks added during this period. It clearly indicates that the up-keep of the tanks has been neglected and their capacity due to siltation. Several tanks have completely dried up. Fore shore areas have been encroached by urbanization. In the last 25 years, about 17 lakh hectare of net area has been lost under tank irrigation.

81. Next to lift irrigation through wells which are, of course, individually owned, tank irrigation offers the simple source that could be easily and economically maintained by the Government jointly with the beneficiaries for substantial benefits to the agricultural sector. Also the tank irrigation system is of special significance in the rural sector as the poor in large numbers are dependent on it.

82. Partly due to ageing over centuries and partly to inadequate and indifferent maintenance, the tank systems have gone into bad repair and require special attention. Common features which impair efficient irrigation may be listed as follows.

(a) Inadequate flows into the tank
(b) Weak bunds susceptible for frequent breaches
(c) Leaky sluices with poor controlling devices
(d) Silting up of the tank bed over a long time
(e) Poorly maintained irrigation channels and
(f) Absence of on-farm works below the outlets.

83. There is thus a lot left to be desired not only in the up- keep and maintenance of physical tank system but also in the water regulation. Though farmers have taken up high yielding varieties and other modern techniques of farming, they are still poorly informed in respect of water use and water regulation and have not paid much attention to this.. This is perhaps because it requires joint management, part of the system being under the care of the Governmental agencies and part under their own care. Rehabilitation and modemisation of tanks is to be given greater importance. The programme deserves top priority to regain the lost irrigation potential of 17 lakh hectare in the shortest possible time,. It needs to be planned on watershed basis taking into account the comparative techno-economic feasibility of renovating an existing tank vis-à-vis construction of supplementary tanks upstream and downstream. Modernisation of the existing tank could go a long way to utilise the already developed irrigation potential with greater efficiency.

Assistance from the European Economic Community

S. N.	Name of the Project	State	Date of Commencement	Date of Completion	Amount of Assistance (in ECU Million.)	Utilisation of Assistance (upto 31.12.98)
1	Tank Irrigation System (Ph. II) in Tamilnadu	Tamil Nadu	24.07.89	31.12.99	24.5	19.787
2	Kerala Minor Irrigation Project	Kerala	21.05.92	31.12.2000	11.8	2.770
3	Sidmukh and Nohar Project	Rajasthan	07.06.93	31.12.2000	45.0	32.740
4	Orissa Minor Irrigation Project	Orissa	03.07.95	31.12.2004	10.70	0.465
5	Tank Rehabilitation Project Pondicherry	Pondicherry	21.02.97	21.02.2003	6.650	—
6	Saline Land Reclamation Project, Phase-II	Maharashtra	02.06.97	31.12.2005	14.3	—

United Nations Development Programme Assistance

S. No.	Name of the Project	State	Amount of Assistance (in US$ M.)	Utilisation of Assistance (upto 31.12.98)
1.	Automatic Operation of Irrigation Canal System	CWPRS, Pune	0.691	—

Bilateral Assistance

Sl. No	Name of the Project	State	Date of Commencement	Date of Completion	Amount of Assistance (in Million Yen US$M.)	Utilisation of Assistance (upto 31.12.98
	Japan					
1.	Modernisation of Kurnool Cuddapah Canal	Andhra Pradesh	11.01.96	26.03.2003	16049	90.015
2.	Rajghat Canal Major Irrigation Project	Madhya Pradesh	25.02.97	31.03.2003	13222	438.700
3.	Rengali Irrigation Project	Orissa	12.12.97	05.02.2003	7760	644.322
	France					
4.	Hydroplus Fusegates on 8 Dams in Gujarat	Gujarat	10.12.98	10.12.2000	FF 17.85 M	—
5.	Pilot Project for ozonisation and nitrification plant for Drinking Water	Delhi	31.12.92	31.12.98	FF 9.73	FF 8.76
6.	Ground Water exploration project in North-West of Imphal, Manipur	Manipur	26.06.97	30.06.2002	FF 4.53	—
	Netherlands					
7.	Community Irrigation Project	Kerala	15.12.93	30.06.2000	DFL 11.02 M	DFL 1.39 M
8.	Andhra Pradesh Ground Water Project (APWELL)	Andhra Pradesh	14.11.94	14.11.99	DFL 37.00 M	DFL 1.023 M
9.	Bundelkhan Integrated Water Resources Management Project	Uttar Pradesh	12.06.96	31.05.99	DFL 13.388 M	DFL 1.352 M
	Australian Assistance					
10.	Exploitation of Ground Water Project (Trench-II)	Orissa	31.07.92	31.07.98	US$ 13.089 M	US$ 7.939 M
	Canadian Assistance					
11.	Rajasthan Agriculture and Drainage Research Project (RAJAD)	Rajasthan	13.03.90	31.12.99	C$ 60.76 M	C$ 7.887 M
	Germany					
12.	Rajasthan Minor Irrigation Project	Rajasthan	29.04.87	31.12.98	DM 2.70 M	DM 1.635 M
13.	Orissa Lift Irrigation Project	Orissa	19.12.93	31.12.2000	DM 55.00 M	DM 31.120 M

Ninth Five Year Plan 1997-02

Annexure I

(Rs. in crore)

S. No.	Name of States & U.Ts.	AGREED OUTLAY				
		Major & Medium	Minor	CAD	Flood Control	Total
1	2	3	4	5	6	7
1	Andhra Pradesh	5027.16	775.73	76.50	127.41	6006.80
2	Arunachal Pradesh	2.30	202.48	5.65	69.52	279.95
3	Assam	135.12	429.99	25.07	120.24	710.42
4	Bihar	1450.00	725.00	125.00	400.00	2700.00
5	Goa	237.02	27.31	7.31	6.46	278.10
6	Gujarat	7358.00	963.55	50.00	10.00	8381.55
7	Haryana	1372.43	172.13	68.22	60.41	1673.19
8	Himachal Pradesh	35.00	196.55	7.30	20.00	258.85
9	Jammu & Kashmir $	173.85	148.20	22.32	80.75	425.12
10	Karnataka	5500.00	500.00	120.00	50.00	6170.00
11	Kerala	650.00	250.00	40.00	88.00	1028.00
12	Madhya Pradesh	1915.76	782.90	18.69	4.67	2722.02
13	Maharashtra	8969.08	1568.56	388.46	2.70	10928.80
14	Manipur	222.00	44.00	18.60	36.00	320.60
15	Meghalaya	15.00	60.00	5.00	18.00	98.00
16	Mizoram	0.40	17.52	0.19	0.00	18.11
17	Nagaland	9.85	40.28	1.50	5.37	57.00
18	Orissa	3084.76	267.32	16.50	20.00	3388.58
19	Punjab	238.25	252.82	384.47	409.70	1285.24
20	Rajasthan	1855.54	196.30	422.86	51.16	2525.86
21	Sikkim	0.00	10.00	1.00	30.00	41.00
22	Tamil Nadu	1000.00	357.65	90.00	0.00	1447.65
23	Tripura	60.55	105.36	0.10	28.00	194.01
24	Uttar Pradesh	2600.12	490.00	120.00	80.00	3290.12
25	West Bengal	710.93	347.86	16.33	328.45	1403.57
Total States		**42623.12**	**8931.51**	**2031.07**	**2046.84**	**55632.54**
26	A & N Islands	0.00	5.77	0.00	4.23	10.00
27	Chandigarh	0.00	1.20	0.00	0.00	1.20
28	D & N Haveli	4.50	7.00	0.74	0.00	12.24
29	Daman & Diu	1.60	1.02	0.30	2.19	5.11
30	Delhi	0.00	13.03	0.00	120.00	133.03
31	Lakshadweep	0.00	0.00	0.00	17.36	17.36
32	Pondicherry	0.00	17.50	0.00	21.50	39.00
	Total U.Ts.	**6.10**	**45.52**	**1.04**	**165.28**	**217.94**
	Total States & Uts.	**42629.22**	**8977.03**	**2032.11**	**2212.12**	**55850.48**
	***Central Sector**	**330.12***	**385.00**	**860.00**	**716.13#**	**2291.25**
	Grand Total	**42959.34**	**9362.03**	**2892.11**	**2928.25**	**58141.73**

* The Fig.Of Rs330.12crore under the Major & Medium component includes a total of Rs. 37.79 Crore for R&D and Rs.8.75 Crore for Sectt.& Eco.Services

\# Fig Rs 716.13 includes Rs.110.00 crore for Farakka . Barrage Project under Transport Sector.

$ The Outlays indicated are based on Ninth Plan Outlay of Rs. 9500 Crore.

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Annexure 2

Actual Expenditure in respect of Major & Medium Irrigation, Minor Irrgn., CAD & Flood Control for the year 1997-98

(Rs. in crore)

Sl. No.	Name of States & U.Ts.	Major & Medium	Minor Irrigation	CAD	Flood Control	Total
1	2	3	4	5	6	7
1	Andhra Pradesh	659.70	111.04	7.16	17.85	795.75
2	Arunachal Pradesh	0.36	16.73	0.98	3.76	21.83
3	Assam	30.34	89.70	3.19	16.24	139.47
4	Bihar	240.67	41.15	11.30	42.34	335.46
5	Goa	23.49	3.51	1.20	0.94	29.14
6	Gujarat	1212.95	148.16	11.32	4.00	1376.43
7	Haryana	214.75	30.00	12.14	20.71	277.60
8	Himachal Pradesh	10.12	41.35	1.09	3.65	56.21
9	Jammu & Kashmir	21.41	26.07	3.53	17.61	68.62
10	Karnataka	1308.29	70.05	24.11	10.31	1412.76
11	Kerala	153.58	41.67	11.54	22.13	228.92
12	Madhya Pradesh	375.47	139.62	3.84	0.72	519.65
13	Maharashtra	1606.24	348.69	53.14	0.98	2009.05
14	Manipur	34.60	6.41	1.50	6.84	49.35
15	Meghalaya	1.50	6.06	0.25	1.50	9.31
16	Mizoram	0.04	1.96	0.04	0.00	2.04
17	Nagaland	0.86	2.42	0.20	0.20	3.68
18	Orissa	519.98	81.39	4.00	18.31	623.68
19	Punjab	51.15	26.82	43.77	51.05	172.79
20	Rajasthan	386.95	34.58	58.99	12.34	492.86
21	Sikkim	0.00	2.16	0.00	1.09	3.25
22	Tamil Nadu	87.96	42.66	16.73	0.00	147.35
23	Tripura	6.33	5.84	0.02	4.64	16.83
24	Uttar Pradesh	473.87	99.34	30.58	14.40	618.19
25	West Bengal	102.04	30.39	2.60	62.32	197.35
	Total States	**7522.65**	**1447.77**	**303.22**	**333.93**	**9607.57**
26	A & N Island	0.00	2.41	0.00	0.00	2.41
27	Chandigarh	0.00	0.22	0.00	0.00	0.22
28	D & N Haveli	0.31	1.60	0.21	0.00	2.12
29	Daman & Diu	0.20	0.12	0.00	0.40	0.72
30	Delhi	0.00	0.84	0.00	10.02	10.86
31	Lakshadweep	0.00	0.00	0.00	3.69	3.69
32	Pondicherry	0.00	3.63	0.00	3.83	7.46
	Total U.Ts.	**0.51**	**8.82**	**0.21**	**17.94**	**27.48**
	Total States & Uts.	**7523.16**	**1456.59**	**303.43**	**351.87**	**9635.05**
	Central Sector	**36.72**	**42.84**	**129.26**	**67.17**	**275.99**
	Grand Total	**7559.88**	**1499.43**	**432.69**	**419.04**	**9911.04**

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Annexure-3

Anticipated Expenditure in respect of Major and Medium Irrigation, Minor Irrgn., CAD & Flood Control for the year 1998-99

(Rs. in crore)

Sl. No.	Name of States & U.Ts.	Major & Medium	Minor Irrigation	CAD	Flood Control	Total
1	2	3	4	5	6	7
1	Andhra Pradesh	790.70	148.11	13.00	49.00	1000.81
2	Arunachal Pradesh	0.31	12.87	0.78	4.16	18.12
3	Assam	45.91	68.61	3.19	20.27	137.98
4	Bihar	121.00	27	12.00	43.00	203.00
5	Goa	20.54	6.25	1.82	1.16	29.77
6	Gujarat	1347.32	251.82	13.19	5.00	1617.33
7	Haryana	342.79	58.75	12.50	20.00	434.04
8	Himachal Pradesh	12.25	47.67	0 30	5.88	66.10
9	Jammu & Kashmir	73.52	39.31	4.11	26.12	143.06
10	Karnataka	1354.27	86.28	11.46	7.00	1459.01
11	Kerala	140.00	39.6	12.00	24.00	215.60
12	Madhya Pradesh	425.85	209.24	4.49	1.00	640.58
13	Maharashtra	2627.99	366.26	72.40	1.16	3067.81
14	Manipur	36.65	9.5	11.05	5.10	62.30
15	Meghalaya	4.00	6.45	0.30	2.00	12.75
16	Mizoram	0.03	4.89	0.03	0.00	4.95
17	Nagaland	0.04	4 27	0.10	0.09	4.50
18	Orissa	602.81	92.96	5.00	15.00	715.77
19	Punjab	58.62	38.04	17.20	184.84	298.70
20	Rajasthan	436.74	49.4	69.18	4.53	559.85
21	Sikkim	0.00	0.85	2.84	0.02	3.71
22	Tamil Nadu	294.96	72.89	21.88	0.80	390.53
23	Tripura	7.58	8.93	0.02	3.24	19 77
24	Uttar Pradesh	470.00	68.15	14.08	45.90	598.13
25	West Bengal	58.12	18.65	0.61	82.22	159.60
	Total States	**9272.00**	**1736.75**	**303.53**	**551.49**	**11863.77**
	Union Territories					
26	A & N Island	0.00	2.75	0.00	0.00	2.75
27	Chandigarh	0.00	0.22	0.00	0.00	0.22
28	D & N Haveli	0.78	1.2	0.07	0.00	2.05
29	Daman & Diu	0.34	0.09	0.00	0.28	0.71
30	Delhi	0.00	1.17	0.00	15.81	16.98
31	Lakshadweep	0.00	0	0.00	2.63	2.63
32	Pondicherry	0.00	4.63	0.00	3.00	7.63
	Total U.Ts.	**1.12**	**10.06**	**0.07**	**21.72**	**32.97**
	Total States & Uts.	**9273.12**	**1746.81**	**303.60**	**573.21**	**11896.74**
	Central Sector	**49.03**	**48.29**	**174.90**	**74.57**	**346.79**
	Grand Total	**9322.15**	**1795.10**	**478.50**	**647.78**	**12243.53**

Annexure 4

APPROVED OUTLAY 1999-2000 FOR MAJOR & MEDIUM, MINOR IRRIGATION , CAD & FLOOD CONTROL SECTOR

(Rs. in crore)

Sl. No.	Name of States & U.Ts.	Major & Medium	Minor Irrigation	CAD	Flood Control	Total
1	2	3	4	5	6	7
1	Andhra Pradesh	1051.14	208.63	12	42	1313.77
2	Arunachal Pradesh	0.34	22.14	0.90	4.25	27.63
3	Assam	45.91	65.78	3.19	27.57	142.45
4	Bihar	680.00	64	12.00	110.00	866.00
5	Goa	57.70	4.5	1.00	0.85	64.05
6	Gujarat	1580.00	237.3	10.00	5.00	1832.30
7	Haryana	490.00	60	11.00	20.00	581.00
8	Himachal Pradesh	16.85	54.83	0.35	8.12	80.15
9	Jammu & Kashmir	68.46	45.67	4.11	32.11	150.35
10	Karnataka	1641.09	124.62	14.78	6.89	1787.38
11	Kerala	159.72	46	12.00	24.00	241.72
12	Madhya Pradesh	463.43	181.18	5.05	1.01	650.67
13	Maharashtra	3449.00	378.61	52.78	0.99	3881.38
14	Manipur	60.00	18	1.60	15.30	94.90
15	Meghalaya	6.00	11	1.00	3.00	21.00
16	Mizoram	0.05	6.95	0.05	NIL	7.05
17	Nagaland	4.50				
18	Orissa	520.30	115.43	4.16	12.63	652.52
19	Punjab	124.95	42.23	47.51	105.39	320.08
20	Rajasthan	491.72	86.09	62.11	3.55	643.47
21	Sikkim	0.00	20	0.50	0.02	20.52
22	Tamil Nadu	337.44	41.21	21.87	17.77	418.29
23	Tripura	7.92	65.13	0.02	5.85	78.92
24	Uttar Pradesh	845.00	106.79	30.00	23.53	1005.32
25	West Bengal	126.25	96.58	7.07	165.30	395.20
	Total States	**12227.77**	**2102.67**	**315.05**	**635.13**	**15280.62**
26	A & N Island	0.00	2.5	0.00	0.00	2.50
27	Chandigarh	0.00	0.25	0.00	0.00	0.25
28	D & N Haveli	1.00	1.26	0.24	0.00	2.50
29	Daman & Diu	0.04	0.05	0.10	0.18	0.37
30	Delhi	0.00	1.25	0.00	20.00	21.25
31	Lakshadweep	0.00	0	0.00	3.05	3.05
32	Pondicherry	0.00	9.81	0.00	4.00	13.81
	Total U.Ts.	**1.04**	**15.12**	**0.34**	**27.23**	**43.73**
	Total States & Uts.	**12228.81**	**2117.79**	**315.39**	**662.36**	**15324.35**
	Central Sector	**55.80**	**55.41**	**177.00**	**81.79**	**370.00**
	Grand Total	12284.61	2173.20	492.39	744.15	15694.35

Annexure – 5

List of Ongoing Projects and Spillover Cost

(Rs. Crores)

		Ongoing Projects			Spillover Cost to IX Plan		
Sl. No.	**State**	**Major (Nos.)**	**Medium (Nos.)**	**ERM (No.)**	**Major**	**Medium**	**ERM (No.)**
1.	Andhra Pradesh	12	19	5	6417	145	1431
2.	Assam	4	5	0	224	61	0
3.	Bihar	15	29	4	4578	757	286
4.	Goa	1	1	0	420	38	0
5.	Gujarat	9	13	8	6306	173	1063
6.	Haryana	5	0	5	304	0	1535
7.	Himachal Pradesh	1	2	0	136	1	0
8.	Jammu & Kashmir	1	8	5	28	69	94
9.	Karnataka	14	15	5	6866	524	967
10.	Kerala	7	5	1	1338	617	6
11.	Madhya Pradesh	24	31	4	7894	391	54
12.	Maharashtra	44	85	6	12272	2107	128
13.	Manipur	2	2	4	326	42	27
14.	Meghalaya	0	1	0	0	23	0
15.	Nagaland	0	0	0	0	0	0
16.	Orissa	6	12	2	3741	366	1240
17.	Punjab	0	1	5	142	88	47
18.	Rajasthan	6	6	5	3314	162	274
19.	Tripura	0	3	0	0	125	0
[illegible]	Tamil Nadu	0	2	1	0	7	1120
21.	Uttar Pradesh	17	2	6	5357	15	221
22.	West Bengal	3	17	6	1143	31	649
	Grand Total	**171**	**259**	**72**	**60806**	**5743**	**9142**

4

Annexure-6

List Of Pre-Vth Plan On-Going Irrigation (Major)Projects and funds released under AIBP

Sl. No.		State	Funds released under AIBP 1996-97	1997-98	1998-99	1999-2000 (Ist Installment)
1		**Karnataka**				
		Third Five Year Plan (1961-66)				
	1.	Malaprabha	1.500	12.000	10.000	13.500
		Fourth Five Year Plan (1969-74)				
	2.	Upper Krishna Stage I	57.000	50.000	50.000	100.00
2		**Madhya Pradesh**				
		Fourth Five Year Plan (1969-74)				
	1.	Sindh Phase I	—	—	—	1.000
	2.	Jonk Diversion	—	—	—	1.000
3		**West Bengal**				
		First Five Year Plan(1951-56)				
	1.	Barrage Irrigation Damodar Valley Corporation	-	1.000	0.000	—
		Second Five Year Plan (1956-61)				
	2.	Kangsabati	—	4.000	0.000	6.00
4		**Andhra Pradesh**				
		Second Five Year Plan (1956-61)				
	1.	Nagarjuna Sagar	—	—	9.00	—
		Third Five Year Plan (1961-66)				
	2.	Sriramsagar Stage I	31.50	50.00	25.00	38.00
5		**Maharashtra**				
		Third Five Year Plan (1961-66)				
	1.	Bhima	—	12.500	19.750	12.255
		Fourth Five Year Plan (1969-74)				
	2.	Upper Tapi	—	2.500	0.000	3.800
6		**Bihar**				
		Third Five Year Plan (1961-66)				
		1.Western Kosi Canal	10.00	—	14.635	30.57
7		**Haryana**				
		Third Five Year Plan (1961-66)				
	1.	Gurgoan Canal	2.500	0.000	0.000	—
8		**Goa**				
		Fourth Five Year Plan(1969-74)				
		1 Salauli	—	5.25	—	3.50
9		**Kerala**				
		Third Five Year Plan (1961-66)				
	1.	Kallada	3.750	15.000	0.000	—
10		**Raiasthan**				
		Fourth Five Year Plan (1969-74)				
		Mahi Bajaj Sagar	—	—	—	16.670
11		**Uttar Pradesh**				
		Third Five Year Plan (1961-66)				
	1.	Sarada Sahayak	15.000	10.000	16.000	40.000
12		**Gujarat**				
		Fourth Five Year Plan (1969-74)				
	1	Damanganga	—	5.00	3.25	1.220
	2	Watrak	—	1.00	1.65	0.460
13		**Orissa**				
		Fourth Five Year Plan (1969-74)				
	1.	Rengali Dam	9.900	20.000	50.000	28.300

Annexure-7

CLA RELEASED UNDER A.I.B.P – Major & Medium Projects

State	1996-97	1997-98	1998-99	1999-2000
Andhra Pradesh	35.25	74.00	79.67	65.015
Assam	5.23	12.40	13.95	13.02
Bihar	13.50	14.04	47.83	144.04
Goa	0.00	5.25	0.00	3.50
Gujarat	74.77	196.90	423.82	272.70
Haryana	32.50	12.00	0.00	0.00
Himachal Pradesh	0.00	6.50	5.00	14.555
Jammu & Kashmir	1.30	0.00	0.00	4.68
Karnataka	61.25	90.50	94.50	157.14
Kerala	3.75	15.00	0.00	0.00
Madhya Pradesh	63.25	114.50	90.75	105.845
Maharashtra	14.00	55.00	50.86	49.875
Manipur	4.30	26.00	10.78	20.31
Orissa	48.45	35.00	71.50	81.35
Punjab	67.50	100.00	0.00	42.00
Rajasthan	2.68	42.00	140.05	106.665
Tamil Nadu	20.00	0.00	0.00	0.00
Tripura	3.77	5.10	3.98	6.30
Uttar Pradesh	43.50	78.00	76.50	286.00
West Bengal	5.00	20.00	10.00	25.00
Total	**500.00**	**952.19**	**1119.18**	**1397.895**

4

Minor Irrigation Projects

State	No. of Schemes	Total cost (Rs. in crore)
Orissa	16	8.90
Assam	6	1.52
Manipur	108	1.50
Mizoram	10	1.43
Tripura	626	28.35
Meghalaya	39	2.69
Arunachal Pradesh	339	7.50
Himachal Pradesh	42	6.71
Nagaland	468	2.73
Sikkim	129	1.36
TOTAL	**1783**	**62.69**

Annexure-8

External Assistance
World Bank Assisted Projects

Sl. No.	Name of the Project	State	Date of Commencement	Date of Completion	Amount of Assistance(in US$ M.)	Utilisation of Assistance (upto 31.12.98)
1.	Dam Safety Assurance and Rehabilitation Project	Multi-State	10.06.91	30.09.99	102.973	58.179
2.	Hydrology Project	Multi-State	02.09.95	31.03.2002	142.00	21.545
3.	Haryana Water Resources Consolidation Project	Haryana	06.04.94	31.12.2002	258.00	101.602
4.	Tamil Nadu Water Resources Consolidation Project	Tamil Nadu	19.04.95	31.03.2002	282.9	18.268
5.	Orissa Water Resources Consolidation Project	Orissa	05.01.96	30.09.2002	290.9	91.535
6.	Andhra Pradesh III Irrigation Project	Andhra Pradesh	03.06.97	31.01.2002	325.0	60.252

Annexure-9

Institutional finances for Minor Irrigation development for the year 1995-96, 1996-97 and 1997-98 under schemes refinanced by NABARD

(Rs. In Crores)

Sl.	States/UT s	1995-96		1996-97		1997-98	
		Furnished by State Coop. Banks	Furnished by NABARD	Furnished by State Coop. Banks	Furnished by NABARD	Furnished by State Coop. Banks	Furnished by NABARD
1.	Andhra Pradesh	6239	11764	10082	10326	8178	9325
2.	Assam	–	2	–	–	–	1
3.	Bihar	650	647	1036	1217	777	572
4.	Goa	6	6	11	20	30	30
5.	Gujarat	1100	4070	787	1377	699	1732
6.	Haryana	5294	3125	6485	5043	5698	4756
7.	Himachal Pradesh	175	40	362	55	376	43
8.	J&K	–	8	11	1	–	–
9.	Karnataka	3793	8190	3948	7490	3001	4750
10.	Kerala	1304	3503	1598	2944	1501	1807
11.	Madhya Pradesh	1730	2467	1899	2033	1510	2237
12.	Maharashtra	404	14882	4601	9275	2886	8231
13.	Orissa	106	1509	334	1251	1	1302
14.	Punjab	–	1852	3092	2864	3281	3069
15.	Rajasthan	5435	5383	5689	6105	5153	5534
16.	Tamilnadu	284	4968	305	617	329	901
17.	Uttar Pradesh	20116	16314	18650	14321	14756	3061
18.	West Bengal	617	745	373	573	344	402
19.	Pondicherry	26	57	22	17	37	38
	Total	**47279**	**79532**	**59285**	**65529**	**48557**	**47791**

Annexure-10

Advances by Land Development Banks

(Rs. In lakhs)

Sl. No.	States	Banks of the concern States	1995-96 Under N.P.	1995-96 Under NABARD	1996-97 Under N.P.	1996-97 Under NABARD	1997-98 Under N.P.	1997-98 Under NABARD
1.	A.P.	A.P State Coop. Bank Limited	228	6239	540	10082	195	8178
2.	Bihar	Bihar State Coop. Land Development Bank Ltd.	-	650	Nil	1036	Nil	777
3.	Goa	Goa State Coop. Bank Ltd.	6	6	2	11	-	30
4.	Gujarat	Gujarat State Coop. Bank Limited.	70	1100	45	787	15	699
5.	Haryana	Haryana State Coop. Land Dev. Bank Ltd.	553	5294	503	6485	196	5698
6.	Himachal Pradesh	Himachal Pradesh State Coop. Agri. & R. Dev. Bank Ltd.	-	175	Nil	362	Nil	376
7.	J&K	J&K Coop. Central Land Dev. Bank Limited.	-	-	-	11	*	*
8.	Karnataka	Karnataka State Coop. Agri. & R.D. Bank Ltd.	97	3793	116	3948	296	3001
9.	Kerala	Kerala State Coop. Agri. & R.D. bank Ltd.	11	1304	43	1597	57	1501
10.	M.P.	M.P State Coop. Land Dev. Bank Ltd.	118	1730	48	1899	288	1510
11.	Maharashtra	Maharashtra Coop. Agri. & R D Bank Ltd.	-	404	30	4601	1	288+6
12.	Orissa	Orissa State Agri. & RD Bank Ltd.	-	106	-	334	Nil	1
13.	Punjab	Punjab State Coop. Agri Dev Bank Ltd.	2536	-	Nil	3092	Nil	3281
14.	Rajasthan	Rajasthan Coop. Land Dev. Bank Ltd.	96	5435	162	5689	5	5153
15.	Tamilnadu	Tamilnadu State Land Dev. Bank Ltd.	6	284	3	305	17	329
16.	U.P.	U.P. Coop RD Bank Ltd.	-	20116	Nil	18650	Nil	14756
17.	Delhi	Delhi State Coop. Bank Ltd.	1	70	1	Nil	1	Nil
18.	West Bengal	West Bengal State Coop. Agri. & RD Bank Ltd.	-	617	Nil	373	Nil	344
19.	Pondicherry	Pondicherry Coop.Central Land Dev. Bank Ltd.	7	26	0	22	1	37
	Total		**3729**	**47285**	**1503**	**59283**	**1072**	**48556**

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Annexure-11

Sanctions and disbursement of RIDF under NABARD

(As on 25.02.2000)
(Rs. In crores)

S.I.	State	RIDF-I State Total		RIDF-II State Total		RIDF-III State Total		RIDF-IV State Total	
		San	Disb	San	Disb	San	Disb	San	Disb
1	Andhra Pradesh	227.08	206.19	333.39	241.16	275.10	142.42	305.41	66.16
2	Assam			63.29	42.62	16.07	7.24	64.72	9.30
3	Bihar	2618.13				62.31	-	118.50	–
4	Goa	6.85	6.85					8.93	4.96
5	Gujarat	141.48	133.63	129.63	86.22	160.60	92.75	136.36	33.82
6	Haryana	18.28	16.54	61.06	39.80	74.98	39.18	102.42	10.53
7	Himachal Pradesh	14.23	14.23	49.50	42.57	50.11	33.47	88.58	23.82
8	Jammu & Kashmir	6.14	6.04	8.06	0.57	35.95	10.18	105.87	22.80
9	Karnataka	169.51	126.76	172.46	132.40	171.83	90.00	179.86	6.30
10	Kerala	95.93	82.80	87.60	58.21	92.93	27.00	64.55	10.01
11	Madhya Pradesh	198.51	164.61	207.60	106.13	248.70	94.83	242.84	33.51
12	Maharashtra	173.74	151.34	231.66	156.13	254.31	38.46	301.98	
13	Manipur	1.75	0.96						
14	Meghalaya	3.39	3.39	0.00		8.25	2.14	9.33	2.33
15	Mizoram	2.38	2.37						
16	Nagaland	1.38	1.38					0.72	–
17	Orissa	158.09	146.13	125.14	96.68	162.91	70.20	162.52	52.73
18	Punjab	60.50	60.50	62.50	62.05	88.85	73.73	109.96	30.83
19	Rajasthan	123.51	111.27	148.22	119.53	162.88	95.66	152.95	14.24
20	Tamil Nadu	–	–	266.68	198.12	195.75	95.97	179.66	42.12
21	Tripura							21.70	4.31
22	Uttar Pradesh	292.35	292.35	491.65	281.75	432.98	180.74	525.77	105.02
23	West Bengal	102.52	102.52	158.70	94.05	176.76	50.52	214.32	26.25
24	Sikkim							21.29	6.65
	Total	**1797.62**	**1585.96**	**2597.73**	**1757.99**	**2671.27**	**1152.49**	**3118.28**	**219.86**

Annexure-12

Rural Infrastructure Development Fund
Purpose Wise Sanctions (As On 25.02.99)

(Rs.Crores)

	RIDF-IV	RIDF III	RIDF II	RIDF I
Corpus	3000.00	2500.00	2500.00	2000.00
Sanctions Issued	3118.28	2671.28	2597.76	1797.63
Type of Projects				
1. Major Irrigation	317.37	223.88	412.51	227.73
2. Medium Irrigation	170.96	203.99	237.28	838.88
3. Minor Irrigation	436.67	512.68	581.15	616.36
Total (1+2+3)	925.00	940.15	1230.94	1682.97
4. Rural Roads & Bridges	1991.95	1588.90	1258.21	28.21
5. Water Shed Mgt.	32.28	20.43	108.61	78.88
6. Flood Protection	48.63	96.47		7.57
7. Rural Market Yards		20.93		
8. CADA		4.00		
9. Drainage	117.20	–	–	–
10. Cold Storage	0.72	–	–	–
11. Fisheries	2.50	–	–	–

Annexure-13

Progress achieved in PIM

State	No.of WUA	Area covered (Th.ha.)
A.P.	10292	4800
Assam	2	1
Bihar	1	l2.20
Goa	39	4.59
Gujarat	476	19
Haryana	554	110.80
Himachal Pradesh	875	35
Jammu & Kashmir	1	1.00
Karnataka	l93	138.38
Kerala	3712	148.48
Madhya Pradesh	65	26.80
Maharashtra	l42	55.80
Manipur	62	49.27
Orissa	88	34.31
Rajasthan	35	15.93
Tamil Nadu	328	426.40
Uttar Pradesh	1	0.25
West Bengal	10000	37.00
Total	**26866**	**5916.21**

Annexure-14

RATE OF SILTING IN VARIOUS RESERVOIRS IN INDIA

Sl. No.	Name of Reservoir	Name of river	Storage capacity (Mm3)	Catchment area (Km3)	Year of impounding	Designed Rate or sedimentation	Observed Rate of Silting in Ha.m/100 Km^2 per year At first survey	At last survey	Average period	Total Storage Lost up to last survey Mm^3	Yearly Average loss in Capacity
1	2	3	4	5	6	7	8	9	10	11	12
ANDHRA PRADESH											
1.	Sriramasagar	Godavari	3171.94	91751	1970	3.57	N.A. (1972)	6.186 (1984)	6.186 (14 years)	794.57	1.79
2.	Nizamsagar	Manjira	841.18	21694	1930	2.38	N.A. (1961)	4.298 (1975)	4.8911 (45 years)	477.48	1.26
BIHAR											
3.	Panchet Hill	Damodar	1581.00	10878	1956	6.67	12.13 (1962)	3.36 (1985)	5.887 29 yesrs	185.40	0.404
4.	Maithon	Barakae	1348.80	6294	1955	9.05	12.53 (1963)	9.056 (1979)	10.247 (24years)	154.80	0.48
GUJARAT											
5.	Ukai	Tapi	8510.00	62224	1972	1.49	6.20 (1979)	8.903 (1984)	7.16 (12 years)	547.00	0.53
6.	Kadana	Mahi	1543.00	255520	1977	1.30	4.898 (1980-81)	2.612 (1964)	3.918 (7 years)	70.00	0.65
HIMACHAL PRADESH											
7.	Pongb	Beas	8579.00	12562	1974		22.17 (1980)	39.12 (1986)	27.85 (112years)	419.75	0.41
KARNATAKA											
8.	Tunghbhadra	Tunghbhadra	3751.17	28180	1953	4.29	17.90 (1963)	9.66 (1985)	6.48 (32 years)	584.43	0.49
9.	Bhadar	Bhadar	239.22	2434.6	1963	7.6	11.607 (1974)	11.607 (1974)	11.607 (11 years)	31.09	1.18
MAHAYA PRADESH											
10.	Gandhi Sagar	Chambal	7740.00	23025	1960	3.57	8.958 (1976)	8.958 (1976)	8.958 (16years)	330.00	0.29
MAHARASHTRA											
11.	Gima	Gima & Panzan	608.81	4729.33	1965	0.56	7.487 (1979)	7.487 (1979)	7.487 (14 years)	49358	0.58
12.	Shivaji Sagar (Koyna)	Koyna	2987.83	891	1961	6.67	N.A. (1966)	7.7104 (1971)	7.7104 (10 years)	6.87	0.023
ORISSA											
13.	Hirakud	Mahanadi	8105.00	83395	1957	2.50	5.568 (1978)	0.702 (1984)	6.618 (27 years)	1490.30	0.61
PUNJAB											
14.	Bhakra	Sutluj	9869.00	56980	1958	4.29	0.0281 (1958)	6.532 (1987)	5.568 (29 years)	935.056	0.32
15.	Matatila	Betwa	11.32	20720	1956	1.33	11.82 (1962)	5.286 (1984)	6.005 (28 years)	348.40	1.10
16.	Ramganga	Ramganga	2449.60	3134	1975	4.25	N.A. (1978)	22.94 (1985)	22.94 (10 years)	79.06	0.29
17.	Ichari	Tons	11.55	4913	1972	N.A.	1.262 (1977)	1.669 (1978)	1.3298 (6 years)	3.92	0.65
18	Dhukwan	Betwa	106.45	21340	1907	0.432	0.425 (1937)	0.12 (1980)	0.304 (73 years)	47.42	0.61
WEST BENGAL											
19.	Mayurakshi	Mayurkshi	607.70	1860	1955	3.75	N.A. (1964-65)	16.826 (1970)	16.826 (15 years)	46.945	0.515

Publication (1991) "Compendium on silting of Reservoirs in India"

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Major & Medium Irrigation Schemes - Physical achievement upto Eighth Plan and Target for Ninth Plan

(000' ha.)

Sl. No.	Name of States & U.Ts.	Ult. Irrgn. Pot.	Achievement to end of March 1992		Eighth Plan Target 1992-97		Achievement During 1992-97		Achievement Upto March, 1997		Ninth Plan Target		1997-98 Target Major & medium		1997-98 Achievement Major & Medium		1998-99 Antcpd. Achiv. Major & edium		Target 1999-2000 Major & Medium	
			Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	Andhra Prd.	5000.00	2999.00	2847.00	419.00	208.00	46.10	36.80	3045.10	2883.80	579.13	506.28	115.51	152.78	76.52	12.10	116.17	158.79	151.41	151.50
2	Arunachal Prd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
3	Assam	970.00	176.00	111.00	120.00	74.80	20.67	27.17	196.67	138.17	6.50	4.00	1.15	0.20	4.20	2.00	1.30	1.00	0.02	0.02
4	Bihar	6500.00	2766.00	2295.00	315.00	410.00	36.50	29.20	2802.50	2324.20	492.00	518.00	25.57	25.50	4.33	4.33	27.10	22.10	53.46	0.00
5	Goa	62.00	13.00	12.00	36.20	14.23	0.02	0.07	13.02	12.07	16.22	12.00	7.00	2.50	3.50	1.00	0.02	0.02	0.89	0.89
6	Gujarat	3000.00	1246.00	986.00	448.00	404.00	104.00	214.00	1350.00	1200.00	1867.00	1892.00	65.00	60.00	17.14	20.62	16.08	20.00	15.00	20.00
7	Haryana	3000.00	2035.00	1791.00	296.00	270.00	43.79	42.62	2078.79	1833.62	197.71	211.21	45.00	41.00	1.66	1.66	3.49	3.49	7.00	3.00
8	Himachal Prd	50.00	8.00	4.00	2.64	2.00	2.55	1.59	10.55	5.59	3.00	1.50	0.30	0.15	0.30	0.15	0.15	0.34	0.15	0.34
9	J&K	250.00	158.00	136.00	20.50	23.00	15.70	11.57	173.70	147.57	29.90	40.10	2.45	5.69	2.07	2.62	0.22	2.86	0.70	5.30
10	Karnataka	2500.00	1377.00	1192.00	401.00	361.00	289.02	279.70	1666.02	1471.70	1109.88	887.90	119.21	95.36	45.44	36.35	35.17	35.17	100.00	80.00
11	Kerala	1000.00	416.00	367.00	148.00	148.00	97.31	97.31	513.31	464.31	373.12	373.12	32.23	30.61	32.23	30.61	14.00	14.00	30.00	30.00
12	Madhya Prd.	6000.00	1962.00	1395.00	450.00	300.00	355.60	225.95	2317.60	1620.95	384.75	195.11	53.30	23.30	32.00	23.30	20.70	10.30	28.00	13.60
13	Maharashtra	4100.00	2030.00	1036.00	400.00	444.00	307.00	251.70	2337.00	1287.70	1755.00	1700.00	151.00	150.00	151.00	150.00	187.00	187.00	200.00	187.00
14	Manipur	135.00	59.00	50.00	54.16	43.39	4.00	2.00	63.00	52.00	50.38	42.33	0.77	1.53	1.00	1.00	12.00	10.00	4.00	4.00
15	Meghalaya	20.00	0.00	0.00	3.88	3.00	0.00	0.00	0.00	0.00	3.88	3.88	0.00	0.00	0.00	0.00	0.00	0.97	0.00	0.00
16	Mizoram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	Nagaland	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.50	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	Orissa	3600.00	1409.00	1326.00	334.00	340.00	148.75	116.66	1557.75	1442.66	915.39	819.27	120.63	54.14	34.57	54.14	40.39	191.30	62.51	40.39
19	Punjab	3000.00	2367.00	2309.00	218.10	218.10	145.86	142.25	2512.86	2451.25	126.25	126.25	21.60	12.22	12.62	22.85	5.01	5.01	1.77	1.77
20	Rajasthan	2750.00	1999.00	1887.00	288.61	232.13	274.88	201.39	2273.88	2088.39	469.26	394.92	48.60	46.46	58.90	46.46	11.50	98.70	19.00	27.78
21	Sikkim	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	Tamil Nadu	1500.00	1545.00	1541.00	10.30	10.57	0.51	4.49	1545.51	1545.49	4.80	3.80	2.18	0.00	2.18	2.18	0.00	0.00	1.62	1.62
23	Tripura	100.00	2.00	2.00	13.20	12.00	0.30	0.30	2.30	2.30	22.92	11.05	0.85	0.85	0.85	0.85	0.20	0.80	1.00	0.80
24	Uttar Pradesh	12500.00	6789.00	5751.00	889.00	600.00	254.00	363.00	7043.00	6114.00	1000.00	600.00	140.00	75.00	129.00	33.00	112.00	75.00	125.00	75.00
25	West Bengal	2300.00	1353.00	1258.00	552.39	474.85	79.68	57.28	1432.68	1315.28	395.00	355.00	74.00	67.00	53.41	43.22	50.00	40.00	28.00	20.00
	Total States	**58367.00**	**30709.00**	**26296.00**	**5419.98**	**4593.07**	**2226.24**	**2105.05**	**32935.24**	**28401.05**	**9606.59**	**8702.22**	**1026.35**	**844.29**	**662.92**	**488.44**	**652.50**	**876.85**	**829.53**	**663.01**
26	A & N Island	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	D & N Haveli	0.00	0.00	0.00	0.00	0.00	0.00	2.20	0.00	0.10	0.40	0.10	0.40	0.00	0.55	0.00	0.00	0.00	0.00	0.00
29	Daman & Diu				1.71	1.71	3.22	2.00	3.22	2.00	3.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00
30	Delhi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NR	NR	NR	NR	0.00	NR
31	Lakshadweep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32	Pondicherry	0.00	0.00	0.00	2.50	2.50	0.29	0.29	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total U.Ts.	**98.00**	**15.00**	**7.00**	**4.21**	**4.21**	**3.51**	**2.29**	**18.51**	**9.29**	**5.20**	**3.00**	**0.10**	**0.40**	**0.10**	**0.40**	**0.00**	**0.55**	**3.00**	**0.00**
	Total States & Uts.	**58465.00**	**30724.00**	**26303.00**	**5424.19**	**4597.28**	**2229.75**	**2107.34**	**32953.75**	**28410.34**	**9611.79**	**8705.22**	**1026.45**	**844.69**	**663.02**	**488.84**	**652.50**	**877.40**	**832.53**	**663.01**

NOTE :- The physical achievements during Eighth Plan as above are anticipated and are likely to change.

Annexure-16

Minor Irrigation – Physical Details

(000' ha.)

Sl. No.	Name of States & U.Ts.	Ult. Irrgn. Pot.	Achievement to end of March 1992		Eighth Plan Target 1992-97		Achievement During 1992-97		Achievement Upto March-1997		Ninth Plan Target Minor Irrigation		1997-98 Target Minor Irrigation		1997-98 Achievement Minor Irrigation		1998-99 Antcpd. Achiv. Minor Irrigation		Target 1999-2000 Minor Irrigation	
			Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.	Pot.	Utl.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	Andhra Prd.	6260.00	2877.34	2662.63	500.00	400.00	24.53	24.53	2901.87	2687.16	28.90	28.70	5.30	5.30	45.94	45.94	49.73	49.73	48.33	48.33
2	Arunachal Prd.	168.00	64.89	55.84	20.00	20.00	18.53	9.70	83.42	65.54	23.00	23.00	4.35	2.25	4.68	2.68	3.21	1.75	2.18	2.18
3	Assam	1900.00	575.28	466.97	180.00	120.00	17.48	17.48	592.76	484.45	12.84	12.00	7.98	7.98	6.00	4.80	1.22	1.22	0.20	0.20
4	Bihar	6847.00	4876.90	4357.19	1832.00	1466.00	231.34	216.51	5108.24	4573.70	205.25	190.00	8.71	7.00	42.30	25.50	20.00	20.00	66.22	50.22
5	Goa	54.00	18.41	16.71	4.00	3.00	2.11	1.06	20.52	17.77	3.02	1.68	0.24	0.20	0.27	0.20	0.01	0.01	0.40	0.40
6	Gujarat	3103.00	1900.30	1804.22	180.00	150.00	35.00	35.40	1935.30	1839.62	70.10	50.80	23.91	9.50	23.91	11.50	7.20	4.00	7.20	4.00
7	Haryana	1512.00	1524.47	1483.72	100.00	90.00	52.30	47.90	1576.77	1531.62	80.64	80.64	18.00	18.00	15.07	12.06	8.50	8.50	8.50	8.50
8	Himachal Prd.	303.00	141.61	122.45	25.00	20.00	8.77	5.97	150.38	128.42	6.00	6.00	1.80	1.80	2.00	1.80	2.00	2.00	2.12	2.00
9	J & K	1108.00	363.62	352.31	40.00	40.00	11.00	8.85	374.62	361.16	21.00	15.00	3.60	5.00	1.62	1.38	0.91	0.63	1.70	1.20
10	Karnataka	3474.00	1435.48	1395.51	220.00	200.00	95.53	93.20	1531.01	1488.71	155.00	155.00	14.00	14.00	4.76	4.76	28.13	28.13	7.00	6.00
11	Kerala	1679.00	518.04	482.41	100.00	85.00	55.08	55.08	573.12	537.49	50.18	50.18	12.84	12.84	12.84	12.84	20.00	20.00	18.00	18.00
12	Madhya Prd	11932.00	2560.52	2375.02	500.00	375.00	97.00	47.00	2657.52	2422.02	150.00	67.00	25.00	11.00	11.00	11.00	9.90	10.00	18.50	18.50
13	Maharashtra	4852.00	2457.40	2212.10	400.00	325.00	90.00	129.00	2547.40	2341.10	528.00	400.00	20.00	83.30	82.00	19.30	67.00	67.00	90.00	4.00
14	Manipur	469.00	49.57	41.21	15.00	12.00	10.82	9.98	60.39	51.19	15.00	12.00	3.00	3.00	3.00	3.00	4.00	2.40	3.00	1.80
15	Meghalaya	148.00	42.51	37.19	7.30	5.55	4.06	4.06	46.57	41.25	8.82	6.62	5.75	2.45	3.50	2.68	0.61	0.48	2.13	1.60
16	Mizoram	70.00	10.54	9.03	6.00	4.00	2.19	2.19	12.73	11.22	1.85	1.85	0.00	1.36	0.11	0.11	0.35	0.35	1.50	0.80
17	Nagaland	75.00	65.10	55.93	13.00	10.00	2.14	2.00	67.24	57.93	14.30	12.00	1.03	1.00	1.03	1.00	1.03	1.00	3.45	3.00
18	Orissa	5203.00	1245.38	1126.18	150.00	150.00	112.09	100.87	1357.47	1227.05	89.60	101.07	66.08	29.39	30.76	29.39	16.19	29.39	27.06	18.60
19	Punjab	2967.00	3290.45	3238.19	76.00	70.00	63.72	57.93	3354.17	3296.12	241.61	241.61	19.75	19.75	14.72	19.75	13.41	19.75	16.56	12.00
20	Rajasthan	2378.00	2388.71	2316.63	300.00	280.00	32.53	20.15	2421.24	2336.78	39.44	25.67	8.70	5.21	7.35	5.21	5.00	5.21	5.00	9.20
21	Sikkim	50.00	22.19	17.07	5.00	4.00	4.04	3.51	26.23	20.58	4.50	4.00	0.90	0.80	1.13	1.13	0.30	0.30	1.00	0.75
22	Tamil Nadu	4032.00	2107.91	2102.52	110.00	107.00	7.31	8.84	2115.22	2111.36	11.57	7.38	1.68	0.57	1.81	1.81	1.45	1.45	1.25	1.25
23	Tripura	181.00	87.38	78.83	27.00	16.00	5.20	5.20	92.58	84.03	16.00	16.00	4.20	4.20	4.20	4.20	2.50	2.00	6.45	3.00
24	Uttar Prd.	17999.00	15806.00	13886.00	5439.00	5000.00	4644.61	4596.71	20450.61	18482.71	5000.00	3000.00	129.10	117.45	328.16	359.94	378.87	364.96	143.02	143.01
25	West Bengal	4618.00	2772.37	2309.90	450.00	400.00	445.00	267.00	3217.37	2576.90	450.00	400.00	150.00	150.00	150.00	150.00	100.00	90.00	100.00	90.00
	Total States	**81382.00**	**47202.37**	**43005.76**	**10699.30**	**9352.55**	**6072.38**	**5770.12**	**53274.75**	**48775.88**	**7226.62**	**4908.20**	**535.92**	**513.35**	**798.16**	**731.98**	**741.52**	**730.26**	**580.77**	**448.54**
26	A & N Island	0.00	0.00	0.00	0.00	0.00	0.55	0.55	0.55	0.55	0.56	0.56	0.10	0.10	0.10	0.10	0.10	0.11	0.10	0.10
27	Chandigarh	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.12	0.12	0.10	0.10	0.02	0.02	0.00	0.00	0.06	0.00	0.02	0.02
28	D & N Haveli	0.00	0.00	0.00	0.00	0.00	0.26	0.25	0.26	0.25	0.55	0.55	0.09	0.09	0.09	0.09	0.12	0.11	0.14	0.12
29	Daman & Diu	0.00	0.00	0.00	0.00	0.00	5.39	4.94	5.39	4.94	2.20	2.00	0.80	0.00	1.69	0.00	2.19	0.00	2.20	2.20
30	Delhi	0.00	0.00	0.00	0.00	0.00	21.64	18.52	21.64	18.52	9.70	9.70	4.74	4.09	NR	NR	NR	NR	NR	NR
31	Lakshadweep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32	Pondicherry	0.00	0.00	0.00	0.00	0.00	2.02	2.01	2.02	2.01	4.00	4.00	0.48	0.48	0.10	0.00	0.00	0.00	0.00	0.00
	Total U.Ts.	**46.00**	**0.00**	**0.00**	**0.00**	**0.00**	**29.98**	**26.39**	**29.98**	**26.39**	**17.11**	**16.91**	**6.23**	**4.78**	**1.98**	**0.19**	**2.47**	**0.22**	**2.46**	**2.44**
	States & UTs	**81428.00**	**47202.37**	**43005.76**	**10699.30**	**9352.55**	**6102.36**	**5796.51**	**53304.73**	**48802.27**	**7243.73**	**4925.11**	**542.15**	**518.13**	**800.14**	**732.17**	**743.99**	**730.48**	**583.23**	**450.96**

The physical achievement during Eighth Plan are anticipated and are likely to change.

Annexure 17

PHYSICAL ACHIEVEMENTS IN RESPECT OF LAND LEVELLING UNDER THE CAD PROGRAMME

(Unit : 000 ha)

Sl. No.	Name of the State	1995-96 Target	1995-96 Achievement	1996-97 Target	1996-97 Achievement	1997-98 Target	1997-98 Achievement (Provisional)
1	Andhra Pradesh	0.00	0.00	0.00	0.00	28.00	0.00
2	Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00
3	Assam	0.82	0.30	1.75	0.01	2.78	0.52
4	Bihar	0.00	0.00	0.00	0.00	6.88	0.00
5	Goa	1.18	0.00	0.00	0.00	0.00	0.00
6	Gujarat	0.00	0.00	0.05	0.00	1.73	0.00
7	Haryana	0.00	0.00	0.00	0.00	0.00	0.00
8	Himachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.43
9	Jammu & Kashmir	1.43	1.38	1.72	1.40	2.05	2.27
10	Karnataka	1.00	0.01	12.90	0.66	5.10	0.25
11	Kerala	0.00	0.00	11.23	4.48	23.30	16.37
12	Madhya Pradesh	1.51	0.02	0.00	0.00	0.00	0.00
13	Maharashtra	25.02	16.65	62.21	9.81	0.00	0.00
14	Manipur	1.19	0.98	2.07	0.47	1.48	0.07
15	Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00
16	Nagaland	0.00	0.00	0.00	0.00	0.00	0.00
17	Orissa	14.85	9.72	11.40	8.23	5.00	5.06
18	Rajasthan	0.00	2.87	2.50	2.60	2.50	2.78
19	Tamil Nadu	0.00	0.00	0.00	0.00	0.00	0.00
20	Tripura	0.00	0.00	0.00	0.00	0.00	0.00
21	Uttar Pradesh	4.00	0.00	705 KM	0.00	581 KM	453.71 km
22	West Bengal	0.00	0.00	0.00	0.00	0.00	0.00
23	Dadra & Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00
24	Daman & Diu	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**51.00**	**31.93**	**105.83**	**27.66**	**78.82**	**27.75**
				+	**+**	**+**	**+**
				705 km		**581 km**	**453.71 km**

Note: Daman Ganga Project comes under Gujarat, Daman & Diu and Dadra & Nagar Haveli. The physical achievements for this project are shown accordingly.

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Annexure 18

PHYSICAL ACHIEVEMENTS IN RESPECT OF FIELD CHANNELS UNDER THE CAD PROGRAMME

(Unit : 000 ha)

Sl. No.	Name of the State	1995-96		1996-97		1997-98	
		Target	Achievement	Target	Achievement	Target	Achievement (Provisional)
1	Andhra Pradesh	1.17	0.09	33.35	0.03	29.20	2.15
2	Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00
3	Assam	1.67	0.74	3.05	0.15	1.90	0.44
4	Bihar	0.84	0.00	120 km	0.00	1.27	30.81 km
5	Goa	1.45	0.27	0.80	0.10	0.32	0.00
6	Gujarat	10.31	22.04	29.74	10.53	22.94	7.24
7	Haryana	34.27	33.95	42.50	35.79	45.83	28.21
8	Himachal Pradesh	0.69	0.01	0.40	0.55	0.84	1.41
9	Jammu & Kashmir	3.82	3.95	4.49	4.52	4.76	6.97
10	Karnataka	30.16	13 04	29.90	23.75	17.86	11.03
11	Kerala	28.50	17.75	18.20	14.39	15.45	7.89
12	Madhya Pradesh	6.04	8.95	2.88	1.41	4.63	4 23
13	Maharashtra	28.43	39.49	62.21	20.88	53.94	25.23
14	Manipur	2.45	2.50	9.15	2.24	8.26	3.33
15	Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00
16	Nagaland	0.00	0.00	0.00	0.00	0.00	0 00
17	Orissa	10.12	8.80	13.00	18.66	6.80	7.00
18	Rajasthan	24.31	51.83	76.50	69.39	64.00	54.25
19	Tamil Nadu	52.55	43.94	42.60	41.61	44.74	46.61
20	Tripura	0.00	0.00	0.00	0 00	0 00	0.00
21	Uttar Pradesh	144.03	116.55	121.00	126.87	99.63	112.20
22	West Bengal	4.19	5.64	8.80	5.35	4.55	0.82
23	Dadra & Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00
24	Daman & Diu	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**385.00**	**369.54**	**498.57 + 120 km**	**376.22**	**426.92**	**319.01 + 30.81 km**

Note: Daman Ganga Project comes under Gujarat, Daman & Diu and Dadra & Nagar Haveli.
The physical achievements for this project are shown accordingly.

Annexure 19

PHYSICAL ACHIEVEMENTS IN RESPECT OF FIELD DRAINS UNDER THE CAD PROGRAMME

(Unit : 000 ha)

Sl. No.	Name of the State	1995-96 Target	1995-96 Achievement	1996-97 Target	1996-97 Achievement	1997-98 Target	1997-98 Achievement (Provisional)
1	Andhra Pradesh	4.20	7.41	4.70	6.00	1.20	3.89
2	Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00
3	Assam	0.00	0.00	0.20	0.00	0.80	0.00
4	Bihar	0.00	0.00	0.00	0.00	0.00	0.00
5	Goa	0.03	0.01	0.04	0.00	0.03	0.01
6	Gujarat	0.15	0.00	0.75	0.05	2.17	0.03
7	Haryana	1.05	0.65	0.63	0.51	0.72	0.47
8	Himachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00
9	Jammu & Kashmir	1.18	2.27	2.57	1.91	1.73	2.27
10	Karnataka	27.13	0.00	0.00	0.00	0.00	0.00
11	Kerala	0.11	0.20	0.71	0.08	0.52	0.23
12	Madhya Pradesh	0.00	0.00	0.00	0.00	0.00	0.00
13	Maharashtra	0.85	0.73	0.00	1.45	0.00	0.00
14	Manipur	2.30	1.28	2.17	0.00	3.70	0.35
15	Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00
16	Nagaland	0.00	0.00	0.00	0.00	0.00	0.00
17	Orissa	0.00	3.73	3.64	0.16	0.00	0.00
18	Rajasthan	0.00	3.01	2.64	0.60	4.50	3.98
19	Tamil Nadu	0.00	0.00	0.00	0.00	0.00	0.00
20	Tripura	0.00	0.00	0.00	0.00	0.00	0.00
21	Uttar Pradesh	0.00	0.00	0.00	0.00	0.00	0.00
22	West Bengal	0.00	0.00	0.02	0.00	0.05	0.00
23	Dadra & Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00
24	Daman & Diu	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**37.00**	**19.29**	**18.07**	**10.76**	**15.42**	**11.23**

Note: Daman Ganga Project comes under Gujarat, Daman & Diu and Dadra & Nagar Haveli.
The physical achievements for this project are shown accordingly.

Annexure 20

PHYSICAL ACHIEVEMENTS IN RESPECT OF WARABANDI UNDER THE CAD PROGRAMME

(Unit : 000 ha)

Sl. No.	Name of the State	1995-96 Target	1995-96 Achievement	1996-97 Target	1996-97 Achievement	1997-98 Target	1997-98 Achievement (Provisional)
1	Andhra Pradesh	14.53	11.04	32.50	11.49	29.20	4.80
2	Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00
3	Assam	1.13	0.00	1.10	0.02	1.75	0.86
4	Bihar	2.34	0.00	1.16	0.00	7.27	0.00
5	Goa	1.69	1.50	1.50	1.50	0.80	0.00
6	Gujarat	20.45	7.06	51.40	12.43	21.00	5.87
7	Haryana	21.82	9.58	8.59	2.17	0.00	0.00
8	Himachal Pradesh	2.01	0.13	0.25	0.25	1.83	2.38
9	Jammu & Kashmir	31.00	28.37	31.20	30.92	46.06	45.64
10	Karnataka	8.93	9.63	35.67	7.49	25.67	16.23
11	Kerala	15.20	3.97	21.25	11.15	14.60	9.11
12	Madhya Pradesh	0.00	8.48	7.00	0.00	2.33	0.17
13	Maharashtra	15.06	4.25	51.00	4.87	21.50	21.24
14	Manipur	1.87	1.36	0.90	0.51	1.33	0.57
15	Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00
16	Nagaland	0.00	0.00	0.00	0.00	0.00	0.00
17	Orissa	73.82	56.55	60.00	0.00	14.00	15.00
18	Rajasthan	20.49	53.86	76.50	69.39	64.00	54.25
19	Tamil Nadu	56.27	58.34	63.55	60.84	72.55	75.31
20	Tripura	0.00	0.00	0.00	0.00	0.00	0.00
21	Uttar Pradesh	293.39	198.45	225.00	204.61	155.00	170.26
22	West Bengal	0.00	0.00	1.00	0.00	0.00	0.00
23	Dadra & Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00
24	Daman & Diu	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**580.00**	**452.57**	**669.57**	**417.64**	**478.89**	**421.69**

Note: Daman Ganga Project comes under Gujarat, Daman & Diu and Dadra & Nagar Haveli.
The physical achievements for this project are shown accordingly.

CHAPTER- 5

INDUSTRIAL DEVELOPMENT

OVERVIEW

The Ninth Five Year Plan was formulated after a careful stocktaking of strengths and weaknesses of the past development strategies. The pace of reforms initiated in 1991 was continued in the Ninth Plan. Major structural changes and modifications in sectoral policies were introduced by the Government to accelerate the pace of industrial growth. They included delicensing of coal & lignite and petroleum (other than crude oil), amendment of Mines and Minerals (Regulation and Development) Act, special package for revival of exports growth, repeal of Urban Land Ceiling Regulating Act, buy- back of shares and liberalisation of technology imports.. Although the performance of Indian industry during first two years of the Plan, i.e. 1997-98 and 1998-99, fell short of the projected average annual growth rate of 8.2 percent, the industrial recovery seems finally to be under way from the cyclical downturn of the previous two years. However, in view of the shortfall in the first two years, the industrial sector would need to grow at around 10 percent in the remaining period to achieve the Ninth Plan target. There have been several reasons for slow-down in industrial growth: slackening in aggregate demand, slow down in general investment climate, falling export growth, erosion of competitive advantage of Indian exports and persistence of infrastructure bottlenecks. Real Gross Domestic Capital formation declined to 25.1 per cent during 1998-99 mainly due to fall in the household investment rate. On the resource mobilisation front, there has been a significant increase of 45.7 percent during April-December 1999 through public and rights issues. What is most important, the proportion of resources raised through equity issues was significantly higher at 61.2 percent as against 17.9 percent in the corresponding period of the previous year. Foreign Direct Investments (FDI) continued to remain sluggish and India's share among developing countries declined from 1.9 percent in 1997 to 1.4 percent in 1998. Very little progress has been made in respect of several areas identified in the industrial reforms, which include disinvestment of Public Sector Enterprises (PSEs), closure of non-viable sick PSEs, review and revamping of BIFR as an instrument of reviving sick units, feedstock pricing policy for fertilizers, review of reservation policy for SSI units etc. No chronic loss- making PSE has been closed down. Recently, the Government has set up a separate Department of Disinvestment to expedite the process of disinvestment.

Performance of the Industrial Sector

2. The Indian industry has developed a highly diversified structure, considerable entrepreneurship and a vast capital market. As the economy develops and competition intensifies, major changes in the industry structure are inevitable. Over the years, adjustments have been made in the policy to accelerate the pace of industrial growth by providing greater freedom in investment decisions keeping in view the objectives of efficiency and competitiveness, technological upgradation, maximisation of capacity utilisation and increased exports. Notwithstanding the dislocation caused by structural changes and adjustment in industrial reforms carried out in the Eighth Plan, the rate of industrial growth during the Plan was 7.3 per cent. The Ninth Five Year Plan was formulated based on careful stock-taking of the strengths and weaknesses of the past development strategy. The pace of reforms continued in the Ninth Plan. Major structural changes and modifications in sectoral policies introduced by the Government to give a boost to specific sectors have been higlighted in Box No.1.

BOX NO. 1

Measures Taken To Improve Industrial Growth

- Delicensing of coal & lignite, petroleum (other than crude oil) and its distillation products and sugar industry.
- Amendment of Mines and Minerals (Regulation and Development) Act, 1957.
- Repeal of Urban Land Ceiling Regulation Act (ULCRA) and incentives to house ownership.
- Buy-back of shares and inter-corporate loans allowed for boosting investment and reviving the capital market.
- Busy season credit policy announced by RBI, and interest rates will not be raised by the RBI during the busy season.
- Special package announced for revival of growth in exports
- Liberalization of Technology imports.

3. The performance of industry during 1997-98 and 1998-99 - first two years of the Ninth Plan -fell short of the average annual growth rate target of 8.2 per cent. As measured by the Index of Industrial Production, IIP, the industrial growth revived slightly to 6.6 per cent in 1997-98 from 5.6 pe rcent in 1996-97. This revival, however, faltered in 1998-99 when growth rate fell to a meagre 4 per cent. The mining sector (including crude oil) witnessed the greatest deceleration in growth from 5.9 per cent in

1997-98 to -1.7 per cent in 1998-99. Manufacturing sector growth also fell from 6.7 pe rcent to 4.3 per cent during the same period. Although real growth in industrial production was below the target, a positive feature was that the competitive pressures that were built up as a result of opening up of the economy and slackening of demand kept the prices low and thus kept a check on the inflation. In view of the shortfall in growth rate during first two years of the Plan, the industrial sector would need to achieve a growth rate of around 10 per cent in the remaining period of the Plan if it is to achieve the targets set for it in the Plan.

4. Table No. 1 presents trends in performance of industrial sub-sectors at two digit level, during 1999-2000 juxtaposed to performance during 1996-97, 1997-98 and 1998-99.

Table : 1
Trends in the Performance of Industrial Sub-Sectors
Annual Growth Rate (in per cent)

Industry code	Industry name	Weight in IIP	1996-97	1997-98	1998-99	April-March. 1999-2000*
20-21	Food Products	9.08	3.50	-0.40	0.70	4.1
22	Beverages, Tobacco & related Products	2.38	13.50	19.40	12.90	7.6
23	Cotton Textiles	5.52	12.10	2.40	-7.70	6.7
24	Wool, Silk & Man-made Fibre Textiles	2.26	10.50	18.50	2.80	12.0
25	Manufacture of Jute and other vegetable fibre Textiles (except cotton)	0.59	-4.50	16.90	-7.30	-0.90
26	Textile Products (including Wearing Apparel)	2.54	9.40	8.50	-3.50	2.0
27	Wood &Wood products; Furniture and Fixtures	2.70	7.10	-2.60	-5.80	-16.20
28	Paper & Paper Products and Printing, Publishing & Allied Industries	2.65	9.10	6.90	16.00	7.1
29	Leather & Fur products	1.14	9.40	2.20	8.20	12.20
30	Basic Chem. & Chem. Products (except Products of Petroleum & Coal)	14.00	4.70	14.50	6.60	22.4
31	Rubber, Plastic, Petroleum and Coal Products	5.73	2.00	5.20	11.30	-1.2
32	Non-Metallic Mineral Products	4.39	7.70	13.80	8.20	23.2
33	Basic Metal & Alloy Industries	7.45	6.70	2.60	-2.50	4.9
34	Metal Products & parts, except Machinery and Equipment	2.81	10.20	8.40	17.80	-2.5
35-36	Machinery and Equipment other than Transport equipment	9.57	5.20	5.60	1.70	17.40
37	Transport equipment and parts	3.98	12.90	2.60	15.70	1.6
38	Others manufacturing industries	2.56	5.20	-2.70	6.60	-12.80
Div. 1	Mining & Quarrying	10.47	-2.00	5.90	-1.70	0.7
Div. 2-3	Manufacturing	79.36	6.70	6.70	4.30	9.30
Div.4	Electricity	10.17	4.00	6.60	6.50	6.60
	General Index	**100.00**	**5.60**	**6.60**	**4.00**	**8.30**

Source : Economic Survey 1999-2000
* Over the same period last year

5

Reasons For Industrial Slowdown

5. The slow-down in industrial growth can be attributed to slackening in aggregate demand on account of inadequate investment in infrastructure sector like power, port and transport and slow-down in general investment mainly due to subdued capital market conditions and partly due to corporate restructuring in some industries. There has been a decline in the entry of new units in the industrial sector which, in turn, reflects both the slow-down in economic activity and the risk aversion of investors to the Public Offers. The external factors include decline in export growth due to economic crisis in the South-East Asian countries and a slowdown of growth in international trade. Box No. 2 highlights the reasons for slowdown in industrial growth.

BOX No. 2
REASONS FOR SLOW DOWN IN INDUSTRIAL GROWTH

- Slackening in aggregate demand due to:
  - (a) Falling export growth due to overall slump in world trade.
  - (b) Erosion in competitive advantage of Indian exports on account of steep depreciation of South East Asian currencies.
  - (c) Decline in rural demand owing to low agricultural output in 1997-98.
- Price competition from imports in certain key industries.
- Slow off-take of actual investment in infrastructure projects.
- Inadequacy of funds due to continuing sluggishness in capital markets (primary as well as secondary) .
- Persistence of infrastructure bottlenecks.

Capital Formation

6. The Real Gross Domestic Capital Formation dropped marginally from the peak rate of 27.1 per cent of GDP (at 1993-94 Prices) in 1995-96 to 26.9 per cent of GDP in 1997-98 and declined further to 25.1 pe cent during 1998-99. About half of this decline was due to a fall in household investment rate, which fell from 8.8 percent in 1997-98 to 7.9 per cent of GDP in 1998-99. Corporate investment and public investment increased only marginally by 0.1 per cent and 0.2 per cent of GDP to 8.8 per cent and 6.7 per cent respectively. It was quite encouraging, however, that despite two years of rather slow growth in manufacturing, corporate investments edged up to 8.8 pe rcent of GDP in 1998-99. Real Gross Fixed Capital Formation dropped only marginally from 23.3 pe rcent to 23.0 per cent of GDP. Despite a drop in the household fixed investment rate to 7.7 per cent of GDP, a marginal up-trend in corporate and public fixed investment rate helped in maintaining fixed investment rate at 23.0 per cent of GDP. The Corporate Fixed Investment at 8.7 per cent of GDP in 1998-99 was close to its peak of 8.9 per cent in 1996-97. An important factor from the perspective of future productivity improvement was that growth in investment in machinery and equipment accelerated to 4.9 per cent after a sharp deceleration in 1996-97 and almost nil growth in 1997-98. . This suggests that Indian corporate industry is responding to the challenge of domestic and global competition.

Resource Mobilisation

7. Resource mobilisation through public and rights issues from the primary market increased from Rs. 4,570 crore in 1997-98 to Rs.5,587 crore in 1998-99. During April-December, 1999, it amounted to Rs.5723 crore, which exceeded the figure in corresponding period of 1998-99 by 45.7 per cent. The proportion raised through equity issues during April-December, 1999 was also significantly higher at 61.2 per cent as against 17.9 per cent in the corresponding period of 1998-99 and 54.1 per cent in the corresponding period of 1997-98. However, the proportion of resources raised through public issues during April-December 1999 declined to 75.8 per cent from 89.6 per cent during the corresponding period in the previous year. Banks and financial institutions were in the forefront in resource mobilisation to the tune of Rs. 3,039 crore from 12 issues during April-December 1999 followed by the Information Technology Sector raising Rs. 1,393 crore through 20 issues and cement and construction sector which together raised Rs. 337 crore. However, the share of banks and financial institutions declined to 53.1 per cent during April-December 1999 from 84.4 pe rcent a year earlier. The share of Initial Public Offers (IPOs) increased from 7.8 per cent to 31.9 per cent during this period.. This is a reflection of improvement in the prospects of new/unlisted companies for resource mobilisation from primary market, which in turn would accelerate economic activity.

5

Performance Of Industry Sector During 1999-2000

8. The performance of the industry sector during 1999-2000 indicates that the industry is on the path of recovery with overall growth in the general index being 8.3 per cent. What is most heartening, the Machinery and Equipment (other than transport equipment) sector has recorded a growth of as much as 17.4 per cent as against 1.7 per cent during the corresponding period in the previous year, which is a clear indication of a significant improvement in the investment climate.

9. The world economy is coming out of its depressed phase, which has been predicted based on positive signals from the western countries and more particularly with the economy of Japan recording a positive growth of around 1.9 per cent during April-June 1999 over a year ago and South East Asian crisis having blown over. Then, there are the measures announced in the Budget of 1999-2000, comfortable performance of the agriculture sector and the exports pick- up because of recovery of the world economy. All these have led to expectations that the industrial growth would be significantly higher in 1999-2000 compared to 1998-99 and may be even higher in last two years of the Plan so as to achieve the 8.2 per cent target.

(FIPB)/ Government. FIPB is required to dispose of applications for FDI within a time-frame of six weeks. At present, FDI is not permissible in agriculture and real estate and only up to 26 percent in insurance sector. FDI policies have been further liberalised for repatriation of original investment and returns, liberal access to foreign technology, easy access to domestic debt, external commercial borrowings (ECB), etc. Also, there is now no ceiling on raising Global Depository Receipts (GDRs)/ American Depository Receipts (ADRs)/ Foreign Currency Convertible Bonds (FCCBs) so long as the total foreign equity is within the permissible limits for the particular industry. Investment is welcome in wide-ranging activities while every effort is being made to provide a level playing field to the domestic industry and protect national interests.

Table 2
Foreign Investment Flows by Different Categories

(US $ million)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	April-Nov.* 1998-99	April-Nov.* 1999-00
A. Direct Investment	315	586	1314	2144	2821	3557	2462	1610	1330
a. RBI automatic route	42	89	171	169	135	202	179	109	120
b. SIA/FIPB route	222	280	701	1249	1922	2754	1821	1252	867
c. NRI(40%& 100%)	51	217	442	715	639	241	62	48	48
d. Acquisition of Shares$	-	-	-	11	125	360	400	201	295
B. Portfolio Investment	244	3567	3824	2748	3312	1828	-61	-722	1341
a. FIIs #	1	1665	1503	2009	1926	979	-390	-791	831
b. Euro equities @	240	1520	2082	683	1366	645	270	15	401
c. Offshore funds & others	3	382	239	56	20	204	59	54	109
Total A+B	**559**	**4153**	**5138**	**4892**	**6133**	**5385**	**2401**	**888**	**2671**

Source: RBI.
* Provisional.
$Relates to acquisition of shares of Indian companies by non-residents under Section 29 of FERA.
\# Represent fresh inflow/outflow of funds by FIs.
@ Figures represent GDR amounts raised abroad by the Indian Corporates.

Foreign Direct Investment (FDI)

10. Foreign Direct Investment (FDI) inflows into developing countries continue to remain sluggish. India was no exception to this. In India, FDI inflows declined from US $ 3557 million in 1997-98 to US $ 2462 million in 1998-99. The declining trend continued during 1999-2000. During the first eight months of 1999-2000, FDI was lower at US $ 1330 million compared to US $ 1610 million during the corresponding period of the previous year. The details of FDI inflows since 1992-93 are indicated in Table 2.

11. However, what is a cause of concern is that the share of India in FDI flows to developing countries also declined from 1.9 percent in 1997 to 1.4 percent in 1998. Further modifications have been made in the FDI policy by which 34 categories/groups of high priority industries, as per National Industrial Classification, qualify for automatic approval from 50 per cent to 100 per cent FDI depending on the nature of activity. Remaining activities require approval of Foreign Investment Promotion Board

Review of Policy Reforms

12. While formulating the Plan, several areas were identified in the industrial sector for urgent Government intervention/attention to realise a target of 8.2 percent annual growth rate. These are:- (i) Disinvestment of public enterprises, (ii) Closure of non-revivable sick public enterprises, (iii) Removal of regional imbalances in industrial development, (iv) Review and revamping of BIFR mechanism, (v) Policy and procedural reforms in the States, (vi) Feedstock and pricing policy for fertilizers, (vii) Review of Sugar Policy (viii) Review of pharmaceutical pricing policy, (ix) Review of reservation policy for small scale industry, particularly for critical export industries such as toys, garments and leather Goods, (x) Review and modifications of food laws, and (xi) Policy and fiscal

measures for developing packaging industry for increasing export of processed foods. However, not much appears to have been done so far in this direction. The progress is discussed in the subsequent paragraphs.

Disinvestment of Public Enterprises

13. The progress made on disinvestment has been very slow. Since 1996 and up to August, 1999, the Disinvestment Commission submitted 12 reports covering 58 enterprises. It recommended disinvestment of various types: strategic sale (28 enterprises), trade sale (8 units), equity sale (5 units), closure (5 units), decision deferred (11 units) and no disinvestment recommended (1 unit). Out of the 46 PSEs for which disinvestment/closure was recommended by the Disinvestment Commission, the Government decided only on 14 units - strategic sale (6 units), trade sale (4 units), closure/sale of assets(1 unit) and offer of shares/GDR route (3 units). Thus the decision was available only for less than one-third of the recommended cases. In the case of three units, namely, Indian Oil Corporation Ltd. (IOC), Videsh Sanchar Nigam Ltd. (VSNL) and Indian Airlines (IA), the Government has decided on disinvestments without reference to the Commission; for the decision on IOC and VSNL preceded the constitution of the Disinvestment Commission while in the case of Indian Airlines recommendations by the Kelkar Committee were available. In the case of a number of companies, financial restructuring has been/is being done as a prelude to disinvestment so as to increase shareholder value.

14. In financial terms, a target of Rs.4,800 crore of disinvestment was set for 1997-98 but only Rs.902 crore was realised. The performance during 1998-99 was somewhat better with a realisation of Rs.5,371 crore from disinvestment as against the target of Rs.5,000 crore, but this was primarily due to cross-holding of shares by the oil companies. The performance during 1999-2000 was still worse with realisation of a meagre Rs. 1,585 crore as against a target of Rs.10,000 crore for the whole year.

15. The Plan also stressed the need to expedite decisions on important issues such as creation of Disinvestment Fund, offering shares in the domestic retail market, revamping of Voluntary Retirement Scheme (VRS), Employee Pension-cum-Insurance Scheme, Counseling Service to those taking VRS and providing safeguards to officers and staff for bona fide commercial decisions.

16. However, the Government is yet to take decisions on these and a number of general recommendations made by the Commission, which also include broad basing the Public Enterprise Selection Board (PSEB), bringing the salaries and incentives for top management in line with the industry in a gradual manner, grant of autonomy in price fixation of products and services, setting up of a Pre-Investigation Board to evaluate instances of malfeasance in PSEs and empowerment of Boards of Directors to transfer assets to a subsidiary for the purpose of outright sale . On specific decisions on disinvestment also, many a decision is yet to be taken. More importantly, even where decisions have been taken, the actual progress of disinvestment is rather unsatisfactory.

17. The administrative Ministries/Departments of the Central Government need to play a more pro-active role in implementing the Government decisions with utmost speed. To speed up the disinvestment process, the Government has now set up a separate Department of Disinvestment. However, for the process of disinvestment to be accelerated as a part of regeneration of national economy, wholehearted commitment by the administrative Ministries is absolutely essential. The policy of the Government, as enunciated by the Finance Minister in his latest budget speech, has these highlights:

- Restructure and revive potentially viable PSUs;
- Close down PSUs which cannot be revived;
- Bring down Government equity in all non-strategic PSUs to 26 percent or lower, if necessary; and
- Fully protect the interests of workers.

18. However, while the strategic sales of the PSEs will be processed in the Department of Disinvestment, the administrative control of such PSEs will continue to vest in the concerned administrative Ministries/ Departments. Besides, the Government is reportedly proposing to reconstitute the Disinvestment Commission, which ceased to exist on expiry of its term, and is thinking of setting up an Advisory Committee on Disinvestment. Thus, there are far too many agencies concerned with disinvestment of PSEs. This does not appear to be a satisfactory arrangement.

Closure of Non-revivable Sick Public Enterprises

19. There are as many as 78 PSEs which have been incurring huge losses continuously for more than three years. Many of these enterprises are not seen to serve any socio-economic purpose either. The Plan document dealt with the issue and recommended that hard decisions would need to be taken on units which are not serving any socio-economic purpose and cannot be revived at a reasonable cost and in a limited time-frame. Not a single such chronic loss-making Public Sector Enterprise has been closed down so far, it is noted.

Removal of Regional Imbalances in Industrial Development

20. The Growth Centres scheme and Transport Subsidy Scheme were initiated as Centrally Sponsored Schemes (CSS) to promote industrialization of backward areas and promote industries in hilly, remote and inaccessible areas of the country.

21. The funding pattern of Growth Centres envisaged an equity contribution of Rs.10 crore by the Centre, and Rs.5 crore by the concerned State, Rs.4 crore including Rs.2 crore as equity from financial institutions, Rs.1 crore from nationalized banks and Rs.10 crore as market borrowings - adding up to Rs.30 crore per Growth Centre. The Growth Centres identified are 71; of them 68 have been approved and Central assistance of Rs.276.75 crore has been released till 15.6.99. This includes Rs. 10 crore each - which is the full Central Government share - for 15 approved Growth Centres which are at an advanced stage of development. The implementation of the scheme has been rather unsatisfactory. Too many Growth Centres have been taken up at the same time, resulting in thin spread of extremely scarce resources over a large number of Growth Centres. Besides, it has not been possible to mobilise market borrowings for the Growth Centres as envisaged in the original scheme. More important, industrially advanced states have been able to mobilise financial and managerial resources and make good progress, whereas there has been not much progress in industrially backward states/most backward regions. Thus, instead of reducing regional imbalances in industrial development, the scheme has only aggravated them. There is a proposal to transfer the scheme to the States along with funds. However, this is not likely to remedy the situation, but may further worsen it.

22. Under the Transport Subsidy Scheme, subsidy at rates ranging from 50 per cent to 90 per cent on the transport cost incurred on movement of raw materials and finished goods from/to designated rail heads/ports is provided to industrial units in identified areas, except plantations, refineries and power generation units. The scheme works on reimbursement basis. Since the inception of the scheme in July 1971, an amount of Rs.474.97 crore has been reimbursed to States/Union Territories up to July, 1999. The scheme has been extended upto 31.3.2007 for the North Eastern States; it was valid upto 31.3.2000 for other States. A proposal to transfer the Transport Subsidy Scheme to States along with funds is under consideration of the Government.

Review and Revamping of BIFR mechanism

23. The working of BIFR has left a great deal to be desired; the law has several drawbacks. First, the stage at which sick industrial units are referred to the BIFR does not leave much scope for their revival. As per the law, erosion of net worth is considered as the basis for referral to BIFR. This is much worse than debt default. When a company has lost so much as to erode its net worth, probability of a successful turnaround becomes very low. Further, BIFR has been taking a rather long time to come up with an appropriate revival plan. During this period, the units which are already sick are neither able to get any loans from the lending institutions/banks nor raise any market borrowings or even credit from their suppliers. This results in severe disruption in their operations and often closure of operations. As a result, the sick units soon reach a stage from where they can not be revived. Besides, it has not been possible to close down a single unit, whether in private or in public sector, based on BIFR's recommendations. The provisions of Sick Industries Companies Act (SICA) have also been grossly misused by unscrupulous promoters. An automatic and indefinite stay on the claims of creditors with mere reference to BIFR has induced many debt defaulters artificially to wipe out their net worth and seek protection under BIFR. The Ninth Plan suggested that the entire system and working of the BIFR, including the criteria for identification of industrial sickness and reference to BIFR need to be reviewed and suitably modified to make it an effective instrument of revival of sick industrial units. So far, there has not been any progress in this direction. In fact, the focus on revival needs to be considered. Where revival appears possible, expeditious decisions should be taken and if the chances of revival appear very slim, instead of protracted consideration by BIFR, recourse should be had to winding up/closure of the unit with, of course, a suitable safety net for the workers. One of the steps could be the repeal of SICA Act and replacing it with bankruptcy laws. This would facilitate closure of sick industries or their take-over by more efficient units, help in revival of marginal units and de-freezing of their assets as well as facilitate recovery of loans by banks/financial institutions and thus bring down the level of their Non-Performing Assets (NPAs). Additionally, in the case of sick PSEs referred to BIFR, it involves repeated references to various Government Departments and consequential delays. It is imperative to devise an alternative mechanism for such sick units to provide for a single-point decision-making authority with technical expertise.

Policy and Procedural Reforms in States

24. The process of liberalisation in the industrial sector has advanced considerably in the Central sector. Industrial licensing has been eliminated for all but a handful of industries (a short list of six industries) and the list of industries reserved for the public sector has been reduced to four. The remaining controls at the Central Government

level need to be reviewed for further liberalization. Indian industry still suffers from a plethora of controls and regulations relating to matters in the purview of States and these controls cumulatively impose a heavy burden of delay and even harassment of entrepreneurs. A thorough revamp of these controls and procedures at the State Government level would help create a climate conducive to Indian industry to flourish.

Feedstock and Pricing Policy for Fertilizers

25. Among the key objectives of the Ninth Plan is a long-term feedstock policy for the fertilizer sector. In the last few years, nitrogenous fertilizer plants have been established based mainly on natural gas. Realizing the constraints on the availability of natural gas, Department of Fertilizers has set up a Core Group of Fertilizer Companies to explore the feasibility of importing LNG (liquefied natural gas). The project is capital-intensive and the imports may be organized by floating a consortium of fertilizer companies, along with other interested economic operators, for fertilizers sector in particular and other complementary sectors such as power, domestic fuel, etc. in general. The Core Group has submitted its report, which is being examined.

26. The Ninth Plan envisaged decontrol of all the three types of fertilizers i.e., nitrogenous, phosphatic and potash with the Central Government providing a flat rate of subsidy per unit of each type of fertilizer. A High Powered Committee (HPC) was constituted to review the existing system of subsidization of nitrogenous fertilisers. The Committee has suggested an alternative broad-based, scientific and transparent methodology and recommended measures for greater cohesiveness in the policies applicable to different segments of the industry. The report of the Committee was submitted in April, 1998 and is under consideration. An early decision is considered imperative, given the importance of fertilizer pricing and subsidization in an overall policy environment impinging on the growth and development of the fertilizer industry as well as agricultural economy.

Sugar Policy

27. The sugar industry was subject to compulsory licensing at the commencement of the Ninth Plan. The sugar industry was delicensed in September, 1998. For the purpose of taking investment intentions on record, filing of an Industrial Entrepreneur Memorandum would suffice and no separate registration would be required. The minimum distance criteria of 15 Kilometres between two sugar factories has, however, been retained. While the capacity creation has been delicensed, the pricing and distribution controls remain in force. Under this system, 40 percent of the sugar production is lifted as 'levy' by the Centre for Public Distribution System (PDS) at ex-factory price determined by the Government. The balance 60 percent can be sold by sugar mills at market prices, but the sale is regulated by Government's release mechanism. Further, the industry pays sugar cane price to the farmer on the basis of a State Advised Price (SAP), which is much higher than the Statutory Minimum Price (SMP) — the basis for fixing the 'levy' price of sugar. Tthe Government has now increased the price of PDS sugar and income tax payees have been made ineligible for PDS. The next logical step, it was suggested, would be completely to decontrol the sugar industry by doing away with the system of 'levy' and 'non-levy' sugar.

Pharmaceutical Pricing Policy

28. Pharmaceuticals industry has been recognised as one of the important knowledge-based industries where the country has comparative advantage. The Government has set up two high level committees to review the present drug policy with the aim of reducing rigours of price control where they have become counter-productive and to identify required support to Indian pharmaceutical companies to undertake domestic R&D. It is imperative gradually to move away from price control on drugs. It has also been decided to permit up to 74 percent foreign equity under the automatic route so as to promote Foreign Direct Investment (FDI). There is also need for setting up of a National Drug Authority.

Review and Modification of Food Laws and Drug & Cosmetics Act

29. The Ninth Plan has observed that many provisions of the Food Laws and their implementation strategy have created hurdles in the way of growth and development of food processing industry and trade. Particularly, the Prevention of Food Adulteration Act as well as Rules under it has been a source of considerable harassment. The standards are unrealistic and there is more emphasis on policing than on prevention of adulteration. It has been recommended that the various food laws would need to be reviewed and suitably modified at a very early date. However, there has not been appreciable progress in the modification of Food Laws. The Drugs & Cosmetics Act also needs to be reviewed so as to incorporate the provisions of WHO-Good Manufacturing Practices (WHO-GMP).

Policy & Fiscal measures for Packaging Industry for Increasing Export of Processed Foods

30. Packaging industry for processed foods, it has been observed, is yet to develop and there is a wide gap

between the indigenous and contemporary packaging practices of food products. The cost of packaging is also very high. The Ninth Plan has recommended that appropriate policy and fiscal measures are required to encourage scientific development of packaging industry. However, there appears to be no progress towards this.

Village and Small Industries

31. The Village and Small Industry plays a vital role in industrial production, employment generation and exports. The Ninth Plan accorded high priority to this sector , considering its vast potential. In the context of growing domestic and international competition, several reforms were made by the Government for the small scale and tiny sectors. These have been highlighted in Box No. 3.

BOX No. 3

Reforms Initiated For the Small Scale and Tiny Sectors

Definition of *small scale sector* has been revised enhancing the ceiling for plant and machinery from Rs.5.00 lakh to Rs.25.00 lakh for tiny units and reduction from Rs.300 lakh to Rs. 100 lakh for small scale units as a way of helping them to modernise and upgrade their technologies and facilitating them to expand/diversify for becoming more competitive.

Credit up to 60 per cent under priority sector-lending to Small Scale Industry (SSI)) sector has been earmarked for the tiny sector for ensuring that the credit is not cornered by large units within the small scale sector.

Gradual enhancement of Excise duty exemption limit for the small scale sector including tiny units from Rs.50 lakh as on 1.4.1997 to Rs.100 lakh in August, 2000.

The National Small Industrial Corporation (NSIC) has been directed to earmark 40 per cent of the financial assistance to tiny units for machinery on hire purchase basis, marketing support, technology assistance and training facilities.

For promotion of tiny sector, a separate package of incentives and facilities has been provided.

In order to secure timely payments to SSI units for supplies made by them to large industrial units, the Interest on Delayed Payments to Small Scale and Ancillary Industrial Undertakings Act has been amended. The amendment makes it compulsory that the payments to SSI units be made within 120 days; after it the buyers will have to pay penal interest @ 1.5 times the prime lending rate charged by the State Bank of India for any delay beyond the agreed period not exceeding 120 days.

32. The SSI Sector has, in general, been able to achieve 1 to 2 percentage points higher growth than the growth achieved by the industries sector as a whole. In the more recent past, its growth appears to be getting affected by competition in the face of globalisation and liberalisation of imports. The rate of employment growth in the small scale sector also appears to be slowing down. SSI's main problems are technological obsolesence of both products and processes, inadequate availability of credit, managerial, financial and marketing weaknesses and cumbersome rules, regulations and procedural hassles.

33. The performance of the Prime Minister's Rozgar Yojana (PMRY) would help create new ventures by beneficiaries and also help in making repayment of loans. The target of setting up 2.2 lakh business ventures annually is being, more or less, achieved. So far, 10,78,395 beneficiaries have been provided loans/credit amounting to Rs.6,203 crore by the banks under PMRY (from 1993 to December 1999).

34. In the KVI (Khadi & Village Industry) sector, the target of creating 20 lakh new jobs in the Eigth Plan could not be achieved. by the KVIC. Khadi & Village Industries Commission (KVIC) has reported that 3.86 lakh new full time jobs were created under the Rural Employment Generation Programme (REGP) in the KVI sector up to 1998-99. The KVIC now focuses attention on creation of new jobs in rural industries by adopting a project approach and judiciously utilising bank finance.

35. In the handlooms sector, a scheme of setting up of 3000 Handloom Development Centres (HDCs) and 500 Qality Dyeing Units (QDUs) was launched in 1993. An evaluation of the performance would show that only 1868 HDCs and 391 QDUs were set up up to 1999-2000. It has been decided to terminate the scheme.

Reservation of Products for Small Scale Sector

36. SSI is producing about 8000 items, out of which 812 items are reserved for production in the Small Scale Sector. Reservation, in the sense of a legal ban on production by large units, is a unique instrument used only in India The reserved items constitute about 28 per cent by value of the total SSI production. Several recent developments call for an urgent review of the reservation policy:

(i) In a number of cases e.g. toys, auto components, garments and leather goods, there is a vast export potential but the country is unable to exploit this potential because it is not possible to go in for the desired technology and scale of operations to achieve international competitiveness within the permissible Rs 1-crore investment limit for plant and machinery for the Small Scale Sector. Many of these sectors have been clamouring for de-reservation or at least a very substantial increase in the investment limit.

(ii) Out of 812 reserved items, 643 items are now on OGL and the remaining items will also be on OGL from 1st April 2001. The Small Scale Sector has, therefore, to meet competition from large companies abroad including those located in neighbouring SAARC countries like Nepal, Sri Lanka and Bangladesh. Nepal already has duty-free access while Sri Lanka has preferential access. This means that domestic producers are not allowed to manufacture these products on a larger scale but these products will be importable from outside. This is clearly anomalous and calls for revising restrictions in India to allow domestic producers to increase investment levels to reach maximum scale.

(iii) In some areas, there are a few large scale producers having "carry on business" licenses. While the Small Scale Sector is not able to offer them any competition, the reservation policy is precluding any competition from other large scale manufacturers. Thus, the fruits of the reservation policy are reaped by the existing large scale units, to the detriment of the consumers and the economy in general.

(iv) Statistics show that since the policy of reservation was introduced, the growth rate of Small Scale Sector in non-reserved areas has been higher than in reserved areas. This suggests that Small Scale production has done better where there is competition from middle scale units rather than where competition is eliminated.

37. For all these reasons, there is a strong case for reviewing the reservation policy to allow upgradation of technology in the Small Scale Sector, increased production, employment and exports as well as benefits to the consumer. The Abid Hussain Committee had recommended de-reservation accompanied by appropriate assistance to Small Scale Sector in terms of information base, availability of technology, technology transfer, improved credit availability and infra-structural and marketing support. These recommendations deserve careful consideration. At the very least, reservation should be abolished in areas which are critical for exports with a phasing out of reservation in other areas. The Government has recently set up a Study Group under the Chairmanship of Member, Planning Commission, to suggest measures for healthy growth and development of Small Scale Enterprises.

Plan Outlays and Expenditure

38. The total outlay approved for the Ninth Plan for industry and minerals, including village and small scale industries, was Rs.74,516.95 crore — comprising Rs.61,032.95 crore in the Central sector and Rs.13,484.00 crore in the State sector. The Central sector outlay was to be funded through Internal and Extra Budgetary Resources (IEBR) to the tune of Rs.46,397.32 crore and Gross Budgetary Support (GBS) of Rs.14,635.63 crore. The state outlay was to be funded through the State Plans.

39. The actual expenditure during first three years of the Plan (actual 1997-98 + revised estimates for 1998-99 and 1999-2000 BE) in the central sector is Rs.23,779.84 crore at current prices and Rs.21,128.94 crore at constant 1996-97 prices, representing 34.62 per cent of the approved Ninth Plan outlay. The gross budgetary support during first three years of the Plan is Rs.7,308.77 crore at current prices and Rs.6,502.17 crore at constant 1996-97 prices, representing 44.43 per cent of the approved gross budgetary support for the Plan.

40. Following statements provide details on outlays and expenditure.

Annexure 1 : Ministry-wise outlays and BS at current prices.
Annexure 2 : Ministry-wise outlays and BS at constant 1996-97 prices.
Annexure 3 : Company/organisation-wise outlays and BS at current prices.
Annexure 4 : Company/organisation-wise outlays and BS at constant prices.
Annexure 5 : Sub-sector wise Outlays and Expenditure under Village & Small Industries Sector at Current Prices
Annexure 6 : Sub-sector wise Outlays and Expenditure under Village & Small Industries Sector at Constant Prices

5

Problems Facing Indian Industry and Challenges

41. On the domestic front, though the Indian industry is moving forward on the track of recovery as is evidenced by its performance during first half of the current financial year, there are some major constraints faced by almost all sectors: less- than expected pick-up in demand, inadequacy of infrastructure and investment, anomalies in classification in excise duty and high excise duty rates after rationalisation and anomalies in export tariffs.

42. On the export front, inadequacy of infrastructure, uncompetitive export interest rates, high guarantee charges, high cost of power and freights, high port charges and congestion, Countervailing Duty (CVD) not equal to

excise duty in many sectors are the major bottlenecks. Other major problems are: slow growth in CIS markets, decline in markets in South-East Asia, devaluation of South-East Asian currencies, lack of coordinated efforts to face anti-dumping action against Indian exports and non-tariff barriers being imposed by developed countries.

WTO and Globalisation

43. The TRIPS agreement under World Trade Organisation (WTO) is one of the main challenges in the area of knowledge and technology for Indian industry. The Agreement sets out the minimum standards of protection to be adopted by the parties, in respect of (a) Copyrights and related rights; (b) Trade Marks; (c) Geographical Indications; (d) Industrial Designs; (e) Patents; (f) Lay out Designs of Integrated Circuits; and (g) Protection of Undisclosed Information (trade secrets) and enforcement of these. A transition period of five years is available to the developing countries to give effect to provisions of the Agreement. Countries that do not provide product patents in certain areas can delay the provisions of product patents by another five years. However, they have to provide exclusive marketing rights for products which obtain patents after 1.1.1995. As per India's own obligations under WTO Agreement, the Patents (Amendments) Act, 1999 was passed in March, 1999 to provide for Exclusive Marketing Rights (EMR).

44. The basic obligation in the area of patents is that inventions in all fields of technology, whether products or processes, shall be patentable if they meet three tests of being novel, involving an inventive step and being capable of industrial application. In addition to the general security exemption which applies to the entire TRIPS Agreement, exclusions from patentability are permissible for inventions whose commercial exploitation is necessary to protect public order or morality, human, animal, plant life or health, or to avoid serious prejudice to the environment. Diagnostic, therapeutic and surgical methods for treatment of humans or animals and plants and animals other than micro-organisms may also be excluded from patentability. The TRIPS Agreement provides for a patent term of 20 years. A Bill to make these and other changes has been introduced in Parliament and has been referred to a Joint Select Committee of the two Houses.

45. India has been highlighting its concerns arising out of the imbalances in several of the WTO Agreements, including those related to antidumping, subsidies, intellectual property, trade- related investment measures, and non-realization of benefits to the extent expected from Agreements such as those on Textiles and Agriculture. While emphasizing the necessity of operationalising the Special and Differential Treatment clauses in the WTO Agreement, India has also opposed the inclusion of non-trade issues, like labour standards, in the agenda of WTO.

46. In the prevailing economic environment, there is hardly any alternative to globalisation and opening up of the economy. For a long time, the country has been having Quantitative Restrictions (QRs) on Balance- Of- Payments (BOP) considerations. With a good improvement in the BOP on the one hand and the country looking aggressively for Foreign Direct Investment on the other, the removal of QRs has become inevitable. Out of about 1400 items on which QRs were there, QRs on 715 items have been removed in the Budget for 2000-01 and the remaining QRs are to be removed on Ist April, 2001. Thus, the only protection available to the domestic industries will have to be through the mechanism of tariffs. As is well-known, high tariff rates lead to high cost industries. Since the process of opening up of the economy was started in 1991, the tariff rates have been gradually brought down to an average of 30 per cent today. Successive Finance Ministers have announced that these will be brought down to the levels prevalent in East Asian countries, i.e., about 10 percent. It is imperative to lay down a clear time-frame for a phased reduction of the import tariffs from the present level to 10 percent, while avoiding anomalies and tariff peaks, to enable Indian industry to respond to this challenge.

47. The Indian industry suffers from poor infrastructure and obsolete technology. Therefore, it needs to upgrade its technology and management skills. But for this to happen, technology transfer from developed countries — without any technical and trade barriers — would be a pre-requisite. The new global regime has thrown up new challenges as well as opportunities for the Indian industries. On the one hand, the country will have to face these challenges and make all out efforts on the other to exploit the vast opportunities that become available consequent to WTO regime. New initiatives will have to be launched in concert with the developing countries to mitigate the rigours of the international regime and to secure a more favourable deal at the next review of the TRIPS Agreement in the WTO. Further, research and development capabilities in general and industry-related in particular, would need to be strengthened. The industry-R&D linkage at present is not as strong as in developed countries. While it is quite likely that the competitive market forces would throw up institutional mechanisms, including skills, for this linkage to get established, the State would intervene as a matter of policy and strategy, including adoption of comprehensive R&D approach for creating competitive and dynamic industry-R&D linkages to meet the challenges of TRIPS.

48. The iron and steel industry, an important basic industry, has been facing a major crisis with over-capacity,

sluggish demand, weak overseas market and depressed prices in both domestic and international markets. This, coupled with dumping of steel products from CIS and South East Asian countries and increase in input costs, has severely affected profitability of the industry. Besides depressed international markets, exports have also been adversely affected by depreciation of currencies in the South East Asian Region. There has been some improvement in the situation in the recent past, but with a large capacity in the pipeline the outlook for the steel industry appears rather gloomy. Suitable remedial measures are urgently called for to phase out additional steel capacity in the country, carry out business and financial restructuring of public sector steel plants and improve health and competitiveness of the steel industry in general.

Conclusion

49. The performance of Indian industry during 1999-2000 indicates that the industry is on the path of recovery with the overall growth in general index being 8.3 percent. Revival of the capital market coupled with the return of small investor to the primary market due to improvement in the investment climate would be conducive to the prospects of resource mobilisation by new/unlisted companies from the primary market. This would help in accelerating the economic activity. However, some of the factors like continued demand slowdown, lack of infrastructure facilities, high excise rates and anomalies in export tarrifs continue to be the major constraints for the Indian industry as a whole. Over-capacity in some of the sectors like steel call for suitable measures to phase out the capacity addition. Concerted efforts would have to be made both at national and international levels to face the challenges of the WTO commitments and to reap the potential advantage. Efforts must be made to create a competitive environment in which Indian Industry can improve its efficiency and become more competitive. Further simplification of procedures especially at State level is necessary.

Annexure-1

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Ministry/Department wise Approved Ninth Plan Outlays and Expenditure
(AT CURRENT PRICES)

(Rupees in Crore)

Sl. No.	Name of the Ministry/Deptt.	NINTH PLAN 1997-2002 OUTLAY		ANNUAL PLAN 1997-98 ACTUAL EXPENDITURE		ANNUAL PLAN 1998-99 REVISED ESTIMATES		ANNUAL PLAN 1999-2000 BUDGET ESTIMATES	
		OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
A.	Industry & Minerals								
1	Steel	16232.50	85.50	2328.83	17.50	1839.93	14.50	2082.40	12.50
2	Mines	7753.96	844.96	400.83	140.78	566.88	157.31	1356.62	171.26
3	Fertilisers	11013.00	1043.00	1324.38	128.77	989.90	195.46	1828.00	165.00
4	Petroleum & Natural Gas	4386.82	0.00	461.85	0.00	443.83	0.00	338.79	0.00
5	Chemicals & Petro-Chem	6760.00	171.00	1136.21	32.45	930.88	38.00	509.65	38.00
6	Industrial Development	1353.75	1353.75	318.37	318.37	420.60	420.60	180.77	180.77
7	Industrial Policy & Prom.	570.00	570.00	112.35	112.35	128.49	128.49	137.23	137.23
8	Heavy Industry	2027.00	551.00	252.09	105.73	298.28	119.93	346.31	120.00
9	Surface Transport	161.80	161.80	25.70	25.70	33.00	33.00	33.00	33.00
10	Atomic Energy	1218.50	850.00	122.70	106.80	164.32	125.32	287.45	220.45
11	Sugar & Edible Oils	1.80	1.80	0.36	0.36	0.30	0.30	0.40	0.40
12	Consumer Affairs	28.37	28.37	4.80	4.80	6.36	6.36	8.50	8.50
13	Biotechnology	6.30	6.30	2.29	2.29	1.27	1.27	0.05	0.05
14	Economic Affairs (I&M)	2544.08	2544.08	298.86	298.86	226.49	226.49	112.15	112.15
15	Textiles (I&M)	331.01	331.01	44.36	39.92	44.08	40.08	61.65	55.65
16	DSIR	21.50	21.50	1.00	1.00	5.00	5.00	5.00	5.00
17	Supply	22.19	22.19	4.54	4.54	5.00	5.00	5.00	5.00
18	Commerce	893.75	859.75	179.52	179.52	189.70	189.70	224.29	201.53
19	Ocean Development	84.23	84.23	6.40	6.40	18.44	18.44	13.50	13.50
	Total (A)	**55410.56**	**9530.24**	**7025.44**	**1526.14**	**6312.75**	**1725.25**	**7530.76**	**1479.99**
B.	VSI Sector								
1	SSI & RI	4303.85	3786.85	735.14	631.64	711.08	596.08	742.25	627.25
2	Textiles (VSI)	1083.50	1083.50	194.30	194.30	200.80	200.80	210.35	210.35
3	Food processing Industry	235.04	235.04	22.87	22.87	44.10	44.10	50.00	50.00
	Total (B)	**5622.39**	**5105.39**	**952.31**	**848.81**	**955.98**	**840.98**	**1002.60**	**887.60**
	Grand Total	**61032.95**	**14635.63**	**7977.75**	**2374.95**	**7268.73**	**2566.23**	**8533.36**	**2367.59**

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Annexure-2

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Ministry/Department wise Approved Ninth Plan Outlays and Expenditure
(AT CONSTANT PRICES)
(1996-97 Prices)

(Rupees in Crore)

Sl. No	Name of the Ministry/Deptt.	NINTH PLAN 1997-2002 OUTLAY		ANNUAL PLAN 1997-98 ACTUAL EXPENDITURE		ANNUAL PLAN 1998-99 REVISED ESTIMATES		ANNUAL PLAN 1999-2000 BUDGET ESTIMATES		TOTAL ANTICIPATED EXPENDITURE 1997-2000		Percentage Utilisation Of Ninth Plan Outlay	
		OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
A.	**Industry & Minerals**												
1	Steel	16232.50	85.50	2204.50	16.57	1630.71	12.85	1741.14	10.45	5576.34	39.87	34.35	46.63
2	Mines	7753.96	844.96	379.43	133.26	502.42	139.42	1134.30	143.19	2016.15	415.88	26.00	49.22
3	Fertilisers	11013.00	1043.00	1253.67	121.90	877.34	173.23	1528.43	137.96	3659.44	433.09	33.23	41.52
4	Petroleum & Natural Gas	4386.82	0.00	437.19	0.00	393.36	0.00	283.27	0.00	1113.82	0.00	25.39	N.A.
5	Chemicals & Petro-Chem	6760.00	171.00	1075.55	30.72	825.03	33.68	426.13	31.77	2326.71	96.17	34.42	56.24
6	Industrial Development	1353.75	1353.75	301.37	301.37	372.77	372.77	151.15	151.15	825.29	825.29	60.96	60.96
7	Industrial Policy & Prom.	570.00	570.00	106.35	106.35	113.88	113.88	114.74	114.74	334.97	334.97	58.77	58.77
8	Heavy Industry	2027.00	551.00	238.63	100.09	264.36	106.29	289.56	100.33	792.55	306.71	39.10	55.66
9	Surface Transport	161.80	161.80	24.33	24.33	29.25	29.25	27.59	27.59	81.17	81.17	50.17	50.17
10	Atomic Energy	1218.50	850.00	116.15	101.10	145.64	111.07	240.34	184.32	502.13	396.49	41.21	46.65
11	Sugar & Edible Oils	1.80	1.80	0.34	0.34	0.27	0.27	0.33	0.33	0.94	0.94	52.28	52.28
12	Consumer Affairs	28.37	28.37	4.54	4.54	5.64	5.64	7.11	7.11	17.29	17.29	60.94	60.94
13	Biotechnology	6.30	6.30	2.17	2.17	1.13	1.13	0.04	0.04	3.34	3.34	52.94	52.94
14	Economic Affairs (I&M)	2544.08	2544.08	282.90	282.90	200.74	200.74	93.77	93.77	577.41	577.41	22.70	22.70
15	Textiles (I&M)	331.01	331.01	41.99	37.79	39.07	35.52	51.55	46.53	132.61	119.84	40.06	36.20
16	DSIR	21.50	21.50	0.95	0.95	4.43	4.43	4.18	4.18	9.56	9.56	44.46	44.46
17	Supply	22.19	22.19	4.30	4.30	4.43	4.43	4.18	4.18	12.91	12.91	58.18	58.18
18	Commerce	893.75	859.75	169.94	169.94	168.13	168.13	187.53	168.50	525.60	506.57	58.81	58.92
19	Ocean Development	84.23	84.23	6.06	6.06	16.34	16.34	11.29	11.29	33.69	33.69	40.00	40.00
	Total (A)	**55410.56**	**9530.24**	**6650.36**	**1444.66**	**5594.92**	**1529.07**	**6296.62**	**1237.45**	**18541.90**	**4211.18**	**33.46**	**44.19**
B.	**VSI Sector**												
1	SSI & RI	4303.85	3786.85	695.89	597.92	630.22	528.30	620.61	524.46	1946.72	1650.67	45.23	43.59
2	Textiles (VSI)	1083.50	1083.50	183.93	183.93	177.97	177.97	175.88	175.88	537.77	537.77	49.63	49.63
3	Food procssing Industry	235.04	235.04	21.65	21.65	39.09	39.09	41.81	41.81	102.54	102.54	43.63	43.63
	Total (B)	**5622.39**	**5105.39**	**901.47**	**803.49**	**847.27**	**745.35**	**838.29**	**742.14**	**2587.04**	**2290.98**	**46.01**	**44.87**
	Grand Total	**61032.95**	**14635.63**	**7551.83**	**2248.15**	**6442.20**	**2274.42**	**7134.92**	**1979.59**	**21128.94**	**6502.17**	**34.62**	**44.43**

Annexure-3

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Company wise/Organisation wise Approved Ninth Plan Outlay and Expenditure
(AT CURRENT PRICES)

(Rupees in Crore)

Undertaking Scheme	NINTH PLAN 1997-2002 OUTLAY		Annual Plan 1997-98 ACTUALS		Annual Plan 1998-99 REVISED ESTIMATES		Annual Plan 1999-2000 BUDGET ESTIMATES	
	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
1	2	3	4	5	6	7	8	9
Ministry of Steel	16232.50	85.50	2328.83	17.50	1839.93	14.50	2082.40	12.50
A. Iron & Steel	13785.00	75.00	2136.22	14.00	1562.23	12.00	1553.90	9.50
1. Steel Authority of India Ltd.	12526.00	5.00	2070.50	0.00	1440.00	0.00	1107.00	0.00
2. Rashtriya Ispat Nigam Ltd.	716.00	0.00	38.00	0.00	55.89	0.00	232.27	0.00
3. Metal Scrap Trade Corpn.	12.00	0.00	0.00	0.00	1.00	0.00	9.00	0.00
4. MECON	34.00	0.00	6.93	0.00	7.50	0.00	6.33	0.00
5. Ferro Scrap Nigam Ltd.	91.00	0.00	6.60	0.00	14.84	0.00	14.80	0.00
6. Hindustan Steel Works Construction Ltd.	25.00	20.00	5.00	5.00	5.00	5.00	5.00	5.00
7. Bharat Refractories Ltd.	39.00	20.00	6.00	6.00	7.00	7.00	3.50	3.50
8. SIIL	57.00	30.00	3.00	3.00	1.00	0.00	26.00	1.00
9. Iron & Steel Mission	285.00	0.00	0.19	0.00	30.00	0.00	150.00	0.00
B. Ferrous Minerals	2447.50	10.50	192.61	3.50	277.70	2.50	528.50	3 00
10. Kudremukh Iron Ore Co.Ltd	601.00	0.00	72.10	0.00	90.00	0.00	170.00	0.00
11. National Mineral Dev. Corpn.	1605.00	0.00	102.79	0.00	170.00	0.00	325.00	0.00
13. Manganese Ore India Ltd.	146.00	0.00	13.06	0.00	15.20	0.00	28.50	0.00
14. Bird Group of Companies	95.50	10.50	4.66	3.50	2.50	2.50	5.00	3.00
II. Ministry of Mines	**7753.96**	**844.96**	**400.83**	**140.78**	**566.88**	**157.31**	**1356.62**	**171.26**
1. Bharat Aluminium Co. Ltd.	839.15	0.00	26.42	0.00	38.26	0.00	130.61	0.00
2. National Aluminium Co. Ltd.	3559.10	0.00	172.67	0.00	257.15	0.00	852.30	0.00
3. Hindustan Copper Ltd.	1280.00	80.00	12.37	12.35	20.00	20.00	43.00	23.00
4. Hindustan Zinc Ltd.	1250.00	0.00	57.29	0.00	110.00	0.00	177.00	0.00
5. Bharat Gold Mines Ltd.	12.00	12.00	5.90	5.90	4.50	4.50	5.00	5.00
6. Mineral Exploration Corpn. Ltd.	80.00	35.00	6.00	6.00	7.00	7.00	10.00	10.00
7. Sikkim Mining Corporation	3.25	3.00	0.16	0.16	0.50	0.50	0.38	0.38
8. Geological Survey of India	585.46	585.46	85.64	85.64	91.50	91.50	101.00	101.00
9. Indian Bureau of Mines	80.00	80.00	18.49	18.49	18.01	18.01	19.88	19.88
10. S&T Programmes	25.00	9.50	7.05	3.40	7.16	3.00	9.45	4.00
11. Construction Programmes	40.00	40.00	8.84	8.84	12.80	12.80	8.00	8.00
III. Department of Fertilizers	**11013.00**	**1043.00**	**1324.38**	**128.77**	**989.90**	**195.46**	**1828.00**	**165.00**
1. FACT Ltd.	294.00	233.00	178.61	0.00	78.23	25.38	35.00	35.00
2. Ferts. Corp. of India	132.00	132.00	55.00	55.00	48.00	48.00	10.00	10.00
3. Hindust. Ferts. Corpn.	390.00	390.00	41.00	41.00	35.00	35.00	84.00	84.00
4. Madras Fertilizers Ltd.	209.00	101.00	81.69	0.00	78.59	61.00	26.00	20.00
5. National Fertilisers	1118.00	0.00	75.24	0.00	77.33	0.00	282.00	0.00
6. Paradeep Phosphate & Chem.	80.00	80.00	49.50	15.00	10.00	10.00	10.00	10.00
7. Pyrites Phosphate & Chem	10.00	10.00	6.00	6.00	1.50	1.50	0.50	0.50
8. Project Develop. India Ltd.	12.00	2.00	2.00	2.00	2.00	0.00	2.00	0.00
9. Rashtriya Chemicals India Ltd.	2700.00	0.00	163.67	0.00	294.91	0.00	393.00	0.00
10. Krishak Bharati Cooperative	3253.00	0.00	33.56	0.00	18.20	0.00	702.00	0.00
11. Indian Farmers Fert. Coop.	2720.00	0.00	628.34	0.00	331.56	0.00	278.00	0.00
12. Others Schemes	95.00	95.00	9.77	9.77	14.58	14.58	5.50	5.50

Annexure-3 *(Contd.)*

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Company wise/Organisation wise Approved Ninth Plan Outlay and Expenditure
(AT CURRENT PRICES)

(Rupees in Crore)

Undertaking Scheme	NINTH PLAN 1997-2002 OUTLAY		Annual Plan 1997-98 ACTUALS		Annual Plan 1998-99 REVISED ESTIMATES		Annual Plan 1999-2000 BUDGET ESTIMATES	
	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
1	2	3	4	5	6	7	8	9
IV. Min. of Petro. & Natural Gas	**4386.82**	**0.00**	**461.85**	**0.00**	**443.83**	**0.00**	**338.79**	**0.00**
A. Petro-Chemical Industries	4054.37	0.00	418.28	0.00	357.83	0.00	222.74	0.00
1. Bongaigaon Refineries	437.70	0.00	7.39	0.00	27.87	0.00	16.56	0.00
2. Bharat Petroleum Corpn. Ltd.	499.70	0.00	0.00	0.00	1.40	0.00	1.20	0.00
3. Cochin Refineries Ltd.	29.90	0.00	0.30	0.00	4.40	0.00	3.70	0.00
4. Hindustan Petro. Corpn.	12 95	0.00	0.00	0.00	0.00	0.00	0.05	0.00
5. Indian Oil Corpn.	986.90	0.00	4.10	0.00	27.62	0.00	72.53	0.00
6. Madras Refineries Ltd.	112.52	0.00	0.00	0.00	0.00	0.00	0.50	0.00
7. Gas Authority of India Ltd.	702.95	0.00	406.49	0.00	296.54	0.00	125.20	0.00
8. Oil & natural Gas Commission	1271.75	0.00	0.00	0.00	0.00	0 00	3.00	0.00
B. Engineering industries	332.45	0.00	43.57	0.00	86.00	0.00	116.05	0.00
1. Indo-Burma Petroleum Co.	16.55	0.00	0 80	0.00	6.00	0.00	6.50	0.00
2. Balmer Lawrie	284.20	0.00	41.37	0.00	80.00	0.00	100.00	0.00
3. Bieco Lawrie	31.70	0.00	1.40	0.00	0.00	0.00	9.55	0.00
V. Deptt. of Chemicals & Petrochem	**6760.00**	**171.00**	**1136.21**	**32.45**	**930.88**	**38.00**	**509.65**	**38.00**
A. Petrochemical Industries	5671.75	20.25	1068.95	11.95	850.50	7.50	429.01	4.01
1. Indian Petrochemicals Coop. Ltd.	5601.50	0.00	1057.00	0.00	843.00	0.00	425.00	0.00
2. Petrofils Cooperative Ltd.	5.00	5 00	2.00	2.00	2.00	2.00	0.01	0.01
3. Other Bodies/Institutions. CIPET, PPDA	65.25	15.25	9.95	9.95	5.50	5.50	4.00	4.00
B. Chemicals & Pharmaceutical Ind.	1088.25	150.75	67.26	20.50	80.38	30.50	80.64	33.99
1. Hindustan Organic Chem. Ltd.	850.00	0.00	45.01	0.00	43.00	0.00	34.00	0.00
2. Hindustan Insecticides Ltd.	75.00	36.85	5.85	4.10	12.38	7.50	12.65	9.00
3. Indian Drugs & Pharmac. Ltd.	0.25	0.25	0.05	0.05	0.05	0.05	0.01	0.01
4. Hindustan Antibiotics Ltd.	13.00	13.00	3.00	3.00	3.00	3.00	3.00	3.00
5. Bengal Chem. & Pharm. Ltd.	51.00	15.00	5.00	5.00	5.50	3.50	13.00	4.00
6. Smith Stainsteet Pharm. Ltd.	1.87	1.87	0.00	0.00	0.00	0.00	0.01	0.01
7. Bengal Immunity Ltd.	1.88	1.88	0.00	0.00	0.00	0.00	0.01	0.01
8. National Institute of Pharmact. Edu. & Res. (NIPER)	82.50	70.00	6.75	6.75	13.00	13.00	13.00	13.00
9. Other Bodies/Institutions (IPFT, CWC, PRDP, CPDS, RENPAP)	12.75	11.90	1.60	1.60	3.45	3.45	4.96	4.96
VI Department of Ind. Dev.and IP&P	**1923.75**	**1923.75**	**430.72**	**430.72**	**549.09**	**549.09**	**318.00**	**318.00**
A. Cement & Non-Metallic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Engineering Ind.	24.00	24.00	4.50	4.50	5.66	5.66	5.75	5.75
C. Other Industries	1298.99	1298.99	321.82	321.82	418.54	418.54	168.42	168.42
D. Other Outlays on I&M	517.00	517.00	103.15	103.15	118.09	118.09	121.03	121.03
E. Secretariat Economic Services	2.00	2.00	0.50	0.50	1.00	1.00	0.60	0.60
F. General Economic Services	81.76	81.76	0.75	0.75	5.80	5.80	22.20	22.20
VII Sugar & Edible Oils	**1.80**	**1.80**	**0.36**	**0.36**	**0.30**	**0.30**	**0.40**	**0.40**

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Annexure-3 *(Contd.)*

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Company wise/Organisation wise Approved Ninth Plan Outlay and Expenditure
(AT CURRENT PRICES)

(Rupees in Crore)

Undertaking Scheme	NINTH PLAN 1997-2002 OUTLAY		Annual Plan 1997-98 ACTUALS		Annual Plan 1998-99 REVISED ESTIMATES		Annual Plan 1999-2000 BUDGET ESTIMATES	
	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
1	2	3	4	5	6	7	8	9
VIII Department of Heavy Ind.	**2027.00**	**551.00**	**252.09**	**105.73**	**298.28**	**119.93**	**346.31**	**120.00**
A. Engineering Industries	1446.98	254.52	172.29	80.40	202.58	79.73	244.67	75.86
1. Andrew Yule	27.52	25.00	7.08	7.08	3.35	0.00	2.82	0.01
2. Bharat Heavy Electricals	800.00	0.00	76.00	0.00	102.00	0.00	134.20	0.00
3. Bharat Bhari Udyog Ltd.	0.38	0.38	0.00	0.00	0.00	0.00	0.20	0.20
4. Braith Waite	17.43	11.43	2.73	2.73	2.00	2.00	1.01	0.01
5. Burn Standard Company Ltd.	23.98	20.00	10.38	10.38	15.00	15.00	30.52	30.52
6. Bharat Brakes & Valves	4.01	0.01	0.00	0.00	0.01	0.01	0.31	0.01
7. Bharat Wagon & Engineering	7.00	0.00	0.00	0.00	0.50	0.00	0.51	0.01
8. Bharat Pro. & Mec. Eng.	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
9. Weigh Bird India	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
10. Jessop	19.20	14.00	4.00	4.00	0.00	0.00	6.20	6.20
11. Lagan Jute	4.55	0.00	0.00	0.00	0.00	0.00	0.01	0.01
12. Braith Burn & Jessop	0.70	0.00	0.00	0.00	0.01	0.01	0.01	0.01
13. RBL	1.24	0.94	0.60	0.60	0.34	0.34	0.01	0.01
14. Bharat Yantra Nigam	2.00	2.00	0.00	0.00	0.30	0.30	0.30	0.30
15. Bharat Heavy Plates & Vessels	36.58	0.00	1.68	0.00	6.00	0.00	9.00	0.00
16. Bharat Pumps & Comp.	10.01	0.01	0.80	0.00	2.04	1.00	0.01	0.01
17. Bridge & Roofs	26.00	0.00	8.31	0.00	4.00	0.00	11.00	0.00
18. Richardson & Crudas	9 00	0.00	1.47	0.00	2.00	0.00	6.70	0.00
19. Triveni Structural Ltd.	7.00	1.00	0.79	0.79	1.76	0.00	0.01	0.01
20. Tungbhadra Steel	7.00	1.00	2.47	0.00	2.00	1.00	5.00	2.00
21. Cycle Corporation	0.01	0.01	2.00	2.00	0.00	0.00	0.00	0.00
22. Engineering Projects	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
23. Heavy Engineering Corpn.	65.00	65.00	20.00	20.00	20.00	20.00	20.00	20.00
24. HMT	252.45	65.00	13.04	13.04	23.00	23.00	0.01	0.01
25. Hindustan Cables	59.02	8.75	6.95	6.95	0.75	0.75	6.00	6.00
26. Instrumentation Ltd.	12.50	2.50	2.85	2.85	4.50	4.50	1.50	1.50
27. Mining & Allied Machinery	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
28. National Instruments	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
29. National Bicycle CIL	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
30. Praga Tools	15.76	5.00	1.00	1.00	5.80	5.80	2.01	2.01
31. Scooters India Ltd.	10.00	10.00	1.38	1.38	0.00	0.00	4.30	4.30
32. High Voltage Direct Current	10.26	10.26	6.00	6.00	4.26	4.26	0.00	0.00
33. Fluid Control Research	17.31	11.16	2.76	1.60	2.96	1.76	3.00	2.70
34. Bharat Opthalmic Glass	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
35. Rehabilitation Ind.	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
B. Consumer Industries	321.69	40.48	73.80	19.38	72.76	17.41	63.64	16.14
36. Bharat Leather	0.01	0.01	0.32	0.32	0.65	0.65	0.01	0.01
37. TAFCO	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
38. NEPA	7.52	7.52	0.00	0.00	5.00	5.00	6.34	6.34
39. Hindustan Paper	145.70	0.00	27.77	0.00	19.01	0.00	23.00	6.00
40. NPPC	1.00	1.00	0.01	0.01	0.01	0.01	0.01	0.01
41. MNPM	0.10	0.10	0.01	0.01	0.01	0.01	0.01	0.01

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Annexure-3 *(Contd.)*

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Company wise/Organisation wise Approved Ninth Plan Outlay and Expenditure
(AT CURRENT PRICES)

(Rupees in Crore)

Undertaking Scheme	NINTH PLAN 1997-2002 OUTLAY		Annual Plan 1997-98 ACTUALS		Annual Plan 1998-99 REVISED ESTIMATES		Annual Plan 1999-2000 BUDGET ESTIMATES	
	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
1	2	3	4	5	6	7	8	9
42. HNL	135.51	0.00	26.65	0.00	35.84	0.00	30.00	0.00
43. Hindustan Salts	6.31	6.31	0.60	0.60	2.45	1.95	2.25	1.75
44. Hindustan Photo Films	3.50	3.50	2.50	2.50	3.34	3.34	0.01	0.01
45. Tyre Corporation	22.03	22.03	15.94	15.94	6.45	6.45	2.00	2.00
C. Cement & Non-Metallic Industries	256.00	256.00	5.95	5.95	22.63	22.63	38.00	28.00
46. Cement Corpn.	20.00	20.00	3.95	3.95	1.63	1.63	25.00	15.00
47. Professional and Spl.Services	10.00	10.00	2.00	2.00	1.00	1.00	1.00	1.00
48. Crucial Balancing Investment	226.00	226.00	0.00	0.00	20.00	20.00	12.00	12.00
D. Other Outlays on Industries	2.33	0.00	0.05	0.00	0.31	0.16	0.00	0.00
49. National Ind. Dev. Corpn.	2.33	0.00	0.05	0.00	0.31	0.16	0.00	0.00
IX. Ministry of Surface Transport (Ship Building & Repairs)	**161.80**	**161.80**	**25.70**	**25.70**	**33.00**	**33.00**	**33.00**	**33.00**
1. Hindustan Shipyard	77.50	77.50	15.00	15.00	15.00	15.00	15.00	15.00
2. Cochin Ship yard Ltd.	65.00	65.00	10.00	10.00	10.00	10.00	10.00	10.00
3. Hooghly Dock & Port Engs. Ltd.	17.60	17.60	0.00	0.00	7.30	7.30	7.30	7.30
4. Central Sector	1.70	1.70	0.70	0.70	0.70	0.70	0.70	0.70
5. Other Programmes of DOE	781.37	516.37	121.95	101.58	183.39	134.75	238.00	179.97
X. Department of Atomic Energy	**1218.50**	**850.00**	**122.70**	**106.80**	**164.32**	**125.32**	**287.45**	**220.45**
A. Telecommuni. & Electronic Ind.	225.00	75.00	20.03	20.03	34.00	22.00	43.97	17.97
1. Electronics Corpn. of India	225.00	75.00	20.03	20.03	34.00	22.00	43.97	17.97
B. Atomic Energy Industry	993.50	775.00	102.67	86.77	130.32	103.32	243.48	202.48
1. Bhabha Atomic Research Cen.(BARC)	265.00	265.00	19.13	19.13	30.00	30.00	120.00	120.00
2. Heavy Water Project	33.20	33.20	4.95	4.95	6.65	6.65	9.30	9.30
3. Nuclear Fuel Complex	140.00	140.00	19.18	19.18	8.00	8.00	15.00	15.00
4. Indira Gandhi Cent.for Atom.Res.	51.00	51.00	12.83	12.83	10.30	10.30	13.50	13.50
5. Atomic Minerals Div.	19.41	19.41	0.90	0.90	7.35	7.35	4.15	4.15
6. Indian Rare Earths (DAE)	15.00	15.00	0.02	0.02	5.00	5.00	5.00	5.00
7. Uranium Corpn. of India	168.39	118.39	24.00	24.00	26.60	26.60	13.00	13.00
8. Board for Radiation & Isotope Technology	69.00	69.00	4.26	4.26	3.42	3.42	15.93	15.93
9. Centre for Advanced Technology	6.00	6.00	1.50	1.50	1.00	1.00	1.60	1.60
10. Indian Rare Earth	223.50	55.00	15.90	0.00	32.00	5.00	46.00	5.00
11. Others	3.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00
XI Ministry of Commerce (Department of Supply)	**22.19**	**22.19**	**4.54**	**4.54**	**5.00**	**5.00**	**5.00**	**5.00**
1. NTH	21.19	21.19	4.38	4.38	4.80	4.80	4.80	4.80
2. DGS&D	1.00	1.00	0.16	0.16	0.20	0.20	0.20	0.20
XII. Department of Eco.Affairs Industrial Financ. Inst.	**2544.08**	**2544.08**	**298.86**	**298.86**	**226.49**	**226.49**	**112.15**	**112.15**
1. Currency & Coinage/Mint			22.01	22.01	23.87	23.87	33.00	33.00
2. Industrial Financial Institutions			276.85	276.85	202.62	202.62	79.15	79.15
XIII. Ministry of Textiles (I&M)	**331.01**	**331.01**	**44.36**	**39.92**	**44.08**	**40.08**	**61.65**	**55.65**
1. National Textile Corpn.	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
2. British India Corporation	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
3. National Jute Man. Corpn.	1.00	1.00	1.00	1.00	0.01	0.01	0.01	0.01
4. National Centre for Jute Diversifi.	37.00	37.00	5.00	5.00	5.00	5.00	4.00	4.00

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Annexure-3 *(Contd.)*

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Company wise/Organisation wise Approved Ninth Plan Outlay and Expenditure
(AT CURRENT PRICES)

(Rupees in Crore)

Undertaking Scheme	NINTH PLAN 1997-2002 OUTLAY		Annual Plan 1997-98 ACTUALS		Annual Plan 1998-99 REVISED ESTIMATES		Annual Plan 1999-2000 BUDGET ESTIMATES	
	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
1	2	3	4	5	6	7	8	9
5. Textile Research Associations	38.00	38.00	6.00	6.00	6.21	6.21	6.50	6.50
6. R & D	56.00	56.00	17.99	17.99	12.00	12.00	10.00	10.00
7. Technology Upgradation Fund	90.00	90.00	0.00	0.00	1.00	1.00	1.00	1.00
8. Studies	9.51	9.51	1.81	1.81	1.79	1.79	1.50	1.50
9. JMDC	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
10. Secretariat	3.00	3.00	0.42	0.42	0.18	0.18	0.97	0.97
11. Cotton Technology Mission	61.50	61.50	0.00	0.00	0.79	0.79	1.00	1.00
12. External Aid (UNDP)	0.00	0.00	0.00	0.00	0.00	0.00	9.00	9.00
13. Investment in PSUs	2.00	2.00	0.00	0.00	3.08	3.08	3.00	3.00
14. HHEC	0.00	0.00	0.00	0.00	0.00	0.00	2.45	2.45
15. Others	0.00	0.00	0.00	0.00	0.00	0.00	1.20	1.20
16. NIFT	33.00	33.00	12.14	7.70	14.00	10.00	20.00	14.00
XIV Department of Scientific & Industrial Research Central Electronics Ltd.	**21.50**	**21.50**	**1.00**	**1.00**	**5.00**	**5.00**	**5.00**	**5.00**
XV. Ministry of Commerce	**893.75**	**859.75**	**179.52**	**179.52**	**189.70**	**189.70**	**224.29**	**201.53**
1. APEDA	162.00	162.00	24.99	24.99	30.00	30.00	42.63	42.63
2. MPEDA	71.00	71.00	9.82	9.82	10.00	10.00	13.00	13.00
3. EPZ	71.00	71.00	15.39	15.39	15.00	15.00	16.00	16.00
4. EPIP	70.00	70.00	20.00	20.00	20.00	20.00	20.00	20.00
5. IIFT	9.00	9.00	4.00	4.00	2.00	2.00	4.00	3.00
6. CIB	142.00	142.00	26.87	26.87	30.00	30.00	30.00	30.00
7. EAN BAR	3.00	3.00	0.10	0.10	1.10	1.10	0.62	0.62
8. ITPO	21.00	1.00	0.00	0.00	0.50	0.50	26.85	6.85
9. ECGC	309.00	309.00	75.00	75.00	75.00	75.00	55.00	55.00
10. DGCI&S	5.00	5.00	1.50	1.50	2.50	2.50	2.00	2.00
11. EX. STUDIES	2.00	2.00	0.18	0.18	0.60	0.60	0.80	0.80
12. MODERNISATION	4.75	4.75	0.90	0.90	1.00	1.00	2.00	2.00
13. IIP	24.00	10.00	0.77	0.77	2.00	2.00	1.00	1.00
14. DGFT	0.00	0.00	0.00	0.00	0.00	0.00	4.00	4.00
15. WTO Centre	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.58
16. Footwear Institute	0.00	0.00	0.00	0.00	0.00	0.00	3.76	2.00
17. EIC	0.00	0.00	0.00	0.00	0.00	0.00	1.60	1.60
18. Quality Council	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.45
XVI Consumer Affairs	**28.37**	**28.37**	**4.80**	**4.80**	**6.36**	**6.36**	**8.50**	**8.50**
1. Bureau of Indian Standards			2.85	2.85	2.00	2.00	2.00	2.00
2. Weights & Measures			0.27	0.27	1.70	1.70	2.00	2.00
3. Consumer Protection			1.68	1.68	1.70	1.70	2.54	2.54
4. Internal Trade			0.00	0.00	0.96	0.96	1.51	1.51
5. Contribution to QCI			0.00	0.00	0.00	0.00	0.45	0.45
XVII Deptt. of Bio-Technology	**6.30**	**6.30**	**2.29**	**2.29**	**1.27**	**1.27**	**0.05**	**0.05**
a. BIBCOL	6.30	6.30	2.29	2.29	0.05	0.05	0.05	0.05
b. IVCOL	0.00	0.00	0.00	0.00	1.22	1.22	0.00	0.00
XVIII Ocean Development	**84.23**	**84.23**	**6.40**	**6.40**	**18.44**	**18.44**	**13.50**	**13.50**
Total Industry & Minerals	**55410.56**	**9530.24**	**7025.44**	**1526.14**	**6312.75**	**1725.25**	**7530.76**	**1479.99**

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Annexure-4

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Company wise/Organisation wise Approved Ninth Plan Outlay and Expenditure
(AT CONSTANT PRICES)
(1996-97 Prices)

(Rupees in Crore)

Undertaking Scheme	NINTH PLAN 1997-2002 OUTLAY		Annual Plan 1997-98 ACTUALS		Annual Plan 1998-99 REVISED ESTIMATES		Annual Plan 1999-2000 BUDGET ESTIMATES		1997-2000 ANTICIPATED EXPENDITURE	
	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
1	2	3	4	5	6	7	8	9	10	11
I Ministry of Steel	**16232.50**	**85.50**	**2204.50**	**16.57**	**1630.71**	**12.85**	**1741.14**	**10.45**	**5576.34**	**39.87**
A. Iron & Steel	13785.00	75.00	2022.17	13.25	1384.59	10.64	1299.25	7.94	4706.00	31.83
1. Steel Authority of India Ltd.	12526.00	5.00	1959.96	0.00	1276.26	0.00	925.59	0.00	4161.80	0.00
2. Rashtriya Ispat Nigam Ltd.	716.00	0.00	35.97	0.00	49.53	0.00	194.21	0.00	279.71	0.00
3. Metal Scrap Trade Corpn.	12.00	0.00	0.00	0.00	0.89	0.00	7.53	0.00	8.41	0.00
4. MECON	34.00	0.00	6.56	0.00	6.65	0.00	5.29	0.00	18.50	0.00
5. Ferro Scrap Nigam Ltd.	91.00	0.00	6.25	0.00	13.15	0.00	12.37	0.00	31.77	0.00
6. Hindustan Steel Works Construction Ltd.	25.00	20.00	4.73	4.73	4.43	4.43	4 18	4.18	13.35	13.35
7. Bharat Refractories Ltd.	39.00	20.00	5.68	5.68	6.20	6.20	2.93	2.93	14.81	14.81
8. SIIL	57.00	30.00	2.84	2.84	0.89	0.00	21.74	0.84	25.47	3.68
9. Iron & Steel Mission	285.00	0.00	0.18	0.00	26.59	0.00	125.42	0.00	152.19	0.00
B. Ferrous Minerals	2447.50	10.50	182.33	3.31	246.12	2.22	441.89	2.51	870.34	8.04
10. Kudremukh Iron Ore Co.Ltd	601.00	0.00	68.25	0.00	79.77	0.00	142.14	0.00	290.16	0.00
11. National Mineral Dev. Corpn.	1605.00	0.00	97.30	0.00	150.67	0.00	271.74	0.00	519.71	0.00
13. Manganese Ore India Ltd.	146.00	0.00	12.36	0.00	13.47	0.00	23.83	0.00	49.66	0.00
14. Bird Group of Companies	95.50	10.50	4.41	3.31	2.22	2.22	4.18	2 51	10.81	8.04
II. Ministry of Mines	**7753.96**	**844.96**	**379.43**	**133.26**	**502.42**	**139.42**	**1134.30**	**143.19**	**2016.15**	**415.88**
1. Bharat Aluminium Co. Ltd.	839.15	0.00	25.01	0.00	33.91	0.00	109.21	0.00	168.12	0.00
2. National Aluminium Co. Ltd.	3559.10	0.00	163.45	0.00	227.91	0.00	712.63	0.00	1103.99	0.00
3. Hindustan Copper Ltd.	1280.00	80.00	11.71	11.69	17.73	17.73	35.95	19.23	65.39	48.65
4. Hindustan Zinc Ltd.	1250.00	0.00	54.23	0.00	97.49	0.00	147.99	0.00	299.72	0.00
5. Bharat Gold Mines Ltd.	12.00	12.00	5.59	5.59	3.99	3.99	4.18	4.18	13.75	13.75
6. Mineral Exploration Corpn. Ltd	80.00	35.00	5.68	5.68	6.20	6.20	8.36	8.36	20.24	20.24
7. Sikkim Mining Corporation	3.25	3.00	0.15	0.15	0.44	0.44	0.32	0.32	0.91	0.91
8. Geological Survey of India	585.46	585.46	81.07	81.07	81.10	81.10	84.45	84.45	246.61	246.61
9. Indian Bureau of Mines	80.00	80.00	17.50	17.50	15.96	15.96	16.62	16.62	50.09	50.09
10. S&T Programmes	25.00	9.50	6.67	3.22	6.35	2.66	7.90	3.34	20.92	9.22
11. Construction Programmes	40.00	40.00	8.37	8.37	11.34	11.34	6.69	6.69	26.40	26.40
III. Department of Fertilizers	**11013.00**	**1043.00**	**1253.67**	**121.90**	**877.34**	**173.23**	**1528.43**	**137.96**	**3659.44**	**433.09**
1. FACT Ltd.	294.00	233.00	169.07	0.00	69.33	22.49	29.26	29.26	267.67	51.76
2. Ferts. Corp. of India	132.00	132.00	52.06	52.06	42.54	42.54	8.36	8.36	102.97	102.97
3. Hindust. Ferts. Corpn.	390.00	390.00	38.81	38.81	31.02	31.02	70.23	70.23	140.07	140.07
4. Madras Fertilizers Ltd.	209.00	101.00	77.33	0.00	69.65	54.06	21.74	16.72	168.72	70.79
5. National Fertilisers	1118.00	0.00	71.22	0.00	68.54	0.00	235.79	0.00	375.55	0.00
6. Paradeep Phosphate & Chem.	80.00	80.00	46.86	14.20	8.86	8.86	8.36	8.36	64.08	31.42
7. Pyrites Phosphate & Chem	10.00	10.00	5.68	5.68	1.33	1.33	0.42	0.42	7.43	7.43
8. Project Develop. India Ltd.	12.00	2.00	1.89	1.89	1.77	0.00	1.67	0.00	5.34	1.89
9. Rashtriya Chemicals India Ltd	2700.00	0.00	154.93	0.00	261.38	0.00	328.60	0.00	744.90	0.00
10. Krishak Bharati Cooperative	3253.00	0.00	31.77	0.00	16.13	0.00	586.96	0.00	634.86	0.00
11. Indian Farmers Fert. Coop	2720.00	0.00	594.79	0.00	293.86	0.00	232.44	0.00	1121.09	0.00
12. Others Schemes	95.00	95.00	9.25	9.25	12.92	12.92	4.60	4.60	26.77	26.77
IV. Min. of Petro. & Natural Gas	4386.82	**0.00**	437.19	**0.00**	**393.36**	**0.00**	**283.27**	**0.00**	**1113.82**	**0.00**

Annexure-4 *(Contd.)*

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Company wise/Organisation wise Approved Ninth Plan Outlay and Expenditure
(AT CONSTANT PRICES)
(1996-97 Prices)

(Rupees in Crore)

Undertaking Scheme	NINTH PLAN 1997-2002 OUTLAY		Annual Plan 1997-98 ACTUALS		Annual Plan 1998-99 REVISED ESTIMATES		Annual Plan 1999-2000 BUDGET ESTIMATES		1997-2000 ANTICIPATED EXPENDITURE	
	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
1	2	3	4	5	6	7	8	9	10	11
A. Petro-Chemical Industries	4054.37	0.00	395.95	0.00	317.14	0.00	186.24	0.00	899.33	0.00
1. Bongaigaon Refineries	437.70	0.00	7.00	0.00	24.70	0.00	13.85	0.00	45.54	0.00
2. Bharat Petroleum Corpn. Ltd.	499.70	0.00	0.00	0.00	1.24	0.00	1.00	0.00	2.24	0.00
3. Cochin Refineries Ltd.	29.90	0.00	0.28	0.00	3.90	0.00	3.09	0.00	7.28	0.00
4. Hindustan Petro. Corpn.	12.95	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.04	0.00
5. Indian Oil Corpn.	986.90	0.00	3.88	0.00	24.48	0.00	60.64	0.00	89.00	0.00
6. Madras Refineries Ltd.	112.52	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.42	0.00
7. Gas Authority of India Ltd.	702.95	0.00	384.79	0.00	262.82	0.00	104.68	0.00	752.29	0.00
8. Oil & natural Gas Commission	1271.75	0.00	0.00	0.00	0.00	0.00	2.51	0.00	2.51	0.00
B. Engineering Industries	332.45	0.00	41.24	0.00	76.22	0.00	97.03	0.00	214.49	0.00
1. Indo-Burma Petroleum Co.	16.55	0.00	0.76	0.00	5.32	0.00	5.43	0.00	11.51	0.00
2. Balmer Lawrie	284.20	0.00	39.16	0.00	70.90	0.00	83.61	0.00	193.68	0.00
3. Bieco Lawrie	31.70	0.00	1.32	0.00	0.00	0.00	7.98	0.00	9.30	0.00
V. Deptt. of Chemicals & Petro-chem	**6760.00**	**171.00**	**1075.55**	**30.72**	**825.03**	**33.68**	**426.13**	**31.77**	**2326.71**	**96.17**
A. Petrochemical Industries	5671.75	20.25	1011.88	11.31	753.79	6.65	358.70	3.35	2124.37	21.31
1. Indian Petrochemicals Coop. Ltd.	5601.50	0.00	1000.57	0.00	747.14	0.00	355.35	0.00	2103.06	0.00
2. Petrofils Cooperative Ltd.	5.00	5.00	1.89	1.89	1.77	1.77	0.01	0.01	3.67	3.67
3. Other Bodies/Institutions. CIPET, PPDA	65.25	15.25	9.42	9.42	4.87	4.87	3.34	3.34	17.64	17.64
B. Chemicals & Pharmaceutical Ind.	1088.25	150.75	63.67	19.41	71.24	27.03	67.42	28.42	202.33	74.86
1. Hindustan Organic Chem. Ltd.	850.00	0.00	42.61	0.00	38.11	0.00	28.43	0.00	109.15	0.00
2. Hindustan Insecticides Ltd.	75.00	36.85	5.54	3.88	10.97	6.65	10.58	7.53	27.09	18.05
3. Indian Drugs & Pharmac. Ltd.	0.25	0.25	0.05	0.05	0.04	0.04	0.01	0.01	0.10	0.10
4. Hindustan Antibiotics Ltd.	13.00	13.00	2.84	2.84	2.66	2.66	2.51	2.51	8.01	8.01
5. Bengal Chem. & Pharm. Ltd	51.00	15.00	4.73	4.73	4.87	3.10	10.87	3.34	20.48	11.18
6. Smith Stainsteet Pharm. Ltd	1.87	1.87	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
7. Bengal Immunity Ltd.	1.88	1.88	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
8. National Institute of Pharmact. Edu. & Res. (NIPER)	82.50	70.00	6.39	6.39	11.52	11.52	10.87	10.87	28.78	28.78
9. Other Bodies/Institutions (IPFT, CWC, PRDP, CPDS, RENPAP)	12.75	11.90	1.51	1.51	3.06	3.06	4.15	4.15	8.72	8.72
VI. Department of Ind. Dev.and IP&P	**1923.75**	**1923.75**	**407.72**	**407.72**	**486.65**	**486.65**	**265.89**	**265.89**	**1160.26**	**1160.26**
A. Cement & Non-Metallic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Engineering Ind.	24.00	24.00	4.26	4.26	5.02	5.02	4.81	4.81	14.08	14.08
C. Other Industries	1298.99	1298.99	304.64	304.64	370.95	370.95	140.82	140.82	816.41	816.41
D. Other Outlays on I&M	517.00	517.00	97.64	97.64	104.66	104.66	101.20	101.20	303.50	303.50
E. Secretariat Economic Services	2.00	2.00	0.47	0.47	0.89	0.89	0.50	0.50	1.86	1.86
F. General Economic Services	81.76	81.76	0.71	0.71	5.14	5.14	18.56	18.56	24.41	24.41
VII. Sugar & Edible Oils	**1.80**	**1.80**	**0.34**	**0.34**	0.27	0.27	**0.33**	**0.33**	**0.94**	**0.94**
VIII. Department of Heavy Ind.	**2027.00**	**551.00**	**238.63**	**100.09**	**264.36**	**106.29**	**289.56**	**100.33**	**792.55**	**306.71**

Annexure-4 *(Contd.)*

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Company wise/Organisation wise Approved Ninth Plan Outlay and Expenditure
(AT CONSTANT PRICES)
(1996-97 Prices)

(Rupees in Crore)

Undertaking Scheme	NINTH PLAN 1997-2002 OUTLAY		Annual Plan 1997-98 ACTUALS		Annual Plan 1998-99 REVISED ESTIMATES		Annual Plan 1999-2000 BUDGET ESTIMATES		1997-2000 ANTICIPATED EXPENDITURE	
	1OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
1	2	3	4	5	6	7	8	9	10	11
A. Engineering Industries	1446.98	254.52	163.09	76.11	179.54	70.66	204.57	63.43	547.21	210.20
1. Andrew Yule	27.52	25.00	6.70	6.70	2.97	0.00	2.36	0.01	12.03	6.71
2. Bharat Heavy Electricals	800.00	0.00	71.94	0.00	90.40	0.00	112.21	0.00	274.55	0.00
3. Bharat Bhari Udyog Ltd.	0.38	0.38	0.00	0.00	0.00	0.00	0.17	0.17	0.17	0.17
4. Braith Waite	17.43	11.43	2.58	2.58	1.77	1.77	0.84	0.01	5.20	4.37
5. Burn Standard Company Ltd.	23.98	20.00	9.83	9.83	13.29	13.29	25.52	25.52	48.64	48.64
6. Bharat Brakes & Valves	4.01	0.01	0.00	0.00	0.01	0.01	0.26	0.01	0.27	0.02
7. Bharat Wagon & Engineering	7.00	0.00	0.00	0.00	0.44	0.00	0.43	0.01	0.87	0.01
8. Bharat Pro. & Mec. Eng.	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9. Weigh Bird India	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10. Jessop	19.20	14.00	3.79	3.79	0.00	0.00	5.18	5.18	8.97	8.97
11. Lagan Jute	4.55	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
12. Braith Burn & Jessop	0.70	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02
13. RBL	1.24	0.94	0.57	0.57	0.30	0.30	0.01	0.01	0.88	0.88
14. Bharat Yantra Nigam	2.00	2.00	0.00	0.00	0.27	0.27	0.25	0.25	0.52	0.52
15. Bharat Heavy Plates & Vessels	36.58	0.00	1.59	0.00	5.32	0.00	7.53	0.00	14.43	0.00
16. Bharat Pumps & Comp.	10.01	0.01	0.76	0.00	1.81	0.89	0.01	0.01	2.57	0.89
17. Bridge & Roofs	26.00	0.00	7.87	0.00	3.55	0.00	9.20	0.00	20.61	0.00
18. Richardson & Crudas	9.00	0.00	1.39	0.00	1.77	0.00	5.60	0.00	8.77	0.00
19. Triveni Structural Ltd.	7.00	1.00	0.75	0.75	1.56	0.00	0.01	0.01	2.32	0.76
20. Tungbhadra Steel	7.00	1.00	2.34	0.00	1.77	0.89	4.18	1.67	8.29	2.56
21. Cycle Corporation	0.01	0.01	1.89	1.89	0.00	0.00	0.00	0.00	1.89	1.89
22. Engineering Projects	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23. Heavy Engineering Corpn.	65.00	65.00	18.93	18.93	17.73	17.73	16.72	16.72	53.38	53.38
24. HMT	252.45	65.00	12.34	12.34	20.38	20.38	0.01	0.01	32.74	32.74
25. Hindustan Cables	59.02	8.75	6.58	6.58	0.66	0.66	5.02	5.02	12.26	12.26
26. Instrumentation Ltd.	12.50	2.50	2.70	2.70	3.99	3.99	1.25	1.25	7.94	7.94
27. Mining & Allied Machinery	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
28. National Instruments	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29. National Bicycle CIL	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
30. Praga Tools	15.76	5.00	0.95	0.95	5.14	5.14	1.68	1.68	7.77	7.77
31. Scooters India Ltd.	10.00	10.00	1.31	1.31	0.00	0.00	3.60	3.60	4.90	4.90
32. High Voltage Direct Current	10.26	10.26	5.68	5.68	3.78	3.78	0.00	0.00	9.46	9.46
33. Fluid Control Research	17.31	11.16	2.61	1.51	2.62	1.56	2.51	2.26	7.74	5.33
34. Bharat Opthalmic Glass	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
35. Rehabilitation Ind.	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Consumer Industries	321.69	40.48	69.86	18.35	64.49	15.43	53.21	13.49	187.56	47.27
36. Bharat Leather	0.01	0.01	0.30	0.30	0.58	0.58	0.01	0.01	0.89	0.89
37. TAFCO	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
38. NEPA	7.52	7.52	0.00	0.00	4.43	4.43	5.30	5.30	9.73	9.73
39. Hindustan Paper	145.70	0.00	26.29	0.00	16.85	0.00	19.23	5.02	62.37	5.02
40. NPPC	1.00	1.00	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03
41. MNPM	0.10	0.10	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03

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Annexure-4 *(Contd.)*

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Company wise/Organisation wise Approved Ninth Plan Outlay and Expenditure
(AT CONSTANT PRICES)
(1996-97 Prices)

(Rupees in Crore)

Undertaking Scheme	NINTH PLAN 1997-2002 OUTLAY		Annual Plan 1997-98 ACTUALS		Annual Plan 1998-99 REVISED ESTIMATES		Annual Plan 1999-2000 BUDGET ESTIMATES		1997-2000 ANTICIPATED EXPENDITURE	
	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
1	2	3	4	5	6	7	8	9	10	11
42. HNL	135.51	0.00	25.23	0.00	31.76	0.00	25.08	0.00	82.08	0.00
43. Hindustan Salts	6.31	6.31	0.57	0.57	2.17	1.73	1.88	1.46	4.62	3.76
44. Hindustan Photo Films	3.50	3.50	2.37	2.37	2.96	2.96	0.01	0.01	5.34	5.34
45. Tyre Corporation	22.03	22.03	15.09	15.09	5.72	5.72	1.67	1.67	22 48	22.48
C. Cement & Non-Metallic Industries	256.00	256.00	5.63	5.63	20.06	20.06	31.77	23.41	57.46	49.10
46. Cement Corpn.	20.00	20.00	3.74	3.74	1.44	1.44	20.90	12.54	26.09	17 73
47. Professional and Spl.Services	10.00	10.00	1.89	1.89	0.89	0.89	0.84	0.84	3.62	3.62
48. Crucial Balancing Investment	226.00	226.00	0.00	0.00	17.73	17.73	10.03	10.03	27 76	27.76
D. Other Outlavs on Industries	2.33	0.00	0.05	0.00	0.27	0.14	0.00	0.00	0.32	0.14
49. National Ind. Dev. Corpn.	2.33	0.00	0.05	0.00	0.27	0.14	0.00	0.00	0.32	0.14
IX. Ministry of Surface Transport (Ship Building & Repairs)	**161.80**	**161.80**	**24.33**	**24.33**	**29.25**	**29.25**	**27.59**	**27.59**	**81.17**	**81.17**
1. Hindustan Shipyard	77.50	77.50	14.20	14.20	13.29	13.29	12.54	12.54	40.04	40.04
2. Cochin Ship yard Ltd.	65.00	65.00	9.47	9.47	8.86	8.86	8.36	8.36	26.69	26.69
3. Hooghly Dock & Port Engs. Ltd.	17.60	17.60	0.00	0.00	6.47	6.47	6.10	6.10	12.57	12.57
4. Central Sector	1.70	1.70	0.66	0.66	0.62	0.62	0.59	0.59	1.87	1.87
5. Other Programmes of DOE	781.37	516.37	115.44	96.16	162.54	119.43	199.00	150.48	476.97	366.06
X. Department of Atomic Energy	**1218.50**	**850.00**	**116.15**	**101.10**	**145.64**	**111.07**	**240.34**	**184.32**	**502.13**	**396.49**
A. Telecommuni. & Electronic Ind.	225.00	75.00	18.96	18.96	30.13	19.50	36.76	15.03	85.86	53 48
1. Electronics Corpn of India	225.00	75.00	18.96	18.96	30.13	19.50	36.76	15.03	85.86	53.48
B. Atomic Energv Industrv	993.50	775.00	97.19	82.14	115.50	91.57	203.58	169.30	416.27	343.01
1. Bhabha Atomic Research Cen. (BARC)	265.00	265.00	18.11	18.11	26 59	26.59	100.33	100.33	145.03	145.03
2. Heavy Water Project	33.20	33.20	4.69	4.69	5.89	5.89	7.78	7.78	18.36	18.36
3. Nuclear Fuel Complex	140.00	140.00	18.16	18.16	7.09	7.09	12.54	12.54	37.79	37.79
4. Indira Gandhi Cent.for Atom.Res.	51.00	51.00	12.15	12.15	9.13	9.13	11.29	11.29	32.56	32.56
5. Atomic Minerals Div.	19.41	19.41	0.85	0.85	6.51	6.51	3.47	3.47	10.84	10.84
6. Indian Rare Earths (DAE)	15.00	15.00	0.02	0.02	4.43	4.43	4.18	4.18	8.63	8.63
7. Uranium Corpn. of India	168.39	118.39	22.72	22.72	23.58	23.58	10.87	10.87	57.16	57.16
8. BRIT	69.00	69.00	4.03	4.03	3.03	3.03	13.32	13.32	20.38	20.38
9. Centre for Advanced Technology	6.00	6.00	1.42	1.42	0.89	0.89	1.34	1.34	3.64	3.64
10. Indian Rare Earth	223.50	55.00	15.05	0.00	28.36	4.43	38.46	4.18	81.87	8.61
11. Others	3.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
XI Ministry of Commerce (Department of Supply)	**22.19**	**22.19**	**4.30**	**4.30**	**4.43**	**4.43**	**4.18**	**4.18**	**12.91**	**12.91**
1. NTH	21.19	21.19	4.15	4.15	4.25	4.25	4.01	4.01	12.41	12.41
2. DGS&D	1.00	1.00	0.15	0.15	0.18	0.18	0.17	0.17	0.50	0.50
XII Department of Eco.Affairs Industrial Financ. Inst.	**2544.08**	**2544.08**	**282.90**	**282.90**	**200.74**	**200.74**	**93.77**	**93.77**	**577.41**	**577.41**
1. Currency & Coinage/Mint			20.83	20.83	21.16	21.16	27.59	27.59	69.58	69.58
2. Industrial Financial Institutions			262.07	262.07	179.58	179.58	66.18	66.18	507.83	507.83
XIII. Ministry of Textiles (I&M)	**331.01**	**331.01**	**41.99**	**37.79**	**39.07**	**35.52**	**51.55**	**46.53**	**132.61**	**119.84**
1. National Textile Corpn.	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02
2. British India Corporation	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02

Annexure-4 *(Contd.)*

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Company wise/Organisation wise Approved Ninth Plan Outlay and Expenditure
(AT CONSTANT PRICES)
(1996-97 Prices)

(Rupees in Crore)

Undertaking Scheme	NINTH PLAN 1997-2002 OUTLAY		Annual Plan 1997-98 ACTUALS		Annual Plan 1998-99 REVISED ESTIMATES		Annual Plan 1999-2000 BUDGET ESTIMATES		1997-2000 ANTICIPATED EXPENDITURE	
	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
1	2	3	4	5	6	7	8	9	10	11
3. National Jute Man. Corpn.	1.00	1.00	0.95	0.95	0.01	0.01	0.01	0.01	0.96	0.96
4. National Centre for Jute Diversifi.	37.00	37.00	4.73	4 73	4.43	4.43	3.34	3.34	12.51	12.51
5. Textile Research Associations	38.00	38.00	5.68	5.68	5.50	5.50	5.43	5.43	16.62	16.62
6. R & D	56.00	56.00	17.03	17.03	10.64	10.64	8.36	8.36	36.03	36.03
7. Technology Upgradation Fund	90.00	90.00	0.00	0.00	0.89	0.89	0.84	0.84	1.72	1.72
8. Studies	9.51	9.51	1.71	1.71	1.59	1.59	1.25	1.25	4.55	4.55
9. JMDC	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.84	0.84
10. Secretariat	3.00	3.00	0.40	0.40	0.16	0.16	0.81	0.81	1.37	1.37
11. Cotton Technology Mission	61.50	61.50	0.00	0.00	0.70	0.70	0.84	0.84	1.54	1.54
12. External Aid (UNDP)	0.00	0.00	0.00	0.00	0.00	0.00	7.53	7.53	7.53	7.53
13. Investment in PSUs	2.00	2.00	0.00	0.00	2.73	2.73	2.51	2.51	5.24	5.24
14. HHEC	0.00	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	2.05
15. Others	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
16. NIFT	33.00	33.00	11 49	7.29	12.41	8.86	16.72	11.71	40.62	27.86
XIV Department of Scientific & Industrial Research										
Central Electronics Ltd.	**21.50**	**21.50**	**0.95**	**0.95**	**4.43**	**4.43**	**4.18**	**4.18**	**9.56**	**9.56**
XV. Ministry of Commerce	**893.75**	**859.75**	**169.94**	**169.94**	**168.13**	**168.13**	**187.53**	**168.50**	**525.60**	**506.57**
1. APEDA	162.00	162.00	23.66	23.66	26.59	26.59	35.64	35.64	85.89	85.89
2. MPEDA	71.00	71.00	9.30	9.30	8.86	8.86	10.87	10.87	29.03	29.03
3. EPZ	71.00	71.00	14.57	14.57	13.29	13.29	13.38	13.38	41.24	41.24
4. EPIP	70.00	70.00	18 93	18.93	17.73	17.73	16.72	16.72	53.38	53.38
5. IIFT	9.00	9.00	3.79	3.79	1.77	1.77	3.34	2.51	8.90	8.07
6. CIB	142.00	142.00	25.44	25.44	26.59	26.59	25.08	25.08	77.11	77.11
7. EAN BAR	3.00	3.00	0.09	0.09	0.97	0.97	0.52	0.52	1.59	1.59
8. ITPO	21.00	1.00	0.00	0.00	0.44	0.44	22.45	5.73	22.89	6.17
9. ECGC	309.00	309.00	71.00	71.00	66.47	66.47	45.99	45.99	183.45	183.45
10. DGCI&S	5.00	5.00	1.42	1.42	2.22	2.22	1.67	1.67	5.31	5.31
11. EX. STUDIES	2.00	2.00	0.17	0.17	0.53	0.53	0.67	0.67	1.37	1.37
12. MODERNISATION	4.75	4.75	0.85	0.85	0.89	0.89	1.67	1.67	3.41	3.41
13. IIP	24.00	10.00	0.73	0.73	1.77	1.77	0.84	0.84	3.34	3.34
14. DGFT	0.00	0.00	0.00	0.00	0 00	0.00	3.34	3.34	3.34	3.34
15. WTO Centre	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.48	0.48	0.48
16. Footwear Institute	0.00	0.00	0.00	0.00	0.00	0.00	3.14	1.67	3.14	1.67
17. EIC	0.00	0.00	0.00	0.00	0.00	0.00	1.34	1.34	1.34	1.34
18. Quality Council	0.00	0.00	0 00	0.00	0.00	0.00	0.38	0.38	0.38	0.38
XVI Consumer Affairs	**28.37**	**28.37**	**4.54**	**4.54**	**5.64**	**5.64**	**7.11**	**7.11**	**17.29**	**17.29**
1. Bureau of Indian Standards			2.70	2.70	1.77	1.77	1.67	1.67	6.14	6.14
2. Weights & Measures			0.26	0.26	1.51	1.51	1.67	1.67	3.43	3.43
3. Consumer Protection			1.59	1.59	1.51	1.51	2.12	2.12	5.22	5.22
4. Internal Trade			0.00	0.00	0.85	0.85	1.26	1.26	2.11	2.11
5. Contribution to QCI			0.00	0.00	0.00	0.00	0.38	0.38	0.38	0.38

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Annexure-4 *(Contd.)*

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
The Company wise/Organisation wise Approved Ninth Plan Outlay and Expenditure
(AT CONSTANT PRICES)
(1996-97 Prices)

(Rupees in Crore)

Undertaking Scheme	NINTH PLAN 1997-2002 OUTLAY		Annual Plan 1997-98 ACTUALS		Annual Plan 1998-99 REVISED ESTIMATES		Annual Plan 1999-2000 BUDGET ESTIMATES		1997-2000 ANTICIPATED EXPENDITURE	
	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS	OUTLAY	BS
1	2	3	4	5	6	7	8	9	10	11
XVII. Deptt. of Bio-Technology	**6.30**	**6.30**	**2.17**	**2.17**	**1.13**	**1.13**	**0.04**	**0.04**	**3.34**	**3.34**
a. BIBCOL	6.30	6.30	2.17	2.17	0.04	0.04	0.04	0.04	2.25	2.25
b. IVCOL	0.00	0.00	0.00	0.00	1.08	1.08	0.00	0.00	1.08	1.08
XVIII Ocean Development	**84.23**	**84.23**	**6.06**	**6.06**	**16.34**	**16.34**	**11.29**	**11.29**	**33.69**	**33.69**
Total Industry & Minerals	**55410.56**	**9530.24**	**6650.35**	**1444.66**	**5594.92**	**1529.07**	**6296.62**	**1237.45**	**18541.90**	**4211.18**

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Annexure-5

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
VILLAGE & SMALL INDUSTRIES SECTOR
Subsector Wise Ninth Plan Outlays And Expenditure - All Budgetary Support
(At Current Prices)

Sl. No.	Name of the Sub-sector	Ninth Plan 1997-2002 Outlay	Annual Plan 1997-98 Actual Expdr.	Annual Plan 1998-99 R.E.	Annual Plan 1999-2000 B.E.
1	**Dept. of SSIA&RI**				
	a) SIDO	601.85	53.69	69.35	97.00
	b) PMRY	788.00	94.83	135.50	173.00
	c) Coir Industry	116.00	11.68	10.76	20.00
	d) KVI	1993.00	440.78	346.43	300.75
	e) NSIC	726.00	132.00	146.00	145.00
	(IEBR of NSIC)	517.00	103.50	115.00	115.00
	f) Other Schemes	79.00	2.16	3.04	6.50
	Total (SSIA&RI)	**4303.85**	**735.14**	**711.08**	**742.25**
2	**Ministry of Textiles (VSI Sector)**				
	a) Handlooms	452.50	91.59	80.72	81.80
	b) Powerlooms	44.00	2.89	4.50	6.00
	c) Sericulture	302.00	50.90	63.00	68.00
	d) Handicrafts	257.00	44.62	48.08	54.05
	e) Wool Development	28.00	4.30	4.50	6.50
	Total: Textiles (VSI)	**1083.50**	**194.30**	**200.80**	**216.35**
3	**Ministry of Food Processing Industries**				
	a) Grain Processing	7.79	1.43	0.70	0.75
	b) Fruit & Veg. Processing	90.70	4.80	14.40	17.50
	c) Milk Based Industries	25.05	4.50	5.50	6.00
	d) Meat & Poultry Processing	37.40	1.92	6.50	6.95
	e) Fisheries	50.50	6.68	12.45	13.35
	f) Consumer Industries	8.00	1.43	1.50	1.65
	g) Secretarial & Eco. Services	15.60	2.11	3.05	2.80
	h) Processed Food Fund	0.00	0.00	0.00	1.00
	Total: (FPI)	**235.04**	**22.87**	**44.10**	**50.00**

Annexure-6

Mid Term Appraisal of the Ninth Five Year Plan (1997-2002)
VILLAGE & SMALL INDUSTRIES SECTOR
Subsector Wise Ninth Plan Outlays And Expenditure - All Budgetary Support
(At Constant Prices- 1996-97)

(Rs. In Crore)

Sl. No.		Name of the Sub-sector	Ninth Plan 1997-2002 Outlay	Annual Plan 1998-99 R.E.	Annual Plan 1999-2000 B.E.	1997-2000 Anticipated Expdr.	Percentage Utilisation of Ninth Plan Outlay
1		**Dept. of SSIA&RI**					
	a)	SIDO	601.85	61.46	81.1	193.39	32.13
	b)	PMRY	788	120.09	144.65	354.51	44.99
	c)	Coir Industry	116	9.54	16.72	37.32	32.17
	d)	KVI	1993	307.04	251.46	975.75	48.96
	e)	NSIC	726	129.4	121.24	375.59	51.73
		(IEBR of NSIC)	517	101.92	96.15	296.05	57.26
	f)	Other Schemes	79	2.69	5.43	10.17	12.87
		Total (SSIA&RI)	**4303.85**	**630.22**	**620.61**	**1946.72**	**45.23**
2		**Ministry of Textiles (VSI Sector)**					
	a)	Handlooms	452.5	71.54	68.39	226.64	50.09
	b)	Powerlooms	44	3.99	5.02	11.74	26.68
	c)	Sericulture	302	55.84	56.02	160.04	52.99
	d)	Handicrafts	257	42.61	42.27	127.12	49.46
	e)	Wool Development	28	3.99	4.18	12.24	43.71
		Total: Textiles (VSI)	**1083.5**	**177.97**	**175.88**	**537.77**	**49.63**
3		**Ministry of Food Processing Industries**					
	a)	Grain Processing	7.79	0.62	0.63	2.6	33.38
	b)	Fruit & Veg. Processing	90.7	12.76	14.63	31.94	35.21
	c)	Milk Based Industries	25.05	4.87	5.02	14.15	56.49
	d)	Meat & Poultry Processing	37.4	5.76	5.81	13.39	35.80
	e)	Fisheries	50.5	11.03	11.16	28.52	56.48
	f)	Consumer Industries	8	1.33	1.38	4.06	50.75
	g)	Secretarial & Eco. Services	15.6	2.7	2.34	7.04	45.13
	h)	Processed Food Fund	0	0	0.84	0.84	N.A
		Total: (FPI)	**235.04**	**39.09**	**41.81**	**102.54**	**43.63**

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CHAPTER 6

POVERTY ALLEVIATION PROGRAMMES

Eradication of poverty remains a major challenge of planned economic development. Experiences of different states with economic growth and poverty reduction have been so varied that it is difficult to offer any general policy prescription. There are states that followed the path of high agricultural growth and succeeded in reducing poverty (Punjab and Haryana) and states that focused on human resource development and reduced poverty (Kerala). There have been states that implemented land reforms with vigour, empowered the panchayats, mobilised the poor and implemented poverty-alleviation programmes effectively (West Bengal) and states that brought about reduction in poverty by direct public intervention in the form of public distribution of foodgrains (Andhra Pradesh).

2. Poverty had declined substantially in 1980s. However, recent estimates suggest that projections on reduction of proportion and number of people below poverty line made in the Ninth Plan have not been realised in the first two years of the plan period. While this calls for a much more rigorous analysis, the possible factors that might have contributed to this could be:

- fiscal crisis faced by State Governments resulting in lower spending on social sectors,
- slowing down of and less dispersed agricultural growth, especially foodgrains,
- decline in employment intensity in the agricultural sector with a small increase in real wages,
- failure of Targeted Public Distribution System (TPDS) to reach the poorest in northern and eastern states,
- a negligible expansion in the non-farm sector, and
- indifferent functioning of the poverty alleviation and watershed development schemes .

3. Given the enormity and complexity of the task, the Ninth Five Year Plan envisaged a multi-pronged approach. Besides recognising the role of high economic growth in tackling poverty, the strategy comprised creation of *entitlements* (through self-employment and wage-employment schemes, food security and social security) and building up of *capabilities* (through basic minimum services like education, health and housing). The issues of governance also engaged the attention of the Plan, which envisaged greater participation of the Panchayati Raj Institutions as the most effective delivery mechanism for poverty reduction. This chapter discusses the effectiveness of programmes of the Ministry of Rural Development in alleviating poverty.

Integrated Rural Development Programme

4. The Integrated Rural Development Programme (IRDP) was started in 1980-81 in all blocks of the country and continued as a major self-employment scheme till April 1, 1999. Then, it was restructured as the Swarnjayanti Gram Swarozgar Yojana (SGSY) which aimed at self-employment of the rural poor. The objective will be achieved through acquisition of productive assets or appropriate skills that would generate an additional income on a sustained basis to enable them to cross poverty line. Rural poor families have remained constant in number at 55 million in the last 20 years despite high growth and high investment in IRDP and wage-giving programmes. Since the inception of the programme till 1998-99, 53.50 million families have been covered under IRDP at an expenditure of Rs.13,700 crore. During first two years of the Ninth Plan (1997-98 and 1998-99), about 3.37 million families are reported to have been covered of which 46 per cent were Scheduled Castes/Scheduled Tribes and 35 per cent women. The total investment during this period has been Rs.6,431 crore including a subsidy of Rs 2,266 crore.

5. IRDP has been extensively evaluated by researchers, scholars, various national institutions and international organisations. They have all pointed out several conceptual and administrative problems with it. IRDP has several allied programmes like Training of Rural Youth for Self-Employment (TRYSEM), Development of Women and Children in Rural Areas (DWCRA), Ganga Kalyan Yojana (GKY), Million Wells Scheme (MWS) and Supply of Improved Toolkits to Rural Artisans (SITRA). Together, they presented a matrix of multiple programmes without desired linkages. These were implemented as separate programmes without keeping in mind the overall objective of generating sustainable incomes. For instance, only 3 per cent of IRDP beneficiaries received training under TRYSEM and only 23 per cent of those trained thus were assisted under IRDP.

6. Not only are there no linkages between different programmes, there has been lack of coordination with other departments as well. IRDP and the allied ones are not sufficiently enmeshed in the overall strategy of sustainable agricultural development or rural industrialisation strategy or with the resource-base of the area. In fact very few loans have been given for buying land. This absence of integration together with lack of

technological and institutional capabilities puts a question mark on the very strategy and design of the programmes.

7. The average investment per family remained at sub-critical levels, too inadequate to generate income of Rs.2,000 per family per month as the programmes had set out to do. Such investment at the beginning of the Eighth Plan was Rs.7,889. Even the investment at the beginning of Ninth Plan of Rs.16,753 was not much higher in real terms. Such low per-family investment in the face of inflationary trends and rising cost of assets cannot finance viable projects to offer adequate incomes on a sustained basis.

8. The management of such inherently unviable projects was in the hands of often illiterate and unskilled beneficiaries with little or no past experience of managing an enterprise. There was, however, an implicit assumption that the prospective beneficiaries possessed information and skills to choose viable options, had access to raw materials and were aware of nature of the product and factor markets. This was not the case. IRDP did not take into account the disabilities from which the poor suffer, notably their exclusion from the community decision-making. As a result, many beneficiaries could not retain the asset for long; for some who did retain it the income generated was not enough to cross the poverty line. On the contrary, where infrastructure was in place and markets were well developed, IRDP met with greater success. These were the regions where many people even without the subsidy would have taken to entrepreneurial activities.

9. The delivery of credit by banks has also been a constraint. The fear of default meant that banks lent to the better-off applicants who could make their projects work, or to the unscrupulous who would pocket the subsidy element and repay the loan in connivance with the bank. Furthermore, the bureaucratic procedures were also too complex and beyond the comprehension of beneficiaries.

10. Lack of imagination and planning led to overcrowding of lending for certain projects. For quite sometime, IRDP was seen as a scheme for distributing milch animals without any concern whether so much of feed and fodder and veterinary care would be available or not and whether there was any demand or market for the products. As a result, the same cattle changed hands several times with the involvement of banks, block officials and the beneficiaries in collecting the subsidy. Situation has changed; now there is greater emphasis on secondary and tertiary sector activities. However, the profitable activities in these sectors get saturated very fast as a result of over-lending. The basic problems of lack of demand analysis and availability of inputs remain.

11. IRDP has been a poorly targeted programme notwithstanding the elaborate criteria of identification of 'below poverty line (BPL)' families by the Gram Panchayat. Instances of non-poor getting selected and the poor being left out have not been infrequent.

12. Leakages, misappropriation of funds, violation of programme guidelines, selection of the non-poor as target group, absence of proper maintenance of accounts and poor quality of assets – all these have been documented in various studies (see **Box 1).**

Box. 1 IRDP Funds Go to Non-poor

Reports of corruption and payoffs to middlemen were pervasive, and few households claimed to have utilized loans for productive purposes. For instance, a review of the experience of 394 poor households in Bankura District in West Bengal found various kinds of misconduct under IRDP that penalized the target group. Banks in the sample improperly deducted 10 percent of the loan as charges, and most beneficiaries were told or perceived that they did not have to repay the loan portion.

Additionally, middlemen "captured" subsidies of credit-based anti-poverty programmes, effectively increasing the cost of such transactions. A sampling of 312 "weak" borrowers in Tamil Nadu showed "incidental expenses" and "speed/quick or push money" amounting to Rs.21 for every Rs.100 of subsidy. About two-thirds of this sample also reported "working" for the subsidy and producing "quick money" in addition to covering normal expenses. Such "fixed" transaction costs, even if legitimate, were not only high but inherently regressive as well.

In another case study (Gangajalghati and Ranibandh), almost no IRDP beneficiary satisfied the eligibility criteria. Their participation in the programme came about through political interference; lack of proper information systems and decisions by some bank officials to ignore poor repayment records, among other reasons. Once the programme participants obtained the loan in the form of goats, the animals were sold and the proceeds used for other purposes. Further, the shortage of goats in the area was such that the planned number of goat loans could not be met. Other schemes like blacksmithing and carpentry faced such difficulties as scant supplies of raw materials and absence of proper marketing facilities.

Source : Rural Finance Report, World Bank, 1998.

13. A disturbing feature of IRDP in several states has been the rising indebtedness of its beneficiaries. In many cases, the beneficiaries have had to borrow money at much higher interest to repay the IRDP loan and avoid legal action. This unintended outcome of IRDP has raised serious doubts about the projects' ability to lift the beneficiary above the poverty line.

14. The rise in indebtedness has two reasons. Firstly, the programme overlooks consumption requirements of the beneficiaries; this leads to diversion of the project loan for consumption needs. Secondly, once micro-enterprises are established there is no mechanism to look at how these enterprises tackle problems of marketing or working capital. As a result, many of these units become unviable and leave the beneficiary in debt.

15. The scope of poverty reduction through IRDP is limited both by debt-capacity of the poor and by the high cost of appraising, monitoring and enforcing small loan agreements. The first limitation is in theory offset by subsidy, but it attracts rich borrowers to the scheme and thus raises political and administrative problems. The subsidy element has led to large scale corruption, it is reported, on the part of lower level functionaries (who certify that beneficiaries are below the poverty line), by bank staff and by borrowers themselves. Some of the borrowers sell off their assets and pocket the subsidy and others borrow by proxy for target group borrowers.

16. Large numbers of milch animals are often bought for beneficiaries at the same time in cattle fairs, pushing up their price. The difference in the price and quality of financed assets over their market price, along with cost of time, out-of-pocket expenses and payments to middlemen raises transaction cost to the borrower by an estimated 20 per cent. Thus, although the interest rate on bank loans under the programme is 12 per cent, the effective rate is between 30 per cent and 35 percent . This entirely nullifies benefits of average subsidy amount of one-third.

17. Failure by the poor to use assets profitably stems from several factors, of which control over markets is an important factor. The poor are not able to secure economies of scale because of indivisibilities in marketing costs and in insurance opportunities. Low price received by the poor for their products is also because of interlocked output and capital markets, lack of value addition technologies, poor organisational base and at times government policies which adversely affect the poor. These problems need to be addressed by making concerted efforts to involve all stakeholders including non-governmental organizations.

18. Most poor people operate in very limited segments of highly segmented product and labour markets, and therefore the demand for their products gets saturated fast. The programme had better success in infrastructure-rich regions and for economically better-off people.

19. On the whole, the basic concept of IRDP remains flawed. The massive amount spent on subsidies which have by and large not accrued to beneficiaries would be much better spent on watershed development, rural infrastructure and social security. Growth in first two of these is an essential concomitant of credit and the third an alternative to credit for those who for reasons of old age or disability have few if any productive micro-enterprise opportunities.

20. Second, IRDP suffers from the basic misconception that provision of credit is one-time event rather than a continuing relationship between lender and borrower. It is unrealistic to expect the larger share of borrowers to "graduate" just on the basis of an "injection" of credit (the medical terminology is significant). Unlike IRDP, in Gramin Bank, most loanees start with small loans and as the relationship with it improves, the Bank hands out more loan to the same person – recovery oft goes hand in hand with fresh loans. This practice also improves capability of the poor to utilise the loan profitably. His stake in repayment becomes higher.

21. Third, there is still an under-emphasis on activities which require no fixed assets such as trading, service and even simple processing activities. Unlike India, other large micro-enterprise programmes in Bangladesh, the Philippines and Nepal finance a much larger component of petty trading and service activities. Such mix of activities suitable to the poorest of the poor is discouraged in India because of an obsession with asset formation. The Indian practice has restricted the type of livelihood activities that can be financed (milch animals, for instance) making these overcrowded. . Instead of responding to a demand-led pattern of lending opportunities, banks are still restricted to a list of "approved" activities. On the demand side, certain profitable enterprises quickly saturate because of too many loans. In U.P. a bank gave 20 loans for setting up shops in a village of 143 households.

22. Fourth, IRDP totally neglects savings on the mistaken belief that the poor cannot save at all. The distinction by banks between acceptable use of credit for productive purposes and its unacceptable use in consumption is artificial one in the context of poverty. About two-thirds of the borrowing of the Indian poor is for consumption purposes (all of it from the informal sector) of which three-quarters is for illnesses and household

needs in the lean season. In the absence of any system for encouraging even minuscule savings a great deal of IRDP credit gets diverted to emergency consumption needs.

23. Fifth, IRDP does not look into problems of already established micro-enterprises. How can one enthuse the rural poor to become tailors, weavers, shopkeepers, or cattle owners if problems faced by owners of those existing assets are ignored? Rather than give subsidy to new enterprises, it would be far better to help the existing units tackle their problems , be they in design, marketing or working capital.

24. Lastly, IRDP totally lacks "social intermediation," a process by which poor borrowers are encouraged to organize themselves into groups, are given awareness training on the importance of regular savings and credit discipline and are instilled a sense of self-confidence. This function is conducted by the bank itself in several countries – as Grameen Bank and some co-operative banks do in India — and by intermediating Non Governmental Organisations (NGOs). In India the self-help group (SHG) movement is seeking to provide social intermediation through th Rashtriya Mahila Kosh (RMK) and Women's Development Corporations, though they are still small compared to IRDP.

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25. While some poor may have made moderate gains, not more than one in five have succeeded in crossing the poverty line as a direct result of IRDP. Although 5 million cattle were distributed during the Sixth Plan period, this did not get reflected in cattle census numbers. Little attention has been paid to main issues in cattle programme: adequate protection from inclement weather, poor access to grazing lands and veterinary services. These problems can be minimized by group lending which will raise debt-capacity and cut transaction costs. Intermediation by voluntary agencies may also help.

26. Despite attempts to expand public participation in identification of beneficiaries, IRDP remains a highly bureaucratic programme. Benefits could be made far more cost-effective by reforming regular credit delivery system on the one hand and by strengthening credit reception systems through the SHG movement on the other.

27. IRDP has expanded on a scale which has outstripped the capacity of government and banks to implement it. The administrative machinery to monitor local physical investment opportunities against which credit disbursement targets can be fixed simply does not exist. There is consequently over-investment and recycling of dairy animals. Inadequate appraisal and reported political interference contribute to poor recovery and high rates of default. To lift profitability of rural banking in India, there have been suggestions that the power over loan disbursement vest in local banks, free from influence by government and politicians.

28. Because of a distortion of objectives, IRDP's lending policy has tended to be driven by availability of subsidised funds rather than any effective demand for credit. Indicators for monitoring are based on target; they are not achievement-based. In the event, retention and profitability of assets purchased are never monitored.

ALLIED PROGRAMMES

29. One of IRDP's facilitating components, TRYSEM was aimed at providing basic technical and entrepreneurial skills to the rural poor in the age group of 18-35 years to take up income-generating activities. The concurrent evaluation of IRDP (1992-93) showed that less than 4 per cent of beneficiaries received training under TRYSEM. The rural youth so trained were only interested in the stipends; they had not used the knowledge gained under the programme for furthering self-employment prospects. TRYSEM had a weak link with the overall strategy for self-employment in rural areas and with industrial policy. The training was not related to capacity or aptitude of trainees nor to demand for the respective skill. It was impossible for trained rural youth to run a self-employment enterprise, given the poor technological base and uncertainty over availability of credit.

30. Launched in 1992, SITRA was a sub-scheme of iRDP in selected districts but was later extended to all the districts of the country. Under this scheme, a variety of artisans were supplied with kit of improved hand-tools. It was all within a financial ceiling of Rs.2,000, of which the artisans had to pay 10 per cent and the rest was subsidy from the Central Government. Reports indicate that the scheme has been well received by rural artisans and they are able to raise their income levels by use of improved tools.

31. DWCRA aimed at strengthening the gender component of IRDP. During the Eighth Plan, it benefited about 22.67 lakh women who were assisted at an expenditure of Rs.190.72 crore. DWCRA was directed at improving the living conditions of women and thereby of children by offering opportunities for self-employment and access to basic social services. It sought to encourage collective work in the form of group activities that were known to work better and were more sustainable than the individual effort. In the Eighth Plan, DWCRA received a fillip with the government taking several initiatives to strengthen

Box 2: Poverty Programmes: Study Faults 3 States

Incidence of poverty is highest in Bihar, Orissa and Uttar Pradesh. But the manner in which poverty alleviation programmes are implemented in these States would show how not to implement such programmes. Evaluation studies on different programmes in Districts of Balasore (Orissa), Chhapra (Bihar) and Meerut (Uttar Pradesh) were commissioned by Ministry of Rural Development, and the findings reveal that implementation was fraught with severe administrative problems limiting an overall impact.

The study on Balasore found that party politics and monetary considerations influenced selection of IRDP beneficiaries and in most cases selection guidelines were not followed. The selection was not done in the gram panchayats. In Jawahar RozgarYojana (JRY) and Employment Assurance Scheme (EAS), the work was executed by contractors, flouting the guidelines. The work was also of poor quality. What is of greater concern is study's finding that there had been diversion and misappropriation of funds by officials and public representatives in all programmes. Manipulation in documents (measurement books and muster rolls) and rampant corruption have also been reported. In case of IAY, public representatives and block officials demanded Rs 500 to Rs 5,000 to provide houses, according to the study. It has stated that IRDP had failed to achieve its objective, and adds it is a programme in which beneficiary gets money equivalent to subsidy without any liability of repayment; credit manager ensures repayment (by obtaining post-dated deposit and withdrawal slips) and the middleman gets his commission from the beneficiary!

The Chhapra study attributes poor implementation of rural development programmes to lack of receptive environment and decline of political and social institutions. Evidence of all-round helplessness and cornering of the benefits from rural development programmes by the rural rich have created social tensions and disbelief in the administrative system, it states. People's participation has been blocked by an institutional framework dominated by the rural elite. As a result, the study says the overall impact of these programmes in helping beneficiaries cross the poverty line has been a limited one though creation of useful community assets appears to have been a positive outcome. Even here, maintenance of assets leaves much to be desired. Under JRY, a person got employment for less than 21 days during the last three years. The labourers neither got sufficient work nor received prevailing local wages. Women were either not given any work under JRY or deprived wages equal to men. In flagrant violation of the guidelines, contractors and middlemen were involved in a big way and the labour-material norms were flouted in most of the works. EAS was implemented much like JRY, without any distinction. Under EAS, not a single person among the 600 families interviewed could get any work. IRDP beneficiaries failed to get full amount of credit extended to them; they had to shell out 10 per cent or more of the amount as cuts shared by bank and block officials. Evaluation of TRYSEM scheme in Chhapra is quite revealing. It reports that the youth supposed to have been trained received neither training nor any stipend. Places shown as 'training centres' were non-existent. It appears that the stipend and the raw material money were pocketed by vested interests including block officials. Irregular selection, corruption and poor quality of construction were some of the problems reported in the implementation of IAY. DWCRA also failed in the District due to high female illiteracy and a male-domination that allowed no women to take up any avocation. Villagers could not benefit from National Social Assistance Programme (NSAP) due to lack of awareness. People's participation in the programmes was reported minimal due to absence of Panchayati Raj Institutions.

The Meerut Study makes a quick evaluation of rural development programmes and reports of JRY that works were executed as biased towards benefiting general caste areas; the deduced material-labour ratio of 70:30 indicating greater propensity to spend on materials; quality of works was bad in three out of five sample villages; inadequacy of funds at gram panchayat level led to rise of pressure groups fragmenting the village society; there was lack of transparency and the book-keeping was also poor; local labour was not available for JRY works; market wages were higher than the wages paid on these works; and labour contractors usually fudge muster rolls extending the actual days of work done. EAS was by and large redundant scheme in a labour-deficit district like Meerut. Utilisation of funds under this scheme was very poor. Almost all works were being executed through contractors. None of the registered workers had family cards with them. In many cases labour was arranged from outside the block departing from norms. IAY funds were exclusively reserved for SC community. Only one-third of beneficiaries were below poverty line. Most of the beneficiaries reported having paid bribe to get their applications processed. Interestingly, IRDP performance has been gender sensitive, as over 50 per cent of beneficiaries were women. But corruption was rampant and loans were given to not-so-poor beneficiaries. As per BPL survey, the number of eligible families has become small as most villages have reached a saturation point. DWCRA groups were reported to be unstable due to high dropout rate. Banks were reluctant to lend to these groups in the absence of collateral. Activities under the scheme did not yield sufficient returns. NMBS beneficiaries got the money after delivery and very few actually spent it on improving their diet. They wanted food to be given in place of cash. NOAPS beneficiaries wanted their pension at a shorter interval than six months as at present. NSAP was generally a bribery-free programme.

(Source: (1) Evaluation Study Report on the Implementation of various Schemes of Ministry of Rural Development in Balasore District (Orissa), Advantage India Community Development Pvt Ltd, New Delhi, June 1999. (2) Impact Assessment Study of Rural Development Programmes in Chhapra District (Bihar), Asia Pacific Socio-Economic Research Institute, New Delhi, August 1999. (3) Rapid Assessment of Implementation of Poverty Alleviation Programmes in Meerut District of UP, ORG, July 1998.

Box 3: Self-Help Movement in Andhra Pradesh

Andhra Pradesh has taken up empowerment of women under DWCRA. The programme is in the nature of a mass movement by Self Help Groups (SHGs) through thrift and savings and promises to be a potent tool to tackle socio-economic poverty. Here is an opportunity for the women to participate in other programmes like family welfare as well and improve educational and nutritional status of their children. The programme creates in them an awareness about environment and public health and hygiene. There are 79,000 women-formed SHGs covering about 11.25 lakh of them. A 1997-98 survey by DWCRA/ SHGs spoke of the programme's positive impact on the size of the family and number of children going to school.

Not just an allied programme of IRDP, DWCRA in Andhra Pradesh is shaping as a vehicle by which women are encouraged to unleash their inherent potential in the manner they did during the famous anti-arrack movement – but this time to battle for socio-economic development. . A mass savings movement (Podupulaxmi) was launched among women and this has come to give every DWCRA member higher income than non-members.

One of several success stories told in a State Government document is of a group of landless women in Bathalapalli village (District Anantapur) who organised themselves into SHGs, raised bank loan and obtained subsidy through District Rural Development Agency (DRDA) to purchase land. The members created irrigation facility through a bore well from their savings fund. Now, they grow vegetables which yield for each family a monthly income of Rs 1,000-1,500, much improved quality of life and higher status in the society.

Importantly, these SHGs have spread out their efforts into several social programmes covering literacy, health, nutrition and so on. Although DWCRA as a separate programme no longer exists as it got subsumed in SGSY with effect from 1st April 1999, the self-help movement has taken deep roots and works for better implementation of anti-poverty programmes in the state.

(Source: DWCRA and Women's Empowerment: A Success Story of Self-Help Movement in Andhra Pradesh, Panchayati Raj and Rural Development Department, Government of Andhra Pradesh, Dec 1998)

the programme. Some States like Andhra Pradesh (see **Box 3)**, Kerala, Tripura and Gujarat performed very well contrast to most others. The range of activity pursued by DWCRA groups was fairly diverse. However, several groups became defunct over time due to their improper selection, lack of homogeneity among the group members, selection of non-viable activities, poor backward and forward linkages, lack of institutional financial support and professional approach and inadequacy of staff and their insufficient training and motivation.

Swarnjayanti Gram Swarozgar Yojana (SGSY)

32. IRDP and allied programmes such as TRYSEM, DWCRA, SITRA & GKY along with MWS were merged into a single programme under Swarnjayanti Gram Swarozgar Yojana w.e.f. April, 1999. The SGSY is a holistic programme and aims at covering all aspects of self-employment, namely, organisation of rural poor, training, participatory approach to planning of self-employment ventures and provision of infrastructure facilities, technology, credit and marketing arrangements. The scheme is yet to be firmly grounded.

33. However, SGSY is still a credit-cum-subsidy programme and suffers from several of IRDP's ills (already listed above) which would have to be rectified as the micro-credit based activities pick up.

Jawahar Rozgar Yojana (JRY)

34. JRY was launched as Centrally Sponsored Scheme on 1st April, 1989 by merging National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP). Its main objective was generation of additional gainful employment for the unemployed and under-employed people in rural areas through the creation of rural economic infrastructure, community and social assets with the aim of improving the quality of life of the rural poor.

35. An important role was envisaged for the panchayats in JRY's implementation. The funds devolved to village panchayats, intermediate panchayats and district panchayats in the ratio of 70:15:15. The panchayats were responsible for planning and execution of projects under JRY. The programme has encouraged elected representatives to take interest in the selection and implementation of rural works.

36. Evaluation studies of the programme reveal that the employment generated per person was too inadequate to bring about any meaningful increase in the earnings of the beneficiaries. According to a concurrent evaluation carried out by the Ministry of Rural Development during June 1993-May 1994, roughly 11 days of employment was generated per person. At this level, the programme could

not have made any significant impact on the income levels of the beneficiaries. It fell far short of the need to create enough employment in the rural areas to remove unemployment / underemployment.

37. The resources available were spread thinly so as to increase the coverage of areas/beneficiaries without any concern for duration of employment. Projects selected bore no relationship to the local needs or the agricultural development strategy. Neither the location of such works nor their timing was in accordance with the spirit of the programme. As a result, needless projects were taken up to avoid lapse of funds. A study in Uttar Pradesh reports that the timing of works coincided with peak agricultural season and that the selection of works was not done in the gram sabha as required.

38. It appears that the villagers perceived this programme as an asset-building programme rather than as a wage-employment programme. Hence the entire focus was on creation of assets. The works undertaken involved high material cost and were not particularly labour intensive. Instances of violation of materials-labour norm prescribed under the programme were very common. In many areas these norms themselves were considered unrealistic, given the high cost of material.

39. Wage-employment programmes, by effectively intervening in the labour markets, were expected to exert upward pressure on the market wages. This could not happen because of insufficient employment provided by these programmes. However, in a study on poverty alleviation in Uttar Pradesh, the workers engaged under JRY confirmed that they received the stipulated minimum wage.

40. In flagrant violation of the guidelines, in many States projects were executed by contractors who sometimes hired outside labourers at lower wages. They also used trucks and tractors instead of more labour intensive approaches. Instances have also come to notice of projects shown to have been executed in a scheduled caste locality while in fact they had been carried out in upper class area.

41. Women have complained that employment was provided only for the Pradhan's personal supporters or workers willing to sign for higher wages than what was actually received. Such instances of violations abound.

42. The share of women in employment generated under the programme was only 17 per cent. Large number of works could not be completed in time on account of shortage of funds. There have also been instances of differential wages paid to male and female workers.

43. JRY and similar rural works programmes have tended to breed corruption. The fudging of muster rolls and of measurement books is very common resulting in huge loss of funds that could otherwise have been invested in building rural infrastructure. During a field visit to Nuapada (Orissa) it was reported that the documents were found fudged to cover excess payment involved in transporting the materials. There is need to penalise districts that prepare bogus muster rolls by blacklisting them and stopping further development assistance from the Ministry of Rural Development.

44. Notwithstanding some of the problems cited above, two positive aspects of the programme stand out. *Firstly*, the programme did succeed in creating durable community assets in rural areas. Although this was also not without problems like poor quality, inappropriate assets etc, the villagers generally appeared to have liked the idea of building up rural infrastructure especially when the assets were directly relevant to the community such as school building. *Secondly*, the programme led to empowerment of panchayats as the funds were placed at their disposal along with power to get the works executed through line departments. This was good training for panchayats in planning and execution of local works and financial management. Due to growing awareness among people about JRY and other programmes and pressure on elected representatives, the panchayats are likely to implement these programmes more efficiently than bureaucrats. Fear of being voted out may make panchayat leaders more responsive to people's needs.

45. The empowerment of panchayats mentioned above is, however, limited by the fact that the panchayats are still dependent on the bureaucracy for technical appraisal after completion of the project. Unless technical officials are also transferred to the panchayats along with funds and functions, such dependence on bureaucracy will continue and will not be in the interest of effective implementation of anti-poverty programmes. This process has started in some States as a part of the process of empowerment of Panchayats.

46. For greater transparency in the functioning of Panchayati Raj Institutions (PRIs) and proper utilisation of funds, there is need to put in place a system of 'social audit'. Under this system, it should be ensured that all concerned have information about release of funds by DRDAs / Zilla Parishads to Blocks / Panchayats through press notes; similar information should be given to the general public by the implementing departments when they receive funds. Gram Panchayats must display on their notice board information about the works executed, their value, employment generated, payments made along with the list of beneficiaries. This information must be verified

at a meeting of the Gram Sabha. Payments made by executing agencies for the materials should also be similarly made transparent to the public. .

Jawahar Gram Samridhi Yojana

47. Under Jawahar Rozgar Yojana (JGSY), an overriding priority was given to creating wage employment. An evaluation of JRY programme proposed that development of village infrastructure needed to be given greater focus. Accordingly, JRY has been strengthened and restructured as Jawahar Gram Samridhi Yojana w.e.f. 1st April, 1999.

48. JGSY aims at creation of demand-driven community village infrastructure that would enable rural poor to increase opportunities for sustained employment. Employment generation is a secondary objective. JGSY projects would be implemented by village panchayats with the approval of Gram Sabha. DRDA/Zilla Parishad and Panchayat Samities will be responsible for overall guidance, coordination, supervision and monitoring of the projects.

Employment Assurance Scheme (EAS)

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49. Launched on Gandhi Jayanti Day (2nd October) in 1993, the Employment Assurance Scheme (EAS) was initially in operation in 1772 backward blocks. The blocks were identified in drought prone areas, deserts, tribal areas and hill region areas where the Revamped Public Distribution System (RPDS) was in operation. Gradually, EAS was extended to other blocks and by 1997-98 the scheme was being implemented in country's 5448 rural blocks in all.

50. As its primary objective, EAS is set to create additional wage employment opportunities during a period of acute shortage through manual work for the rural poor. The secondary objective is the creation of durable community, social and economic assets for sustained employment and development. Though open to all rural poor, the programme is expected to attract only unskilled people below the poverty line because it offers only the minimum wages.

51. Though EAS funds were meant to be utilised as a last resort, things had not happened that way. An universal coverage triggered increased demand for funds from States beyond their available budgetary resources. Till 1st April 1999, the scheme was of a demand-driven nature and better-off states grabbed a lion's share of funds while the needy ones were left out. To rectify this, it was decided that with effect from 1st April 1999, the scheme would involve specific allocations to each state based on poverty.

52. As experience showed, employment provided under EAS was meagre. The Third Report of 1995 of the Comptroller and Auditor General stated that on an average each person was provided 18 days and 16 days of employment during 1994-95 and 1995-96 respectively.

53. According to a comprehensive evaluation by the Programme Evaluation Organisation (PEO) of Planning Commission in 14 States, EAS is being executed through contractors in most States in violation of central guidelines; the norm of 60:40 for wage and material is not maintained; genuine muster rolls are not being maintained by the Gram Panchayats. Family cards have not been issued; the system of registration of job seekers with Gram Panchayats is not in vogue; and even though Central allocation seems to have been made on the basis of minimum notional requirement, a vast majority of the Blocks did not get this allocation. This could be due to the inability of the States to contribute their matching share in the pooled fund for EAS.

54. As to EAS' impact, the study found that the estimated proportion of registered job seekers who actually got any employment was as low as 25 per cent in sample villages. The average number of days of employment per person per year was less than 53 as per official records. However, information gathered from the beneficiaries reveals that 69 per cent of them got less than 30 days of employment and another 17 per cent between 30 days and 50 days. The overall average for the sample States works out to 31 days.

55. Even in the matter of asset creation, the study finds that Central norms have not been followed. For example, none of the sample States has earmarked 40 per cent of funds for watershed development and 20 per cent for minor irrigation, link roads and buildings for schools and anganwadis. In Bihar, 69 per cent of EAS funds were allocated to activities like school buildings/anganwadis which are not labour-intensive. Similarly, in Gujarat, Haryana and West Bengal the unit cost of employment generation in school buildings / anganwadis is abnormally high (Rs 200 to Rs 300). It is difficult to justify allocation of funds to such activities under employment generation scheme. No inventory of assets was kept and it was difficult to know whether the asset created was community asset or private one.

56. A profile of the EAS beneficiaries shows that over 78 per cent belonged to daily wage earning class. To that extent the scheme appears to have been well-targeted.

Although bulk of EAS beneficiaries were illiterate or below matriculation level, some skilled and semi-skilled workers were also among them. This is further supported by the wide variation in wage rates paid in some states (for instance, Rs 25-100 in Rajasthan, Rs 22-150 in Tamil Nadu and Rs 20-80 in Madhya Pradesh). This could also be a reflection of the involvement of contractors who may have shown their employees as EAS beneficiaries.

57. The PEO study concludes that EAS has not realized its objectives of generation of sustained and gainful employment, supplementing the income of rural wage-earning class in agricultural lean seasons and improving the well-being of rural poor. With universalisation of EAS and without an element of assurance of employment of 100 days in a year as initially envisaged, there is practically no difference between JGSY and EAS except that the former is being implemented through PRIs and the latter by the administrative apparatus. There is, therefore, need to have another look at EAS.

58. Like other wage and self-employment programmes, EAS will have to be so designed that it provides short-term employment while it leads to improvement in productive capacity of individuals and areas so as to make for greater employment on a sustainable basis. This entails preparation of a district plan based on resource endowment and felt needs of the people. It is unfortunate that the Ministry in the revised guidelines for EAS no longer permits watershed development programmes on the ground these take more than a year to complete. However, these were leading to sustainable development of agriculture in poor areas leading to creation of job opportunities in the farm sector on a permanent basis. Works taken up under EAS should be viable and integrated with development plan of the area. Sectoral programmes of agricultural development should focus on works that enhance productivity of land such as soil and moisture conservation and drainage. Sectoral and wage-employment programmes should not be separate regimes but work as an integrated programme.

59. Several lacunae have come to notice in the design and implementation of EAS. First, bogus reporting. Field staff have learnt to report figures in the manner expected of them, that is, they must show that targets have been fully achieved irrespective of what the ground situation is. Collectors are under pressure to furnish utilisation certificates so that states could draw the next instalment from the Centre. Money is considered to have been spent once it is allotted from district to panchayats, even when no physical expenditure has taken place.

60. Second, employment generation programmes create incomes for the rural poor but leave no assets behind. Once such programmes are withdrawn, the poor may again fall below the poverty line in the absence of family based assets.

61. Third, development of vital infrastructure like road, water supply, electricity, schools and the like is neither labour-intensive nor results in assets primarily for use by the poor.

62. Fourth, employment schemes provide massive funds for road and school construction, in which villagers become (temporary) state employees of the concerned departments and thus remain in a continued state of psychological dependence and expectation from the state.

63. Lastly, such programmes have encouraged corruption, both at political and administrative levels.

64. According to instructions issued by the Ministry, people seeking work in EAS have to apply and get registered first, a project report is prepared and submitted to the Collector and then the Collector will seek funds from the Ministry. In practice, this order is seldom followed and, in many cases, the reverse happens. That is, the Collector receives funds first, then decides the area where funds would be spent (the choice of area is often on political grounds), the Department to whom these funds would be placed follows it by preparation of a project and in the end during execution of the project the Department gets applications from those actually employed. In this manner, Collectors have a lot of discretion in deciding the placement of these funds with Departments such as PWD, Agriculture, Soil Conservation, Rural Engineering Service, Minor Irrigation etc. An unhealthy race among the Departments for funds can be checked if the Ministry insists on the correct sequence of activities. In other words, before any money is released to DRDA, the Collector must specify the Departments to whom these funds will be released and how much; and while seeking second and subsequent instalment of funds, Collector must certify that funds were given to the Departments mentioned in application for the first instalment. Collectors should also ensure coordination between Departments so that the poorest regions are covered in desirable economic activities. Lastly, applications from those seeking work must precede preparation of projects.

General Issues in EAS/JRY Programmes

65. The above review of employment-oriented programmes such as Employment Assurance Scheme and Jawahar Rozgar Yojana has highlighted certain lacunae, yet it needs to be recognized that these programmes have also played a major role in tackling

issues of transient poverty and providing immediate succour to the rural people during natural calamities such like drought, floods and earthquake. The need for such public works programmes has been universally accepted and acknowledged by researchers in the field of rural development in India and by international experts and donor agencies. It is, however, imperative to strengthen these programmes and create a delivery mechanism which would take them to intended beneficiaries without leakage or diversion of funds along the way.. In this regard, a few steps could be taken and are listed below:

- EAS should be limited only to those districts where minimum agricultural wages are at least 25% below the statutory minimum wages fixed by Government. In at least half of the districts actual wages are above such minimum wages. The proposed limits will help curb incidents of fudging of muster rolls and accounts.
- Each Technical Department must supply a list of those paid under EAS works to the concerned Gram Panchayat along with date of the payment, and Gram Panchayats in turn must check out the list. The verification certificate should be signed by at least half of the Gram Panchayat Panchs and sent to the concerned Department. No Department should be given funds for the second time without such a certificate from the Gram Panchayat.
- The list of workers along with the number of days they have been given jobs under EAS and JRY should be displayed in each office of the Gram Panchayats and outside village schools. Similar information about beneficiaries of all other programmes like IRDP, IAY, etc. should also be displayed. Important meetings of Gram Sabhas should be videographed and a permanent record of such videos kept.
- In order to promote people's participation and ensure that Gram Panchayats and Gram Sabhas do not get reduced to the office of just the village president, each Gram Sabha should raise 30% of the allocated JRY/ EAS funds through contribution from the public as a pre-requisite to receiving such funds. For backward and tribal blocks, the contribution may be reduced to 15%.
- States as have not held elections to village level panchayats without a valid reason should not be given JRY funds. Their share of the funds should be kept in suspension and passed on to the panchayats with the backlogs after elections are held.
- When funds are released by DRDAs/Zilla Parishads to Blocks or Panchayats, a Press note should invariably be issued about the date and amount so released to various offices. This move will help improve transparency. Similarly, all departments getting EAS funds will also issue a Press statement about dates of execution of works and when payments were made to the workers. This will reduce complaints that payments to workers are often delayed. A monthly gazetteer should be published at the district level setting out all works with details of individual workers and number of days they have been employed. It should not be a routine statement of man-days of employment created. The gazetteer should be made available to all concerned.
- Departments such as the DRDAs and Blocks which have more dealings with rural people should be assessed by an independent professional organisation consisting of journalists, activists, NGOs and retired government servants once in three years. The review should look at policies and performance and recommend constructive steps for improvement. The Ministry of Rural Development at the Centre can help in the setting up of such evaluation organisations. Systems of inspection as now exist are elaborate but often preclude the possibility of a 'fresh look' being totally governmental and rigid. The system should be more open and bureaucracy should gain from the expertise of outsiders in the mode of donor agency evaluation of projects and so develop a feeling of greater accountability. The teams may consist, in addition to government servants, of development practitioners from other fields, academicians and even members of the public.

66. Employment Assurance Scheme was restructured in 1999-2000. It is now an allocation based scheme. The funds would be shared by the Centre and State Governments in the ratio of 75:25. Allocation to the States would be based on incidence of poverty and district-wise allocation within a State on the basis of an index of backwardness. The index would relate to proportion of SC/ST population in the district and the inverse of agricultural production per agricultural worker. Seventy per cent of the funds flowing to the districts would be allocated to the blocks and the rest reserved at district level and would be utilised in areas of acute distress and labour migration.

67. In order to improve the efficacy of the programme and ensure that the poor and unemployed get up to 100 days of employment in lean agriculture seasons, it is necessary to restrict the programme to areas which are backward characterised by poor agriculture; chronic poverty and hunger.

National Social Assistance Programme

68. The National Social Assistance Programme (NSAP) was introduced as a 100 per cent Centrally Sponsored Scheme on 15th August 1995. It has three components: namely (i) National Old Age Pension Scheme (NOAPS), (ii) National Family Benefit Scheme (NFBS) and (iii) National Maternity Benefit Scheme (NMBS). The programme represents a significant step towards fulfilment of the Directive Principles in Articles 41 and 42 of the Constitution. NSAP supplements efforts of State Governments with the objective of ensuring minimum national levels of well-being and the Central assistance is not meant to displace the State's own expenditure on Social Protection Schemes. The States/Union Territories (UTs) may also expand their own coverage of social assistance independently wherever they wish to do so.

69. After some trouble in initial years, NSAP is now a popular programme. The entire allocation of Rs 560.00 crore in 1997-98 and Rs 640.20 in 1998-99 was fully utilized.

70. NSAP was evaluated by Operations Research Group (ORG) three years after its implementation. The study was taken up in eight States (Andhra Pradesh, Bihar, Gujarat, Kerala, Madhya Pradesh, Maharashtra, Orissa and West Bengal). It reveals low levels of physical achievements for all the three Schemes in the first two years of implementation. However, in the third year, achievement under NOAPS has surpassed targets in most of the States whereas achievement under NFBS and NMBS continues to be low.

71. The programme has largely reached SC/ST population and women. The coverage of women in NOAPS was found to be 40-60 per cent and in NFBS 40-50 per cent. Though age norms prescribed under the programme were being followed, the criteria of identifying "destitute" were not clear and different states followed different bases. The responsibility of identifying destitutes has been entrusted to panchayats which were not always aware of the criteria. The programme appeared to have been well targeted.

72. Lack of awareness about the programme is a major problem. There is no formal system for information dissemination. Wherever gram sabhas are in place and meet regularly the information dissemination is effective.

73. The procedure of registration involves production of several proofs and certificates, which makes it very cumbersome. The panchayats may be entrusted the responsibility of verifying facts and claims.

74. The NOAPS has been a successful scheme. In the sample states, about one-third of the beneficiaries were found to be neglected by their offspring or were living alone; another one-third were found to have a dependent (mostly spouse) and in remaining cases, the beneficiaries did not have a regular source of income. However, in some States the benefits were distributed once in two months and in some others there was no fixed frequency for distribution.

75. The evaluation revealed that the NFBS beneficiaries either saved the assistance money in a bank or used it to repay old debts. Use of benefit in income generating activities was negligible. There have been cases of corruption in implementation of the programme.

76. Most NMBS beneficiaries reported having received the benefit after the delivery. This was due to late submission of claims. There is need to create awareness about the scheme among the target segment so that claims are made well in time. The procedure under this scheme, and other schemes under NSAP, needs to be simplified and made more transparent to make it all hassle-free.

77. The financial and physical performance of major rural development programmes during Ninth Plan is given in Annexure **1 & 2.**

State-Level Initiatives

78. Apart from Central government programmes discussed in the previous sections, several State Governments have initiated their own rural development programmes. In many instances, the state initiatives have been the precursor to many countrywide programmes. Those initiatives are not only in line with the policy of democratic decentralisation but can supplement the centrally sponsored schemes. The State Governments are better placed to understand the felt needs of the local people and can respond more effectively. It has also been seen that where such State level initiatives have strong political backing, the performance has been laudable. The table below enumerates some sample State initiatives:

Rural Housing (Indira Awas Yojana)

79. The Central Government is implementing Indira Awaas Yojana (IAY) since 1985-86 with the objective of providing dwelling units free of cost to Below Poverty Line (BPL) families in rural areas. Till end of the Eighth Five-Year Plan i.e. 1996-97, 37.21 lakh houses were constructed with a total expenditure of Rs.5,029 crore. Rural housing received a fillip in 1996 when the Central Government

identified 'Housing' as one of the seven components under the Basic Minimum Services (BMS) agenda to provide housing to the shelterless poor in rural areas in a time bound manner.

80. The 1991 census put rural housing shortage at 137.20 lakh, of which 34.10 lakh households were without shelter and 103.10 lakh households lived in 'kutcha unserviceable houses.' It has been estimated that between 1991 and 2002, an additional 107.50 lakh houses in rural areas would be required to keep pace with population growth. By 2002, the total requirement of houses in rural India is projected at 244.70 lakh. However, during the period 1991 and 1997, 57 lakh houses have already been constructed through on-going Indira Awaas Yojana (IAY), State Governments, HUDCO, etc. Therefore, the net housing shortage between 1997 and 2002 is estimated at 187.70 lakh houses; of these, 84.60 lakh would be new houses while 103.10 lakh Kutcha unserviceable houses require upgradation.

81. As reflected by the 1991 Census, housing shortages exist in almost all States, but in a few States the magnitude of the problem is acute. Bihar accounts for nearly one-third of total housing shortage followed by Andhra Pradesh, Assam, Uttar Pradesh and West Bengal, which together account for another 44.64 per cent. In each of the remaining States, the housing shortage is less than 5 per cent.

82. IAY only addresses the problem of shelter faced by BPL families. However, there are several other households just above the poverty line but who belong to the Economically Weaker Sections (EWSs) and are in need of housing as well. Therefore, the housing requirement of this income segment also needs to be met. There is virtually no institutional finance in the rural housing sector except for limited amounts provided by Housing & Urban Development Corporation (HUDCO) schemes.

83. There are serious lacunae in rural housing strategy. Under the existing dispensation, the DRDAs/ Zilla Parishads make allocations and target how many houses are to be constructed panchayat-wise. Thereafter, the gram sabhas are expected to select the beneficiaries from out of a list of eligible households as per target for the gram panchayat. Given the huge size of potential beneficiaries waiting out for allotment of free house, gram panchayats may not find it easy to offer more than a limited few households each year. This could cause a rift among

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State	Name	Year of start	Nature of the scheme
Tamil Nadu	*Namakku Name Thittam*	1997-98	village level development such as construction of buildings, creation and improvement of minor irrigation works, and construction of bridges, culverts and road
Tamil Nadu	*Anna Marumalarchi Thittam*	1997-98	convergence of all basic minimum services namely drinking water, primary education, public health, nutrition, shelter, rural roads and connectivity and fair price shops
Gujarat	Gokul Gram Yojana	1995-96	provides basic infrastructure to all villages within a time frame of five years, such as all weather approach roads, drinking water, construction of village ponds with bathing ghats, construction of primary school rooms, community halls, community worksheds and village afforestation
Andhra Pradesh	Janmabhoomi	1st January 1997	People-centred development aimed at comprehensive rebuilding of villages and towns with people's participation in the decision making process
Rajasthan	Apna Gaon Apna Kaam	1st January, 1991	promoting self dependence and encouraging participation of the local community in planning and creation of public assets and their maintenance; rural people/donors/ NGO/Community groups contribute a minimum of 30 per cent of the amount in the form of public contribution,
Kerala	Kudumbashree	August 1998	Self-Help Group (SHG) approach for housing for the poor, low cost sanitation, community water supply, literacy centres, training programme for skill upgradation, etc.

the poor themselves. There would also be pressure from the local MLAs and MPs. A first best course out of it is to link allotment to those who have tried to form self help groups and/or are taking advantage of other poverty alleviation programmes in the desired manner. That will make the housing strategy an integral part of the poverty alleviation agenda. The second option could be in terms of covering select districts or blocks at a time so as to saturate an area. The magnitude of the problem has grown since the 1991 Census estimated the housing shortage. Now, every household below the poverty line is a claimant to free pucca house under the IAY. In this situation, it is imperative to target the programme better via a holistic look at poverty problem at the household level.

Land Reforms

84. The Ninth Plan identified Land Reforms as an important policy instrument for alleviation of rural poverty. However, little has been done by the states in this direction.

Ceiling on Land Holdings :

85. As per the 1992 National Sample Survey (NSS) data, only 23% land was involved in holdings of ten hectares and above. Therefore, the scope for further ceiling reforms is limited. Nevertheless, it is important to ensure that existing ceiling limits are imposed and surplus land is distributed to the poor. On the other hand, there is need to guard against the relaxation of ceilings. Some States have done so in order to promote commercial farming and develop plantations. For example, Karnataka has relaxed ceilings for horticultural lands and Orissa is considering it for cashew plantations. West Bengal is also considering such relaxation for fish ponds. These steps are seen to be retrograde and against the interests of the poor.

86. At this juncture there are three areas in which reforms are vital from the viewpoint of growth and social justice. These are tenancy reform, prevention of alienation of tribal land and land rights of women. The issues are considered in brief in the following paragraphs.

Tenancy Reform:

87. A ban on leasing was imposed after Independence in almost all states to encourage owner-cultivation and offer security of tenure to sharecroppers and tenants. Such laws should continue in areas characterised by semi-feudal mode of production and may even be strengthened in tribal areas where agricultural markets are not well developed. But in green revolution areas where the mode of production has become capitalist there is a need to liberalise and rid leasing-in of land by the landless and marginal farmers from all government controls. However, such liberalisation should be only to permit small and marginal farmers and agricultural labour to lease in either from other small farmers or from big farmers. Reverse tenancy should not be encouraged nor tenancy reforms diluted in backward areas.

88. The rationale for legalising tenancy in developed regions would include:

- The rural poor will have access to a larger area of agricultural land. In many states, tenancy reform has resulted in land owners leaving their land uncultivated due to the fear that they may lose the land if they lease it out. The lifting of the ban on leasing may encourage such land owners to lease out their land, thereby resulting in better utilisation of the available land which may be lying fallow hitherto, in fuller absorption of human labour and in increased farm output.
- Legalisation will increase poor people's access to land in regions where large land owners tend to migrate for taking up non-farm occupation since there would be no risk of losing land rights because of leasing out. Lease market facilitates a shift of control of land to the small holders and tenants.
- The advantage of cheap family labour favours the poor to lease-in land and, therefore, liberalisation of tenancy would enable the small and marginal farmers to augment their operational holdings by leasing in land.
- In progressive states, landlords tend to assume greater risks and accountability in the process of production and, therefore, lifting the ban on leasing and enabling tenancy to be controlled by market forces would benefit small operators. These operators, thus, would be able to lease in more land. It would also facilitate labour mobility as small owners on their part would be able to lease out their land as well without fear.

89. In districts with high productivity, rapid agricultural growth and well-developed commercial agriculture, leasing should be freely allowed. Similarly in districts where tenancy reforms have taken place and the old exploitative relations substantially weakened, such as Rajasthan, Maharashtra, Gujarat, and Karnataka, leasing should be allowed without any restrictions. However, in districts that continue to be feudal with poor agricultural growth and a high degree of inequality, the policy should be for rigorous implementation of the existing laws. If this is not considered politically desirable, one should wait and watch the results of implementation of liberalisation in other areas.

90. More precisely, provisions of law pertaining to definitions of 'tenant', 'personal cultivation', 'resumption" and 'fair rent' will have to be amended in select districts to reflect indicators like land holding pattern, degree of concentration of land ownership, agricultural growth, agricultural productivity and existing tenancy arrangements. Other sections in law relating to prohibition of tenancies will have to be deleted in such areas. For example, Section 5 of the Karnataka Land Reforms Act which prohibits the leasing of land except by soldiers and seamen will have to be amended to include leasing by all landless agricultural workers and marginal farmers. Amending tenancy laws to allow leasing in will ensure greater accessibility of the rural poor to agricultural land and in turn enhance employment opportunities.

Preventing Alienation of Tribal Lands :

91. The process of alienation of tribal land has continued since independence because of an influx of non-tribals into tribal areas as a result of various developmental projects, exploitation of natural resources and industrial activities. It is an irony that on the one side outsiders/non tribals become destitutes and infiltrate into the Schedule areas in the name of development, while on the other hand local tribal population migrate to urban areas in search of employment/job opportunities. This has given rise to severe discontent in the tribal areas.

92. One study of four districts Dhenkanal, Ganjam,Koraput and Phulbani in Orissa has estimated that about 56 per cent of the total tribal land was lost to non tribals over a 25-30 year period. Of this, 40 per cent was lost through indebtedness and land mortgage, 23 per cent through encroachment, 17 per cent as a result of displacement by development projects, 15 per cent through personal sale and the balance due to floods and other natural calamities. A less well-understood pattern is the administrative erosion of tribals' communal land rights through survey and settlement operation. In recent decades, the cadastral survey by chain survey method has gradually given way to the plane-table method to reduce operational costs. But land with a gradient greater than 10 percent cannot accurately be surveyed by the plane table method, and in Orissa these unsurveyed lands have customarily been lumped together as 'uncultivable wasteland' in the record-of-rights in land. In reality, much of this area was owned by tribal households and was cultivated in demarcated plots on which fruit trees had been planted. The outcome thus is catastrophic for tribal groups.

93. Lack of legal awareness about land rights among tribals as well as among Government officials and ineffective administrative structures have resulted in alienation of land. Inherent deficiencies exist in legal provision such as absence of machinery to initiate suo motu action, general period of limitation for adverse possession, lack of provision against trespass and against fraudulent and collusive transfer of land to non-tribals. Since the tribals are generally ignorant of the legal provisions and processes they get easily exploited.

94. Improper land records of tribal lands have also led to the alienation. For proper maintenance of such documents, an in-depth scrutiny of methods for preparation of land records and maintenance and updating of those records in the tribal areas must be carried out at the earliest. Further, computerisation of land records should be accorded highest priority for the tribal areas.

95. The Provision of the Panchayats (Extension of Scheduled Areas) Act, 1996 was enacted for extending 73rd Constitutional Amendment Act, 1992 to Scheduled Areas in eight States: Andhra Pradesh, Bihar, Gujarat, Himachal Pradesh, Madhya Pradesh, Maharashtra, Orissa and Rajasthan. That enactment is intended to enable tribal society to assume control over its own destiny and preserve and conserve its traditional rights over natural resources including land. However, the stringent provisions of this law have remained only on paper and have not been put into operation by the state governments.

Land Rights of Women

96. Land reforms policy in the past failed to address the question of land rights of women. Women's participation in agriculture is substantial; it is estimated that 78 per cent of women workers are in agriculture compared to 58 per cent of male workers. There is a growing feminisation of agriculture with an increase in the number of *de facto* female-headed rural households. Yet due to their unequal share in landed property, the socio-economic status of women is generally lower than that of men.

97. Gender inequalities exist in both inheritance laws and land reform laws passed by various states. In a number of North Western States, including Haryana, Punjab, Jammu & Kashmir, Himachal Pradesh, Delhi and Uttar Pradesh, the land inheritance devolves on male lineal descendants and consequently, widows and daughters inherit only in the absence of male heirs. In Uttar Pradesh section 171 of the Zamindari Abolition Act bars any female child from inheritance of agricultural land. In some States, women cannot even buy agricultural land because in the absence of recorded land rights they cannot prove that they are agriculturists. In most cases, the gender bias exists due to the continued recognition in the Hindu Succession Act of Mitakshara joint family property in which sons — but not daughters — have rights by birth. However,

States like Karnataka, Tamil Nadu, Andhra Pradesh and Kerala have amended the Hindu Succession Act, 1956 to formalise issues related to women's right to property including land. Still some anomalies persist as only daughters are included as coparceners no other female heirs.

98. The following measures are needed to make the inheritance laws in relation to agricultural land more gender equal:

(i) Amendment of the Tenurial laws by State Governments to ensure gender equality;

(ii) Amendment of the main inheritance laws (both the Hindu Succession Act and the 1937 Shariat Act) so that (a) all property is treated uniformly, thereby bringing agricultural land under the purview of the respective laws for both Hindus and Muslims and (b) equal shares of males and females in all property.

(iii) Partial restriction on the rights of testation which in practice work against the female heirs as parents are likely to leave wills favouring the sons; and

(iv) Ensuring that if women relinquish their claims, the relinquishment is done through a formal deed rather than informally.

Computerisation of Land Records

99. The Centrally Sponsored Scheme on *Computerisation of Land Records* was started in 1988-89 as a pilot project in eight States. The sole objective then was to ensure issue of timely and accurate copies of record of right to the land owners by the Tehsildar. By the end of the Eight Plan, 323 districts in the country were brought under the scheme with an expenditure of Rs.64.44 crore. During first three years of the Ninth Plan, about Rs 77 crores have been spent on the scheme.

100. Several factors have constrained the progress of computerisation of land records. These include delay in transfer of funds to implementing authority by the State Governments, power shortages and delay in construction of room with air conditioner for installation of computers and other equipment, delay in development of appropriate and comprehensive software as per requirement of the State Government, delay in supply and installation of the hardware by the National Informatics Centre (NIC), lack of adequate training facilities to staff to handle computers and non-availability of good vendors for taking up data entry work.

101. The updating of land records can be expedited even without computerisation through the involvement of Panchayati Raj Institutions (PRIs) and local revenue functionaries. The village level revenue functionaries should be placed under the control of the Gram Panchayats, though the appellate jurisdiction should continue with the tehsildar. At the district level, the land revenue system must work under the Zilla Parishad. The 30 per cent representation for women in PRIs should help the cause of women in so far as recording of rights of women in land is concerned. Moreover, steps have to be taken to bring about greater transparency in the administration of land records, with access to information regarding land holdings on demand by any individual, copies of land records including record of rights, field books/maps. Land Pass Books as also mutation statements, status of land and jamabandi registers should be accessible and copies provided on payment of a fee.

Resettlement of Persons Displaced by Compulsory Acquisition of Land

102. The process of economic development often requires acquisition of land for setting up projects either in public or private sector. This leads to enormous hardships to the displaced families. Apart from depriving the persons of their land, livelihood and the resource base, displacement has other traumatic, psychological and socio-cultural consequences. Therefore, there is a need to avoid large-scale displacement particularly of tribals but it is often unavoidable and the issue of a comprehensive resettlement and rehabilitation package for them is a major concern of government.

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103. The draft National Policy for Resettlement and Rehabilitation, although under discussion for the last three years, is yet to be finalised. So is the fate of draft legislation on the Land Acquisition Act.

Delivery Mechanism For Rural Development Programmes

104. Successful implementation of rural development programmes requires adequate funds, appropriate policy framework and effective delivery mechanism. Past experience shows that mere availability of funds is no solution to rural poverty. Nor is the design of the rural development programmes, no matter how refined it is, sufficient in itself. The success ultimately depends on the capability of the delivery system to absorb and utilise the funds in a cost-effective manner. An effective and responsive district level field machinery should have a high degree of commitment, motivation, professional competence and, above all, integrity. Stated objectives

need to be internationalised and widely shared by members of bureaucracy from Collector down to the village level worker.

105. An effective delivery system should be one that ensures people's participation at various stages of implementation of the programmes, transparency in the operation of the schemes and adequate monitoring mechanism. PRIs can play an important role in improving the efficiency and effectiveness of the schemes and reducing leakages that have been a bane of the Government sponsored scheme. Though the guidelines on implementation provide for a close coordination between governmental agencies and PRIs, such coordination is sporadic in practice and far between. Non Governmental Organisations (NGOs) have been playing an active role in building up people's awareness and providing support to governmental agencies and Panchayati Raj Institutions in executing projects for development in rural areas. NGOs can play an important role in capacity building, access to information, organisation of rural poor into self-help groups and increasing their awareness and capabilities.

Conclusion

106. Eradication of rural poverty from a level of 55 per cent in 1973-74 to around 36 per cent in 1993-94 has been a major achievement of India's growth strategy that combined accelerated rural growth, both farm and non-farm, and direct attack on rural poverty through various programmes including investment in human development. States experienced reduction in poverty in varying degrees. The strategy also differed across States making it difficult to prescribe a single model of poverty reduction that would work across the length and breadth of the country. It is, however, evident that without growth, any substantial reduction in rural poverty is not possible. However, while growth may be a necessary condition to make a dent in poverty levels, it is by no means sufficient. The pattern of growth which creates conditions for benefits to trickle down is equally important. It is seen that a growth strategy that is embedded in rural areas and focuses on creation of rural social and economic infrastructure has much greater chance of success than an urban-oriented, industry-based growth strategy.

107. Although substantial reduction in poverty has taken place since mid-'seventies, there is no room for complacency on this issue. If one goes by the thin samples of the National Sample Survey, both the incidence of rural poverty as well as the number of rural poor may have gone up in 1998-99. However, preliminary results from the first six months of the 1999-2000 survey (full sample) suggest that poverty has declined. While one may have to wait for the full results of the 1999-2000 survey to become available before pronouncing definitively on this issue, it is clear that poverty has not declined to the extent targeted. One reason could be that the factors that contributed to decline in rural poverty may be losing momentum in the 1990s calling for further reform to reverse this trend. Agricultural growth which is the single important contributor to rural prosperity has slowed down in the 'nineties and is also less well-spread across regions. This calls for a review of the policies responsible for hindering agricultural growth. The dynamism of rural non-farm sector also needs to be fully tapped by appropriate policies.

108. The role of anti-poverty programmes to supplement the growth effort not only is valid in the post-reform period but becomes even greater to protect the rural poor against adverse consequences of economic reforms. While the experience with such programmes is not as encouraging as one envisaged, there have been pockets of good performance which give enough reason to be hopeful. The Ninth Plan recognised the need to restructure such programmes for effective implementation and for enhancing the productivity of the beneficiaries in the rural areas. A major weakness in the implementation of poverty alleviation programmes has been the lack of participation by the people for whom the programmes are meant. There are enough success stories that indicate that whenever people have organised themselves into small homogenous groups for a common cause, the results have been far superior to programmes thrust upon them by bureaucratic apparatus. Such efforts at micro level need to be further strengthened to improve the efficiency of anti-poverty programmes. Strong local governance such as expected from Panchayati Raj Institutions – responsive to the needs of beneficiaries, one which encourages mobilisation of the rural poor and is open to social audit — promises better delivery system of the poverty alleviation programmes. Side by side, the rural financial system should be so reorganised and re-oriented that it treats the rural poor as credit-worthy clients and not as recipients of doles from the Government. The anti poverty programmes have been reoriented to improve their efficacy. The restructured programmes have been in operation from 1st April, 1999 and their effectiveness in achieving the objectives set for them would need to be evaluated after a period of 2-3 years.

Annexure-1

Financial Performance of Major Rural Development Programmes during Ninth Plan

(Rs. Crore)

Sl. No.	Programmes	1997-98		1998-99 (Provisional)		1999-2000 (Provisional)	
		Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
1.	Jawahar Rozgar Yojana (JRY)/ Jawahar Gram Samridhi Yojana (JGSY) **	2499.21	2439.38	2597.03	2518.92	2205.58	1029.59
2.	Employment Assurance Scheme (EAS)*	2460 48	2904.97	2485.15	2819.77	2432.07	1160.68
3.	Integrated Rural Development Programme (IRDP)/Swarnjayanti Gram Swarozgar Yojana (SGSY) @	1133.51	1109.54	1456.28	1160.89	1231.37	1260.74
4.	Training of Rural Youth for Self Employment (TRYSEM) @	90.25	80.74	45	59.78		
5.	Development of Women and Children in Rural Areas (DWCRA) @	75.60	76.84	155.86	83.80		
6.	Indira Awaas Yojana (IAY)	1440.85	1591.48	1854.62	1802.67	2132.34	1013.99
7.	Million Wells Scheme (MWS) @	559.09	462.83	561.10	474.35		
8.	National Social Assistance Programme (NSAP) :	732.96	546.65	803.91	701.18	767.05	493.27
	(a) National Old Age Pension Scheme (NOAPS)	463.97	362.52	490.95	450.64	476.24	317.20
	(b) National Family Benefit Scheme (NFBS)	175.82	129.55	220.37	183.02	198.03	130.09
	(c) National Maternity Benefit Scheme (NMBS)	93.18	54.58	92.59	67.53	92.78	45.97

** JRY has been restructured as JGSY with effect from 1999-2000.

@ SGSY was introduced w.e.f. 1999-2000 by merging IRDP and its allied programmes of TRYSEM, DWCRS. SITRA and GKY; and MWS.

As per Report on Financial and Physical progress of Rural Development Schemes prepared on 3.3.2000 by Ministry of Rural Development.

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Annexure 2

Physical Performance of Major Rural Development Programmes during Ninth Plan

(Rs. Crore)

S.N.	Programmes	Unit	1997-98		1998-99 (Prov.)		1999-2000 (Prov.)	
			Target	Achievment	Target	Achievement	Target	Achievement
1.	Jawahar Rozgar Yojana (JRY)/ Jawahar Gram Samridhi Yojana (JGSY) **	Lakh mandays	3867.00	3958.00	3966.57	3752.10		1450.05
2.	Employment Assurance Scheme (EAS)*	Lakh mandays		4717.74		4165.31	4089.50	1515.16
3.	Integrated Rural Development Programme (IRDP)/Swarnjayanti Gram Swarozgar Yojana (SGSY) @	Families/ Self help Groups assisted in Lakhs	–	17.07		16.64		3.03
4.	Training of Rural Youth for Self Employment (TRYSEM) @	Youths assisted in Lakhs	3.04	2.51	2.88	1.71		
5.	Development of Women and Children in Rural Areas (DWCRA) @	Lakh Groups	0.30	0.34	0.62	0.47		
6.	Indira Awaas Yojana (IAY)	Lakh houses	7.18	7.71	9.87	8.35	12.72	4.60
7.	Million Wells Scheme (MWS) @	Lakh Wells		0.95		0.95		
8.	National Social Assistance Programme (NSAP) :							
	(a) National Old Age Pension Scheme (NOAPS)	Lakh beneficiaries	17.95	50.93	48.79	64.21	55.96	76.29
	(b) National Family Benefit Scheme (NFBS)	Lakh beneficiaries	3.39	1.83	2.12	2.62	1.90	1.40
	(c) National Maternity Benefit Scheme (NMBS)	Lakh beneficiaries	33.88	15.57	17.81	15.12	17 81	8.13

**** - JRY has been restructured as JGSY with effect from 1999-2000.**

@ - SGSY was introduced w.e.f. 1999-2000 by merging IRDP and its allied programmes of TRYSEM, DWCRS. SITRA and GKY; and MWS.

 # - As per Report on Financial and Physical progress of Rural Development Schemes prepared on 3.3.2000 by Ministry of Rural Development.

(Source : Ministry of Rural Development)

CHAPTER 7

BASIC MINIMUM SERVICES

It has been long recognised that access to minimum level of social infrastructure facilities must be an integral part of a strategy for improving the quality of life of the people and for eradicating poverty. Over the last decade, considerable progress has been made in improving access to primary health care facilities, primary education, safe drinking water and shelter as reflected in an expansion of coverage and also improvements in the indicators of human development.

2. The primary responsibility for provision of funds for these sectors and for planning and implementation of specific programmes lies with State/Union Territory (UT) Governments. However, there has been a recognition that the States do not have adequate resources to provide the basic minimum services (BMS) to their entire population. In specific areas, Centrally Sponsored Schemes (CSS) were introduced to complement the efforts and resources of the States.

3. In 1996, a conference of Chief Ministers was held to review the situation about the availability of BMS to the people. The conference identified seven basic minimum services for priority attention: primary health care, universalisation of primary education, safe drinking water, public housing assistance to all shelterless poor families, nutrition, connectivity of all villages and habitations by roads, and streamlining of the public distribution system (PDS) with a focus on the poor. The Conference recommended that the entire population should be covered by the programme in a time-bound manner. In response to the Chief Ministers' recommendations and in recognition of the fact that States faced financial constraints, the Central Government decided to provide some additional funds to supplement States' resources. A separate budget head was introduced in 1996-97 with provision for Additional Central Assistance (ACA) for the Basic Minimum Services.

4. The BMS strategy is to mobilise resources and direct efforts to achieve 100 per cent coverage of the population with access to these basic minimum services in a time bound manner. To ensure an adequate level of investment for the various BMS sectors, the Planning Commission devised a Minimum Adequate Provision (MAP), which is calculated on the following basis:

> MAP = Actual expenditure on BMS in 1995-96 + ACA for the specific year + 15% of ACA as State share.

However, keeping in view the difficult financial resource position of Special Category States, the 15 per cent contribution by them has been waived.

5. The entire MAP for BMS is earmarked in the annual plan of the States and it can be spent only on permissible items under specific sectors. However, the States have flexibility in allocations between the sectors as per their own needs and priorities. Any shortfall in the actual expenditure against earmarked outlays, attracts proportionate curtailment of Central assistance in the following year.

6. Since 1996-97 in each year ACA has been provided for BMS in the Central Budget. While in 1996-97, the allocation w as Rs.2244 crore, in 1997-98 it was Rs.3100 crore, which was further increased to Rs.3400 crore in 1998-99, and to Rs.3700 crore in 1999-2000. The Statewise outlays of ACA for BMS are given in Annexure-1. The MAP calculated for each State for 1999-2000 is given in Annexure-2. These estimates provide a broad idea of allocations that have been made in the plans of the States/UTs for basic minimum services. While Rs.3700 crore are in the form of ACA, the States/UTs spend approximately Rs.12,000 crore from within their own Plans. Annexure-3 gives statewise outlays provided for BMS in the Annual Plan for 1999-2000. In addition, the BMS sectors are also served by several Centrally Sponsored Schemes and it is estimated that about Rs.8,000 crore are annually allocated for these areas.

7. While comprehensive monitoring formats of assessing both the financial and physical progress under BMS have been made and circulated to the State Governments, the information received is far from satisfactory. While the utilisation against allocations is forthcoming, the problem is with the reporting of the physical achievements. This can be attributable to the fact that there is no one place where the monitoring of the BMS takes place. There is considerable overlap between provisions from the three sources and there is likelihood of substitution of funds from one head to the other. To illustrate in the case of shelter there is a CSS called Indira Awas Yojana (IAY) wherein free cost housing is given to families living below poverty line. The Centre contributes 75% and the States are required to provide 25%. It is quite likely that the ACA for BMS is used for providing the State's matching share. In this case the ACA will not contribute to the creation of additional new houses. Therefore, the physical achievement cannot

be correctly assessed and it would not correspond to the total financial provisions provided under three separate heads.

8. In order that the resources provided by the Centre as ACA for BMS are not frittered away, in each sector specific items were identified for eligibility. For instance, under primary health care, construction of sub-centres, primary health centres and community health centres, salaries of Auxiliary Nurse Midwife (ANMs), health workers, doctors etc. and equipments and medicines were covered. Similarly, under elementary education, construction of school buildings, supply of uniform and text books, salaries of teachers included in the plan, equipment and furniture, assistance to non-government schools and local bodies were permissible.

9. The discussion on each of the specific sectors is covered in the concerned chapters. However, it may be noted that given the enormous inter-state differences in levels of achievements, the Planning Commission devised a formula based on indicators reflecting infrastructural gaps for distribution of ACA among non-special category States. In respect of special category States, the allocations were based on the devolution of normal Central assistance and not on actual gaps in infrastructure. The ACA is in the form of 70% loan and 30% grant for the non-special category States, while for special category States, it in the form of 90% grant and 10% loan. In the first three years of the Ninth Plan, the ACA for BMS, added to the funds of States/UTs for these services, and were fully utilised.

10. In order to achieve the objective of sustainable human development at the village level, it has been decided to introduce a new initiative in the form of Pradhan Mantri's Gramodaya Yojana (PMGY). This would focus on the creation of social and economic infrastructure in five critical areas with the objective of improving the quality of life of our people specially in rural areas. Programmes related to health, education, drinking water, housing and rural roads would be undertaken within this programme. This scheme would be introduced from 2000-2001. ACA would be provided to the States and UTs for this purpose. This would replace the ACA being provided for BMS, thus far.

11. The PMGY would have two components: Programme for rural connectivity with 50% allocation, and other programmes of primary health, primary education, shelter, drinking water and nutrition with the remaining 50% allocation. In the year 2000-2001, Rs.5000 crore have been provided for this. While the scheme for rural roads would be implemented by the Department of Rural Development, the modalities for implementation of other programmes are being worked out. It is envisaged that the concerned administrative Departments at the Centre, namely, Department of Family Welfare, Department of Elementary Education and Literacy, Department of Rural Development, Department of Drinking Water supply and Department of Women and Child Development would oversee the implementation of the schemes under their purview. In fact, it is proposed that the Central Ministry/ Department would monitor their programmes of PMGY, while the overall coordination would be the responsibility of the Planning Commission.

Annexure I

Allocation of Additional Central Assistance for the Basic Minimum Services Programme to the States/UT's for the Year 1996-97, 1997-98, 1998-99 and 1999-2000

(Rs in Crore)

A	None Spl.States 1	ACA 1996-97 2	ACA 1997-98 3	ACA 1998-99 4	ACA 1999-2000 5
1	Andhra Pradesh	140.52	170.59	179.61	196.34
2	Bihar	225.67	364.07	383.32	419.04
3.	Goa	1.55	1.55	3.63	3.63
4	Gujarat	52.58	72.58	76.42	113.54
5	Haryana	19.08	19.08	40.09	26.96
6	Karnataka	59.40	99.42	104.68	114.43
7	Kerala	69.64	78.69	102.85	110.57
8	Madhya Pradesh	144.09	210.00	236.10	265.34
9	Maharashtra	96.78	132.23	159.22	152.19
10	Orissa	79.26	147.45	164.25	190.31
11	Punjab	25.59	35.59	36.94	40.37
12	Rajasthan	87.63	132.98	140.01	153.05
13	Tamil Nadu	82.36	119.80	141.13	137.88
14	Utter Pradesh	317.33	456.84	500.99	575.81
15	W.Bengal	150.00	203.57	214.33	234.30
B	**Spl. Category States**				
1	Arunachal Pradesh	62.18	62.18	90.47	71.57
2	Assam	154.14	163.80	172.46	188.53
3	Himachal Pradesh	64.41	64.41	113.45	109.14
4	Jammu & Kasmir	156.52	156.52	164.80	180.15
5	Manipur	44.30	44.30	64.30	72.64
6	Meghalaya	37.03	37.03	38.99	63.62
7	Mizoram	36.87	36.87	49.96	51.43
8	Nagaland	37.53	37.53	49.51	67.19
9	Sikkim	25.65	25.65	47.25	49.76
10	Tripura	46.37	46.37	55.37	59.92
C	**Union Territories**				
1	NCT of Delhi	9.00	14.20	14.95	16.34
2	Pondicherry	3.90	6.13	7.45	7.06
3	A & N Island	8.00	13.19	17.17	15.19
4	Chandigarh	3.72	5.87	6.18	6.76
5	Dadra & Nagar Haveli	1.08	1.71	1.80	1.97
6	Lakshadweep	1.44	2.27	2.39	2.62
7	Daman & Diu	0.86	1.36	1.43	1.57
	Total	**2244.48**	**2963.83**	**3381.50**	**3699.22**

Annexure-II

Minimum Adequate Provision (MAP) for BMS in 1999-2000

(Rs. In lakh)

Sl. No.	State	Actual Expend-ture 1995-96	Revised Estimates (RE) 1995-96	Additional Central Assistance (ACA) 1999-2000	From unalloca-ted ACA funds	Final Allo-cation of ACA for BMS 1999-2000	15% of ACA (State Share)	Minimum Adequate Provision (MAP) 1999-2000 [(3or4)+7+8]
1	2	3	4	5	6	7	8	9
NON SPECIAL CATEGORY STATE								
1	A.P		19397.00	19634.00		19634.00	2945.10	41976.10
2	Bihar	20117.43		41904.00		41904.00	6285.60	68307.03
3	Goa		4055.50	178.00	185.00	363.00	54.45	4472.95
4	Gujarat	24250.71		8354.00	3000.00	11354.00	1703.10	37307.81
5	Haryana	6598.82		2196.00	500.00	2696.00	404.40	9699.22
6	Karnataka	55600.00		11443.00		11443.00	1716.45	68759.45
7	Kerala	6815.00		9057.00	2000.00	11057.00	1658.55	19530.00
8	M.P	28362.00		24170.00	2364.00	26534.00	3980.10	58876.10
9	Maharashtra	64957.00		15219.00		15219.00	2282.85	82458.85
10	Orissa	24945.90		16971.00	2060.00	19031.00	2854.65	46831.55
11	Punjab	4758.00		2945.00	1092.00	4037.00	605.55	9400.55
12	Rajasthan	54854.09		15305.00		15305.00	2295.75	72454.84
13	Tamil Nadu	18838.00		13788.00		13788.00	2068.20	34694.20
14	U.P	91719.00		52581.00	5000.00	57581.00	8637.15	157937.15
15	W.B	8907.95		23430.00		23430.00	3514.50	35852.45
	Sub Total	**410723.90**	**23452.50**	**257175.00**	**16201.00**	**273376.00**	**41006.40**	**748558.25**
SPECIAL CATEGORY STATE								
1	Arunachal	6917.93		7157.00		7157.00		14074.93
2	Assm	26344.48	21564.00	18853.00		18853.00		40417.00
3	H.P		14814.31	7414.00	3500.00	10914.00		25728.00
4	J & K		17011.00	18015.00		18015.00		35026.00
5	Manipur	3952.54		5098.00	2166.00	7264.00		11216.54
6	Meghalaya	5721.69		4262.00	2100.00	6362.00		12083.69
7	Mizoram	4743.89		4243.00	900.00	5143.00		9886.89
8	Nagaland	2544.99		4319.00	2400.00	6719.00		9263.99
9	Sikkim		5046.40	2952.00	2024.00	4976.00		8417.40
10	Tripura		6303.85	5337.00	655.00	5992.00		12295.85
	Sub total	**50225.52**	**64739.56**	**77650.0**	**13745.00**	**91395.00**		**178410.29**
UNION TERRITORIES								
1	NCT of Delhi	8797.00		1634.00		1634.00		10431.00
2	Pondicherry	2182.31		705.00		705.00		2887.31
3	A&N Islands	3492.00		1518.00		1518.00		5010.00
4	Chandigarh	1144.17		675.00		675.00		1819.17
5	D.N.Hawali	792.82		196.00		196.00		988.82
6	Lakshwadeep	384.54		261.00		261.00		645.54
7	Daman&Diu	444.81		156.00		156.00		600.81
	Sub Total	**17237.65**	**0.00**	**5145.00**	**0.00**	**5145.00**	**0.00**	**22382.65**
	Grand Total	**478187.07**	**88192.06**	**339970.00**	**29946.00**	**369916.00**	**41006.40**	**949351.19**

Annexure-III

Annual Plan for 1999-2000. Agreed outlay for Basic Minimum Service (BMS)

(Rs. In lakh)

Sl. No.	States/UTs	Primary education	Health service	Drinking water	Housing	Rural connectivity	Nutrition	PDS	Others*	Total
A. Non Special Category States										
1	Andhra Pradesh	5072.32	1197.00	7460.68	10288.00	15305.00	2653.00	0.00	0.00	41976.00
2	Bihar	15060.83	10800.00	5100.00	55604.00	17000.00	1400.00	0.00	0.00	104964.83
3	Goa	203.30	106.55	3287.09	210.00	616.06	50.00	0.00	0.00	4473.00
4	Gujarat	17385.95	11342.82	23920.00	13012.00	1000.00	9000.00	45.00	0.00	75705.77
5	Haryana	3115.00	2700.00	5400.00	0.00	260.00	525.00	0.00	0.00	12000.00
6	Karnataka	22532.20	17200.25	42507.79	11900.98	4472.85	3850.33	0.00	0.00	102464.40
7	Kerala	375.00	607.00	6800.00	500.00	0.00	30.00	7.00	13000.00	21319.00
8	Madhya Pradesh	375773.37	4056.69	5838.22	3067.29	6126.43	4960.00	101.00	0.00	399923.00
9	Maharashtra	10182.62	6856.93	100212.35	10670.91	0.00	7458.28	0.00	0.00	135381.09
10	Orissa	7329.82	4127.72	9859.26	610.00	6551.83	6474.38	95.52	13058.00	48106.53
11	Punjab	9376.07	2458.00	5400.00	5200.00	0.00	500.00	0.00	0.00	22934.07
12	Rajasthan	25425.00	9656.00	23970.00	0.00	27500.00	0.00	0.00	0.00	86551.00
13	Tamil Nadu	4594 39	2442.99	7333.33	900.00	6458.52	9896.44	0.00	4989.71	36615.38
14	Uttar Pradesh	45576.00	15413.57	53215.00	11195.00	108102.00	4500.00	10.00	0.00	238011.57
15	West Bengal	7138.00	3246.00	11486.00	2831.00	8130.00	4100.00	0.00	0.00	36931.00
B. Spl. Category										
1	Arunachal Pradesh	5072.32	1197.00	7460.68	10288.00	15305.00	2653.00	0.00	0.00	41976.00
2	Assam	22217.00	4534 00	7631 00	1623 00	4200.00	813.00	120.00	0.00	41138.00
3	Himachal Pradesh	7333.23	3319.83	5092.70	720.35	9274.34	940.00	544.05	0.00	27224.50
4	Jammu & Kashmir	8351.23	6312.79	9975.28	65.00	7235.34	825.00	50.00	3698.02	36512.66
5	Manipur	1077.00	550.00	3400.00	850.00	4250.00	230.00	75.00	190.00	10622.00
6	Meghalaya	2800.00	2329.00	2650.00	300.00	3340.00	260.00	50.00	0.00	11729.00
7	Mizoram	2028.00	1830 00	2309.00	542.00	2408.00	250.00	120.00	0 00	9487.00
8	Nagaland	958.00	1139.00	1975.00	0.00	1500.00	183.00	134.00	3375.00	9264.00
9	Sikkim	2587.00	540.00	1583.00	1900.00	1568.00	195.00	45.00	0.00	8418.00
10	Tripura	5893.00	630.00	2520.00	1150.00	1400.00	558.00	45.00	0.00	12296.00
C. Union Territories										
1	NCT of Delhi	8304.00	5525.00	19045.00	130.00	0.00	3210.00	320.00	0.00	36534.00
2	Pondicherry	1180.22	453.00	1135.00	480.00	750.00	623.00	190.00	38.00	4849.22
3	A & N Island	1800.00	956.00	1745.00	101.00	1650.00	50.00	220.00	0.00	6522.00
4	Chandigarh	248.12	250.50	1315.00	30.00	60.00	5.00	18.00	200.00	2126.62
5	Dadra & Nagar Haveli	435.38	121.45	356.00	27.00	132.00	47.00	7.00	0.00	1125.83
6	Lakshadweep	137.76	141.09	174.76	0.00	135.00	30.00	51.24	0.00	669.85
7	Daman & Diu	120.20	128.00	277.00	2.40	210.00	28.00	3.00	0.00	768.60
	Total	611753.33	117250.18	368189.14	144567 93	254940.37	63217.43	1937.81	51548.73	1613404.92

* Under column others, outlay on economic services/welfare of SC, ST & OBC/JRY/Spl. Area programmes/assistance to local bodies etc. on BMS componets have been indicated.

CHAPTER 8

PUBLIC DISTRIBUTION SYSTEM & FOOD SECURITY

With a network of more than 400,000 Fair Price Shops (FPS), the Public Distribution System (PDS) in India is perhaps the largest distribution machinery of its type in the world. PDS is said to distribute each year commodities worth more than Rs 15,000 crore to about 16 crore families. This huge network can play a more meaningful role if only the system is able to translate into micro level a macro level self-sufficiency by ensuring availability of food grains for the poor households.

2. Access of the poor to food is a priority objective for two reasons: Firstly, though the growth of food grain production in 1989-99 was lower than the increase in population during the same decade, procurement of grains was indeed going up, which is suggestive of a decline in people's consumption or in the purchasing power of the poor. This may have happened because of structural imbalances in the economy: rising capital intensity, lack of land reforms, failure of poverty alleviation programmes, growing disparity between towns and villages, and the like. To this may be added production problems in less endowed regions, which have led to a dangerous situation of huge pile-up inside Food Corporation of India's (FCI) godowns and widespread incidence of hunger outside. It is just as important to correct these policy imbalances as to increase food production. Secondly, if consumption of the poor does not increase there would be serious demand constraints on agriculture and could make the growth target of 4.5% per annum unachievable.

3. Huge as it may seem on paper, all is not well with the Public Distribution System. A large subsidy each year keeps the system going (see Table below). A close look at the Table would show that the level of food subsidies as a proportion of total Government expenditure has gone up from about 2.5 percent or below at the beginning of the 1990s to about 3 percent towards the end of the decade. One of the issues in the PDS operation has been how to contain the food subsidy within reasonable levels.

Table-1: Food Subsidy of the Central Government

(Rs.Crore)

Year	Amount	% of Total (Govt Expenditure)
1990-91	2450	2.33
1991-92	2850	2.53
1992-93	2785	2.27
1993-94	5537	3.90
1994-95	4509	2.80
1995-96	4960	2.78
1996-97	5166	2.46
1997-98	7500	3.23
1998-99	8700	3.11
1999-00	9200	3.03
2000-01	8100	2.39

Implementation of TPDS

4. As it stood earlier, PDS was criticised on a wide front: its failure to serve the population Below Poverty Line (BPL), for its perceived urban bias, negligible coverage in States with a high density of rural poor and lack of transparent and accountable arrangements for delivery. Given that backdrop, the Government acted to streamline PDS during the Ninth Five Year Plan period by issuing special cards to BPL families and selling to them foodgrains through PDS outlets at specially subsidised prices (with effect from June, 1997).

5. Under the new Targeted Public Distribution System (TPDS) each poor family is entitled to 10 kilograms of food grains per month (20 kg wef April 2000) at specially subsidised prices. This is likely to benefit about six crore poor families, to whom a quantity of about 72 lakh tonnes of food grains per year is earmarked. The identification of the beneficiaries is done by the States, based on state-wise poverty estimates of the Planning Commission. The thrust is to limit the benefit to the truly poor and vulnerable sections: landless agricultural labourers, marginal farmers, rural artisans/craftsmen, potters, tappers, weavers, blacksmiths, and carpenters in the rural areas; similarly those covered by TPDS in urban areas are slum dwellers and people earning livelihood on a daily basis in the informal sector like the porters and rickshaw pullers and hand cart pullers, fruit and flower sellers on the pavements, etc.

6. The allocation of food grains to States is based on consumption in the past, that is, the average annual off-take during 1986-87 to 1995-96. Food grains out of this average-lifting — in excess of the BPL needs at the rate of 10 kg per family per month – are provided to the States as 'transitory allocation' and a quantity of 103 lakh tonnes is earmarked for this annually. This transitory allocation is intended to continue the benefit of subsidised grains to population above poverty line (APL) to whom an abrupt withdrawal of PDS facility was not considered desirable. The `transitory' allocation is issued at prices which are subsidised but higher than prices fixed for the BPL quota.

7. Following the TPDS introduction, representations were received from several States / Union Territories (UTs) that the new allocation was much lower than the earlier level of allocations particularly during 1996-97. As a result of this and keeping in view the guidelines for implementation of TPDS, additional allocations — over and above TPDS quota — were made to States /UTs at

economic cost from June, 1997 to November, 1997. At a Conference in September 1997, Chief Ministers reviewed the TPDS implementation and the states demanded that the additional allocations be made at APL rates. Accordingly, the additional quantiities are being allocated at APL rates from December 1997 subject to availability of food grains in the Central pool and constraints of food subsidy. The BPL/APL rates (Rs/kg) have been as follows during the Ninth Plan:

Table – 2
Issue Price of Food Grains (Rs.)

Category	Date	Wheat	Rice (common)
BPL	1.6.1997	2.5	3.5
-do-	1.4.2000	4.5	5.9
APL	1.6.1997	4.5	5.5
-do-	1.4.2000	9.0	11.35

Diversion of PDS Commodities:

8. In response to complaints, a study was conducted by the Tata Economic Consultancy Services to know how much of PDS supplies were diverted from the system. At the national level, it was found, there was a diversion of 36% of wheat supplies, 31% of rice and 23% sugar. Statistically at 90%-confidence level, the actual diversion of wheat would fall in the range of 32-40%, rice in 27-35% and sugar 20-26%. Table-2 shows the extent of diversion in various States and Union Tterritories. The Table shows that the diversion is more in Northern, Eastern and North Eastern regions; it is comparatively less in Southern and Western regions. A high 64% diversion of rice is estimated in Bihar and Assam. In the case of wheat the diversion is an estimated 100% in Nagaland and 69% in Punjab.

9. It is significant to note that the diversion is estimated less in the case of sugar as compared to rice and wheat. The PDS is better organized in towns where sugar is consumed while its infrastructure is weak in rural areas, especially in poorer Northern, Eastern and North Eastern States. A study in Bihar has reported the following Box.

10. Problems of lack of infrastructure and shortage of funds with Government agencies are not unique to Bihar; most States suffer such handicaps except for a few in the West and the South. The Centre should ensure adequate infrastructural capacities in districts and at block levels to plug leakage of scarce resources which reportedly helps only contractors and corrupt government staff and keeps the poor and the needy away. One study claimed that each fair price dealer has to "maintain" on an average nine government functionaries. It is significant that the allocation to poorer states like UP, Bihar and Assam got more than doubled after the switch-over to TPDS, but the offtake by the States was poor and by actual BPL beneficiaries even poorer. The scheme has not made any impact on nutrition levels in those States.

11. A detailed study on TPDS was published in a paper 'Food Security and the Targeted Public Distribution System in Uttar Pradesh;' it was presented by Ravi Srivastava in Hyderabad in March 2000. The study was carried out among 2250 households across 120 villages in 25 districts in four economic regions. It showed that savings through TPDS in UP accounts for only 1.3 percent and 1.1 percent of the cereal budget of households in two lowest units. The scheme is seen hardly to help the poor. This, it was stated, is because UP government does not lift its quota due to bad administrative arrangements and a substantial portion of whatever is lifted is often sold in the black market. Pricing provides a hefty incentive for an estimated 41 per cent leakage. Imperfect targeting has led to exclusion of eligible households. The basis for selecting beneficiaries lacks transparency and is too complicated for local officials to administer. There is a lack of political commitment to the TPDS, it was stated, as well as administrative cynicism while the PDS shopkeeper does not have adequate incentive. Multiplicity of agencies, poor co-ordination and low administrative accountability have combined to cripple the delivery machinery. Greater local supervision and a clear enunciation of entitlements could help reduce the extent of leakage.

12. Other problems associated with the scheme are:

- The poor do not have cash to buy 20 kg at a time, and

Box 1
DELIVERY SYSTEM FOR PDS IN BIHAR

- Dealership and even membership of vigilance committees are seen as positions where money can be made
- The procedure to appoint them is highly politicised, and mostly clients of MLAs are appointed
- Sub-district infrastructure to handle food grains is poor; Ranchi had only 11 godowns for 20 blocks
- The Civil Supplies Corporation has no working capital to buy from Food Corporation of India; vans are in poor condition or have no money for petrol, staff does not receive salaries for months
- On the whole, only Government staff, agents and retailers benefit from the scheme

Table-3: State and National Level Diversion

Name of State/UT	Estimated Diversion (%) Wheat	Rice	Sugar
NORTHERN REGION			
1. Delhi	53	53	25
2. Haryana	53	44	28
3. Himachal Pradesh	47	18	8
4. Jammu & Kashmir	28	29	28
5. Punjab	69	40	6
6. Uttar Pradesh	46	49	36
WESTERN REGION			
1. Goa	23	28	6
2. Gujarat	23	21	18
3. Maharashtra	26	30	22
4. Madhya Pradesh	20	24	32
5. Rajasthan	31	36	17
SOUTHERN REGION			
1. Andhra Pradesh	15	19	16
2. Karnataka	30	18	19
3. Kerala	28	23	25
4. Tamil Nadu	24	33	28
EASTERN REGION			
1. Bihar	44	64	47
2. Orissa	39	54	28
3. Sikkim	52	21	41
4. West Bengal	40	34	24
NORTH EASTERN REGION			
1. Arunachal Pradesh	47	56	23
2. Assam	61	64	52
3. Manipur	48	19	37
4. Meghalaya	62	54	39
5. Mizoram	63	54	41
6. Nagaland	100	46	24
7. Tripura	27	33	13
UNION TERRITORIES			
1. Chandigarh	24	12	35
2. Dadra & Nagar Haveli	18	7	26
3. Daman& Diu	40	38	13
4. Pondicherry	40	20	39
NATIONAL LEVEL	36	31	23

often they are not permitted to buy in instalments.

- Low quality of foodgrains – A World Bank report (June 2000) states that half of FCI's grain stocks is at least two years' old, 30% between 2 to 4 years old, and some grain as old as 16 years.
- Weak monitoring, lack of transparency and inadequate accountability of officials implementing the scheme
- Price charged exceeds the official price by 10% to 14%.

13. The Tata report also examines the effectiveness of laws like Essential Commodities Act, 1995 and Prevention of Black-Marketing and Maintenance of Essential Commodities Act, 1980 in checking diversion. The report has found no correlation between the frequency of use of Enforcement Acts and extent of diversion in particular states. In the Northern Region, Uttar Pradesh has more diversion of rice and sugar (compared to Punjab) despite a higher number of raids and convictions. In the West, similarly, Gujarat does not appear to be very much better managed (than Madhya Pradesh and Rajasthan) despite reporting the highest number of detentions in the country under these Acts.

Recommendations for Streamlining TPDS:

14. To make implementation of TPDS more effective, following suggestions have been made:

a. Items other than rice and wheat need to be excluded from the purview of TPDS. Attempts to include more commodities under food subsidy cover should be resisted.

b. Sugar supply through PDS draws well-to-do families to the system.

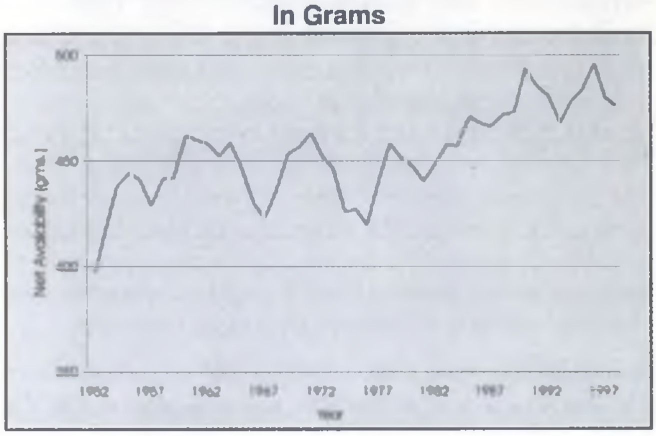
c. Coarse grains are basic commodities purchased by the poor . These grains in any case are available to the poor at low prices. There seems no additional need to supply them through PDS and bring them under the cover of food subsidy.

d. Kerosene oil is also a commodity supplied through PDS and is intended for the poor. But there occurs large scale illicit diversion of this item and benefits meant for the poor are cornered by others. Subsidised kerosene is used for adulteration with diesel. Subsidy on kerosene should be gradually phased out and alternate avenues of marketing it needs to be explored.

e. The coverage of TPDS and food subsidy should be restricted to the population below poverty line. For others who have the purchasing power, it would do merely to ensure availability of grains at stable price in the market — no need for food subsidy to this population.

f. Ration cards have tended to be used as ID cards to establish people's identity. Many get ration cards issued only for this purpose.

Per Capita Daily Availability Of Cereals And Pulses In Grams



8

FOOD SECURITY

15. Over the past half a century, the per capita net availability of cereals and pulses per day has shown significant improvement in the country. A three-year moving average figures of per capita net availability of cereals and pulses show the following: The average for 1951-53 was 397.3 grams per day and this went up to 475.8 grams during the period 1997-99 . This signifies a growth rate of 0.26 per cent per annum during 1951-99 period. In 1980s, the growth rate in availability per capita was 1.20 per cent per annum which has has come down to – 0.28 per cent per annum during the 1990s.

16. The level of grain stocks with Food Corporation of India has shot up. In June, 2000 the Central pool had stocks of rice totalling 14.49 million tonnes and of wheat 27.76 million tonnes. For the country, the total food grain stock during June, 2000 stood at was 42.25 million tonnes against a prescribed level of 24.30 million tonnes. Storage costs keep on piling. The problem is not one of scarcity but it has to do with how to manage surplus so that farmers are not adversely affected by decline in prices. In this connection, the Committee of Secretaries has directed the Department of Food and Civil Supplies to set up a panel of eminent experts to make a study on 'foodgrain management in India and related issues;' the study is to include the role of FCI.

8

17. In addition to TPDS, two other schemes – Integrated Child Development Scheme (ICDS) and mid-day meal programme of the Central Government — aim to alleviate household mal-nutrition. The schemes cost more than Rs.13,400 crore in a year, of which roughly Rs.400 crore is external contribution. However, operational inefficiencies limit the impact of the schemes and more than half of the children 1-5 years old in rural areas are under-nourished, with girl children suffering even more severe malnutrition.

18. While provision of food subsidy is an important element of the food security system in India, an equally important role is played by food procurement and buffer stock operations. The agricultural production is subject to climatic swings and market forces and there is likely to be wide fluctuations in food grain prices. To bring about price stability, it is necessary to build and maintain an adequate level of buffer stock. For now, the challenge however is to reduce the present stock level to roughly half without detriment to farmers. This would need several legal and policy changes , which could enhance the role of private sector and make markets less distorted.

Changes in law –

19. A key legislation, Essential Commodities Act (E C Act), was enacted during a time when the country was faced with severe food shortages and scarcity. Restrictions under the Act, which were relevant 30 years back, could hamper productive/ commercial activity in the market in an era of self-sufficiency/surplus in food grain output and in other primary commodities.

20. There are several licences and permits to be obtained from the authorities under the E C Act. Apart from this a large number of registers are to be maintained and returns filed periodically. Inspections are carried out to ensure compliance. All these have pushed operational costs to traders. Some examples of such controls are given below:

21. Gujarat limits stock-holding in pulses to 25 quintals for licence holders and to just nine quintals for others. The Government of Maharashtra has set a maximum storage period of 15 days for wholesale dealers. In Kerala, stocking of sugar is limited to 250 bags. In Andhra Pradesh, the stockholding in pulses and oils can be up to one month's stock of raw material and half a month's stock of finished goods. In Uttar Pradesh, wholesale dealers have a stockholding limit of 1,000 quintals. In Punjab, a limit of 250 quintals is applied on rice stored while West Bengal has similar storage limits for rice (750 quintals) and wheat (400 quintals) for wholesale dealers. In Assam the wholesale dealer can store up to 10 quintals without licence.

22. Some Orders/Notifications under the E C Act restrict movement of goods from surplus States to deficit States. State Governments issue Movement Control Orders to enforce the restrictions. The Government may specify that transportation of certain commodities can be undertaken only after obtaining a general permit or a special transport permit. Most of these orders and notifications come into force at harvesting time and are published in the official gazette, beyond the ordinary reach of the public.

23. In Andhra Pradesh and Tamil Nadu, farmers are not allowed to do direct sales outside the State. Permits are required for such sales. In Hyderabad, a permit from Managing Director of the Civil Supplies Corporation is required while in other cases in A.P the District Collector or Civil Supplies Officer of the district issues the permit. . In Tanjore district of Tamil Nadu, the State Government imposes restriction on movement of paddy out of the district. Maharashtra, similarly, controls movement of cotton.

24. Such inter-state movement restrictions tend to depress prices and are seen as 'anti-farmer,' especially when Government and agencies like Food Corporation of India do not have adequate storage capacity available. Free movement will benefit consumers in deficit regions such as Kerala, besides securing a good price to farmers in producing States without burdening the exchequer via subsidy route.

25. Orders like Cold Storage and Fruit Products Orders specify storage rent to be determined by the authorities and the licensee is liable to punishment if he does not rent out space to Government agencies or cooperatives.

26. Controls/restrictions under E C Act are seen as a disincentive to production and distribution of essential commodities. Traders reportedly operate at high margins and share a part of these with inspectors. With the increased production in essential commodities, it is recommended that all agricultural produce and its products be deleted from the definition of "essential commodities" under Section 2(a) of E C Act and all Control Orders relating to or affecting agricultural produce/products be rescinded. Action in this direction may be initiated for wheat and sugar to begin with, it is suggested. Also, State intervention may now be directed to make the markets friendly to the poor.

Other policy changes –

27. In new initiatives, several State Governments have initiated their own food procurement operations. More such initiatives are likely in the future. It is conceivable that some of Central agency FCI's godowns (with staff) are transferred to the State Governments. In this context the task of maintaining buffer stocks will become a responsibility of Central and State Governments. There is also a possibility that FCI play a more active role in undertaking open market operations within a prescribed price band. It can release stocks in the open market when shortages are prevalent and prices are high. The FCI could also become an active player in the international food grains market.

28. Most storage godowns with FCI are small-scale, low -quality structures; sometimes, grains are also stored in the open (known as covered and plinth storage —CAP) leading to heavy storage losses. On other issues, the present extraction rates for wheat and rice are about 10 % to 30 % below the international standards due to reservation of agro-processing units for small sector who uses inefficient technologies. Private transporters get a low priority on railway movement forcing them to rely on more expensive truck transport.

29. As regards the Minimum Support Price, there is a need strictly to adhere to what the Commission for Agricultural Costs and Prices recommends rather than fix procurement prices much in excess of estimated costs of production.

Recommendations:

- There is need to amend law to ban controls and restrictions on trade between States. There should be free movement of all kinds of commodities including agricultural produce.
- While it would be expedient to continue with support price for agricultural produce like wheat, paddy, cotton etc, the need to abolish or phase out levy or monopoly purchase should be considered. Levy acts as a tax on the processors which is then passed on to the producers. Government should buy rice for its public distribution system through an open tender system.
- Remove licensing controls on Roller Flour Mills and other food processing industry. De-reserve food processing units, especially rapeseed and groundnut processing units, from Small Scale Industry (SSI) list.
- Impose tariff on import of wheat and encourage roller flour mills to buy from the farmers.
- Even during 1999-2000 when food stocks were at its all-time peak, restrictions were imposed on export of rice. Export needs to be encouraged; broken rice could be imported for the TPDS.
- FCI should be allowed to intervene in the food grains market within a predetermined price band to moderate prices and facilitate management of surplus food stocks.
- Scrap Essential Commodities Act; or at least take wheat, rice and sugar out of its purview.
- Completely decontrol sugar and take it out of PDS.
- Limiting public distribution of essential items to targeted groups; abolishing PDS for APL while retaining TPDS.
- Lifting of the ban on Futures Trading of agricultural commodities. This will help in containing the wide fluctuations in commodity prices, besides cutting down the cost of marketing by hedging the risk.
- Abolish Milk and Milk Products Order (MMPO), which restricts private sector investment in milk processing.

Allotment/Offtake of Rice and Wheat (April, 1999 - March, 2000) In '000 tonnes

State	No. of BPL household (lakhs)	No. of APL household (lakhs)	Allotment		Offtake		Offtake of BPL foodgrains per BPL household per month
			BPL	Non-BPL	BPL	Non-BPL	
Andhra Pradesh	37.78	118.65	453	1988	455	1926	10.0
Assam	19.06	25.53	229	655	216	535	9.4
Bihar	85.90	73.39	1030	338	876	40	8.5
Gujarat	19.95	66.35	241	792	241	216	10.0
Haryana	7.33	23.70	88	69	51	2	5.8
Karnataka	28.75	64.43	345	975	343	682	9.9
Kerala	15.35	53.22	184	2013	221	1281	11.9
Madhya Pradesh	53.34	85.33	640	276	333	53	5.2
Maharashtra	60.45	114.88	726	1246	646	1104	8.9
Orissa	31.82	35.48	478	1112	704	321	18.4.
Punjab	4.30	35.02	51	21	7	1	1.4
Rajasthan	21.66	65.49	260	389	191	52	7.3
Tamil Nadu	45.79	91.86	549	1625	530	1440	9.6
Uttar Pradesh	95.48	171.99	1146	1122	581	119	5.1
West Bengal	46.59	96.74	549	1031	377	567	6.7
ALL INDIA	**596.20**	**1181.28**	**7206**	**17056**	**5969**	**9978**	**8.3**

CHAPTER 9

WATERSHED DEVELOPMENT: REHABILITATING DEGRADED LANDS & A MEANS OF SUSTAINABLE EMPLOYMENT

Area Under Degraded Lands

According to the nine-fold land classification, out of 304 million hectares of land in India for which records are available, roughly 40 million hectares are considered totally unfit for vegetation. It is either urban and under other non-agricultural uses such as roads and rivers, or is under permanent snow, rocks and deserts. The break-up of the remaining vegetation–fit 264 million hectares is as follows:-

	Million Hectares
1. Cultivated land	142
2. Forest land	67
3. Fallows/culturable wastes/pastures/ groves	55
4. Total area of culturable lands	264

2. The above land use classification, however, does not say anything about the extent of land degradation or loss in productivity over time caused by various natural and man-made factors. Not only are culturable wastes and pastures considered highly degraded – that is, producing biomass much below their potential – but even a substantial part of cultivated and forest lands has lost productivity due to inappropriate land use and over-exploitation. The National Commission on Agriculture estimated that 175 million hectare. of land was under some form of degradation or the other and was in need of attention. According to the Commission, all rainfed paddy lands in the country were subject to water and wind erosion; thus the 175 million hectare. included 85 million hectares of cultivated land as well. For the rest, there would be 35 m hectare. of degraded and barren forest lands and 55 m hectare of common and revenue lands.

3. One of the most critical aspects of information about non-forest wastelands pertains to ownership. There are three obvious categories: private, community and Government. In addition to uncultivated lands which were historically part of the farmers' holding, especially in ryotwari semi-arid areas, many poor families have been allotted lands under various programmes in the last 20 years and such lands may still be lying uncultivated. Figures from a few states given in the Table show that substantial culturable waste area has been privatised as a conscious policy outcome. Besides there are encroachments, mostly unrecorded.

Past Strategy

4. The two main categories of degraded lands by ownership - private and government – received different treatments in official programmes in the past. Whereas soil and moisture conservation measures were attempted by the Agriculture Departments on private lands, social forestry plantations were undertaken on government wastes by the Forest Departments of the state governments. These two programmes suffered from two common weaknesses: First, there was no integrated land management — the two programmes ran in isolation. Second, these were, till very recently, entirely departmental affairs with no participation from the people.

Allotment of Wastelands to the Poor

Name of the State	Area Distributed in 000 Hectares
Andhra Pradesh	1681
Assam	236
Bihar	390
Gujarat	552
Haryana	1
Himachal Pradesh	7
Karnataka	549
Kerala	183
Madhya Pradesh	68
Maharashtra	409
Orissa	290
Tamil Nadu	83
Uttar Pradesh	996
West Bengal	173
Rajasthan	37
Total (including others)	**5798**

5. The main thrust of the programmes on both private and government lands in the rainfed areas should have been on activities relating to soil conservation, land shaping, pasture development, vegetative bunding and water resources conservation – all on the basis of an entire compact micro-watershed (which would include both cultivated and uncultivated lands) rather than on pieces of wastelands scattered at different places. In the preparation of the watershed development plans, user groups and other people depending directly on the watershed should have been actively involved.

6. In 1994-95, a High Level Committee was set up to review the Drought Prone Area Programme (DPAP) and the Desert Development Programme (DDP) and suggest measures for improving these programmes. The Committee observed that the programmes had made very little impact on the ground, though in operation for over two decades, Consequently, the adverse impact of drought and the process of desertification could not be contained. The Committee recommended a holistic approach to

develop these areas through a process of micro watershed planning by preparing integrated land development plans. The plans would take into consideration the land capability, site condition and local needs of the people. The watershed development plans, it was suggested, should be prepared with the involvement of the people of the area and the plans should include programmes for soil and moisture conservation, water harvesting structures, afforestation/ horticulture/pasture development and upgradation of common property resources. A multi-disciplinary team of experts was to give technical assistance to Programme Implementing Agencies (PIAs) which could be a Line Department, a Non Governmental Organisation (NGO), Panchayat or a User Group. A well designed training programme would create awareness among functionaries. The Ministry of Rural Development issued guidelines to put Committee's recommendations into operation. .

7. According to estimates, up to the end of Eighth Plan about 16.5 million hectare rainfed/ degraded land was treated/developed. However, these achievements do not get reflected in Net Sown Area which has almost remained stagnant at around 142 million hectare. This indicates that either the treated lands were already under cultivation or an equal area was getting degraded or diverted for non-agriculture purposes. The possibility of bogus reporting can also not be ruled out. This requires deeper analysis.

The present arrangement

8. Watershed development programmes are implemented by different Departments at the Centre, and in the States. The Department of Agriculture and Cooperation implements the National Watershed Development Projects for Rainfed Areas (NWDPRA). The watershed approach has been adopted in other schemes like development of catchment areas of River Valley Projects and flood prone areas and control of shifting cultivation in North-Eastern Regions. The Ministry of Rural Development implements DPAP and DDP as also the Integrated Wasteland Development Programme (IWDP). Besides, several externally aided projects are also under implementation. The Ministry of Environment and Forest is implementing an Integrated Afforestation and Eco-development Scheme to promote the development of degraded forests. The Planning Commission also follows a similar approach to implementing special area development programmes like Western Ghats Development Programme (WGDP) and Hill Area Development. In addition to the above Centrally Sponsored Schemes several State Governments are also implementing schemes for soil and moisture conservation on watershed lines. Maharashtra, Karnataka, Andhra Pradesh and Madhya Pradesh have made great strides in this regard. Orissa and Rajasthan have also taken the initiative.

9. From the above, it is clear that the watershed approach has been accepted as a means to increase agricultural production while arresting ecological degradation in rainfed and resource poor areas. It would, at the same time, improve the level of living of the poor by providing more sustainable employment. Yet, the implementation of this programme by different departments/agencies has been based on different approaches. This has resulted in problems at the field level. The need for 'a Single National Initiative' has been felt for some time, and was also articulated in the 1999-2000 budget speech of the Union Finance Minister.

10. Under NWDPRA, the main objectives are (i) to conserve upgrade and utilise land and water resources in an integrated manner, (ii) to generate massive sustained employment after completion of the project, and (iii) to restore ecological balance. This project also involves peoples' participation. However, the norms and the guidelines for implementation of the programme under NWDPRA were quite different from those followed by the Ministry of Rural Development. More recently an attempt has been made to evolve a common approach to watershed development by introducing significant changes in NWDPRA. A participatory approach for empowerment of the community lies at the center of the new strategy.

11. From 1999-2000 a Watershed Development Fund (WDF) has been created and National Bank for Agriculture and Rural Development (NABARD) has been entrusted with the responsibility of covering 100 districts within 3 years under this programme. Initially 50 districts in 6 States, namely, Andhra Pradesh, Maharastra, Gujarat, Madhya Pradesh, Orissa and Uttar Pradesh will be covered. NABARD would give funds in the shape of loans to States to help sustainable models of watersheds for replication. It would begin with the replication of the Maharashtra Indo-German watershed model on a pilot basis. One-third of the watershed development fund would be utilised for promotion, awareness and capacity-building of the watershed community. Credit support would be given to develop self-help groups. NABARD would adopt the common guidelines already framed by Department of Agriculture in order to ensure a certain degree of uniformity in the implementation of watershed projects.

12. Critical in the development of watersheds is the import of appropriate technologies. Given socio-economic and agro-ecological variations in different regions, area-specific appropriate technologies become all the more a vital need. Various research organisations under the aegis of Indian Council for Agricultural Research (ICAR), Krishi Vigyan Kendras, State Agricultural Universities, NGOs and other professionals would need to be drawn into the development of new technologies to increase agricultural

output in rainfed areas. Development of infrastructure such as irrigation, roads, markets, electricity, etc. is also an important pre-requisite for sustainable agricultural growth in regions which hitherto lag behind.

13. Since the adoption of common guidelines in 1995-96 based on Hanumantha Rao Committee's recommendation the physical achievement under area development programmes is as under:

	No. of Projects	Area in Lakh Hectares
IWDP	247	15.98
DPAP	6515	30.00
DDP	2202	11.00

Impact & Findings From Evaluation Studies

14. Although the Ministries of Agriculture and Rural Development have implemented watershed projects for more than a decade, evaluation reports have shown that the projects cannot succeed without full participation of beneficiaries and attention to issues of social organisation. This is because success depends on consensus among a large number of users. Also, collective capability is required for management of common and new structures created during the project. Then, costs and benefits of watershed interventions are location-specific and unevenly distributed among the people affected. Most projects have failed to generate sustainability because of the failure of government agencies to involve the people. On the whole, villages with projects operated by non-government agencies or in collaboration between NGOs and government agencies performed significantly better (see boxes) than those that have purely government projects. Most government watershed development investments have yielded disappointing results given the vast resources allocated to date.

15. DPAP was recently studied by the Comptroller and Auditor General (CAG). Their findings are summarized in the box.

CAG Report on DPAP, 1999

- Rs 2,195 crores spent on DPAP alone
- Drought prone area increased from 55.3 m ha in 1973 to 74.6 m ha in 1995
- Insufficient evaluation of the quality of works, even run-offs not measured
- Survival rate of plantations very low
- Core sector activities very poor in Bihar, Karnataka, Maharashtra, MP and Rajasthan

16. A major study was done for ICAR in 1998 (reported in Farrington-edited Participatory Watershed Development, OUP, 1999) in 70 villages of Maharashtra and Andhra Pradesh, covering several watershed programmes. The survey revealed that the increase in agricultural production lasted no more than two years. Structures were abandoned because of lack of maintenance and there was no mechanism for looking after common lands. Farmers were not convinced about the need to contribute; that would happen only when they make the decisions about what kind of measures are introduced on their plots. Often, in government projects, farmers do not have this choice and technological norms are too inflexible. The very fact that farmers are unwilling to contribute towards the cost of works shows that they have little faith in the effectiveness of the programme.

17. The study also compared achievements by several watershed programmes, such as NWDPRA (Ministry of Agriculture), AGY (Adarsh Gram Yojana – implemented through NGOs), IGWDP (an Indo-German project run by Maharashtra government in collaboration with NGOs) and DPAP (Ministry of RD). Except the villages where NGOs were active, all other programmes scored poorly.

18. Although guidelines of both the Ministries of Rural Development and Agriculture emphasize decentralization and participation, implementation of watershed projects has remained poor because of the following factors:-

- Little participation of local people. Field staff have no incentive to pursue participatory approaches;
- Insecurity about availability of funding at the grassroot level; there is no guarantee that funds would be released in time by the Government of India (GOI) or other funding agencies. Pressure to spend substantial resources by a fixed deadline;
- Limited time permitted for preparatory and group formation activities. Strict orientation to achieve physical targets leaves field staff little time to promote social organisation;
- Unclear criteria for selecting areas and villages or for withdrawing from a village;
- Limited human resource capabilities. Government staff have sometimes subcontracted all work related to participatory processes to NGOs without developing any internal capacity;
- There is no involvement of senior State Government officials and line agencies. Watershed development programmes require a comprehensive and integrated approach involving several line departments.

- In the present form, schemes are left to be planned and executed by district level officers with limited capability to do planning and write a good project. the quality of project preparation and of implementation suffers a great deal. Moreover, the quality of project preparation and implementation suffers once it is realised that senior officers from the division and State capital take no interest in such schemes and their interest is limited to monitoring of financial expenditure alone.
- There is little impact assessment or evaluation of physical progress after the scheme runs for a couple of years. It is taken for granted that once money has been spent, physical progress automatically results. It is quite likely that soil conservation structures may not last for more than a few years, or plantation may not survive.
- Horizontal linkages are very weak between various line agencies at the district level. Thus, although watershed development may require integration of soil conservation techniques with plantation, there is little likelihood of effective coordination between the District Soil Conservation Officer and the District Forest Officer. The Indian Administration tends to look up to the seniors rather than establish linkages with peers in other departments.
- There is no arrangement for handing over structures and maintenance of plantation after a project is completed. That impairs sustainability of projects.
- Watershed Development programmes are being implemented by several Departments of Government of India — often with different guidelines. This causes confusion and gives an impression to the States that there is no coordination between Central departments. Even where the approach and guidelines are common, the sanction of funds is done by different departments and each does separate monitoring.

19. For watershed projects to be sustainable, community managed systems are needed and they can succeed only with farmers' contribution and their commitment in terms of time and resources. Equitable distribution of water amongst the families has been a major factors in the success of Sukho Majari (Haryana) and Relegaon Sidhi (Maharashtra) Projects.

20. Common guidelines prescribe that those who benefit from works on private land should contribute 10% of the total cost and 5% for works on common lands but in practice it has been difficult to collect these charges in full or the recovery is shown on paper but adjusted by the contractor in his bill. For sustainability, it is important that the farmers' contribution remains a necessary commitment before the start of a project; that would ensure a sense of ownership, lead to better quality and transparency and assured money for maintenance. It may be pointed out here that Myrada, an NGO working in Southern India, insists that all works on private lands should be fully financed by the individuals concerned.

21. Thus, with a few exceptions, efforts by government and international agencies to introduce watershed rehabilitation on a large scale have left little lasting impact on the ground.

Characteristics of Successful Projects

22. Successful programmes that have adopted participatory approaches share the following characteristics:

- They devote significant resources to social issues;
- A high proportion of staff members have experience and skills in social mobilization;
- Project leaders are fully committed to participation and, in most cases, donors or senior officials apply pressure to adhere to participatory approaches;
- Project monitoring explicitly checks whether local organizations of users have been formed;
- Staff members have an incentive to undertake participation; and
- Communities being organised have capacity to influence how the field staff work.

23. Wherever such priorities have been kept in mind, success stories of micro watersheds abound (see boxes at the end of the chapter).

24. In addition, States like Madhya Pradesh and Andhra Pradesh have taken to a 'mission mode' to go about watershed development. For instance,the Rajiv Gandhi Watershed Management Mission initiated in Madhya Pradesh in 1994 identified degraded lands in geographical units of 5000 to 10000 hectares. Called milli watersheds, they are further divided into micro watersheds of 500-1000 hectares where people are organised into User Groups for the land owning class, Self-Help Groups of the landless and Thrift and Credit Groups for women. Between 1994-98, against a target of 12 lakh hectare, the Mission covered 34 lakh hectare; completed soil and moisture conservation works in 12 lakh hectare; and formed 5000 watershed committees, 30344 user groups and self-help groups and 5304 women thrift and credit groups. As a result of all these efforts,, the ground water

has been recharged in these areas and water levels have increased considerably. There has been an improvement in agricultural productivity and in the coverage of land by bio-mass.

25. In Andhra Pradesh, the early nineties saw successful watershed development in select districts . Then, in 1997-98, the Government launched a 10-year perspective plan for development of 100 lakh hectares of wastelands. The technical input for this comes from Andhra Pradesh Remote Sensing Application Centre, which will also monitor the progress on half-yearly basis in terms of changes in ground water levels, afforestation, biomass coverage etc. A massive programme of training and capacity building has been initiated. An essential pre-requisite to select an area is community mobilization.

Other policy issues

26. It should be stressed here that watershed development programmes do not directly address poverty or unemployment. It aims at increasing or stabilising the carrying capacity of land and water resources in rainfed areas. As poverty is both a cause and effect of over-exploitation of natural resources, successful watershed development would result in sustainable reduction in poverty. On the other hand if production is not emphasised as the goal, one may end up achieving neither reduction in poverty nor employment.

27. The quality of implementation is often poor due to lack of trained staff at field level and the apathy of bureaucrats in charge of planning and executing the project. There is lack of inter-departmental coordination and inadequate preparatory work. Furthermore, the interface of watershed associations/committees with Panchayati Raj Institutions, particularly the Gram Panchayats, is tenuous. Of course, members of the watershed association are also members of the Gram Sabha but they would have to be made accountable to both the Gram Sabha and the Gram Panchayat. Lastly, given that development of agriculture on a watershed basis would be biased in favour of those who own land, it is important to ensure that the landless do not suffer in contrast. Access to land through *Pattas* on common property resources, usufructuary rights on forest produce and non-farm employment would have to be ensured on equity considerations.

28. A new Department of Land Resources was created in April 1999 by merging schemes of area development (like DPAP, DDP and watershed development/soil conservation/social forestry as part of EAS) with the present Department of Wastelands Development. Ideally, the new Department should follow a mission approach and should be free to allocate funds to states on the basis of performance and effective utilisation. Its future strategy should be capacity-building of grassroot organisations in planning, monitoring, implementation and marketing. Other features of the new approach:

- 25% contribution by state governments.
- Decentralise the power to sanction projects and give it to state governments.
- Prepare projects for adjoining districts professionally.
- Constant monitoring, evaluation, impact assessment by external experts. NABARD, MANAGE, NIRD, etc to be involved in this exercise.
- Funds in the first stage should be given for states which set up organisational structures to appraise such projects properly.
- High priority to rejuvenation of village ponds and tanks and recharge of groundwater.
- Integration of all area development with felt needs of the people, such as drinking water, credit, etc.
- Training of district level officers to be an integral part of such projects and implementation should begin only when such training is complete. This will also require preparation of appropriate training modules; selection of training institutions and training of trainers.
- There should be an advisory body for each state/ project consisting of experts, NGOs and people's representatives who should meet regularly to advise on policy and implementation issues.
- Panchayats should be involved and the involvement should include transfer of funds to village level bodies including user groups to handle those funds; the job of Government agencies should be to facilitate and train rather than control funds. Where panchayats represent several villages, single- village organizations — as a sub-units of panchayats — should be created so that land in question is appurtenant just to one village to avoid conflict.
- The ownership and control over revenue wastelands should be transferred to Panchyati Raj Institutions (PRIs) and village organisations to ensure certainty of tenure. In ex-ryotwari states, transfer of revenue lands to panchayats has still not been done, which makes it problematic for the village panchayats to 'own up' efforts on such lands.
- Since cultivable wastelands in many States have already been settled with the poor, special projects should be undertaken to make such lands productive. Private ownership will help in sustained increase in land productivity.

29. In short, the objective of all land based intervention should be, "To enable rural people in rainfed regions to prevent, arrest and reverse degradation of life support systems, particularly land and water, so as to produce biomass in a sustainable and equitable manner'. It is important to look at forest lands, non-forest wastelands and crop lands in an integrated manner. This is often not done as treatment upstream to reduce soil movement does not benefit large farmers who are downstream. They see no advantage and are indifferent or opposed to this strategy. They would prefer to conserve and harvest water in the drainage line so that it can be used directly for irrigation or to replenish groundwater. However, lands in the upper catchment should be rehabilitated first for at least three reasons: First, the landless and the poor who depend on upper slopes can benefit; second, groundwater recharge begins at the earliest; and third, by the time the lower catchment is treated any debris and erosion running down from the upper catchment will have been minimized.

30. However, upper slopes typically are under the control of Forest Department (FD) and it does not permit other departments to operate on its lands. The Ministry of Rural Development recently permitted its funds to be used in watershed schemes by FD, but a similar initiative is needed from the Ministry of Agriculture too. Between forests and agriculture, the complementarity needs to be strengthened; that way, the local community will get to develop a stake in the preservation of forests, which in turn can deter individual attempts at encroachments or degradation. For now, then, three life support systems — land, water and forests — remain unintegrated administratively and management-wise. Therefore, the government would strive to do integrated planning at the village level through peoples' participation. Linking the future of forests and uncultivated lands with crop lands and groundwater recharge alone will ensure sustainability of the government efforts.

Examples of Success

Box-1 Watershed Development in Ralegaon Siddhi

Ralegaon Siddhi Project, covering four watersheds in geographical area of about 892 hectares in Maharashtra, is one of the success stories. In a total project outlay of of Rs.112.75 lakh, the State Government contributed Rs.52.75 lakh , Rs.47 lakh was borrowed from banks, Rs.11 lakh was put together by villagers through shramdan and the remaining Rs.2 lakh was raised from other sources. Result of the initiative: a series of checkdams, cemented bandharas, and nullah bunds have been built at strategic locations. All these increased the infiltration of harvested water and recharged ground water. Today Ralegoan Siddhi has two percolation tanks, thirty nullah bunds, eighty-five wells, and eight borewells all of which are viable right through the year. Farmers now grow two or three crops every year including fruits and vegetables. All the soil and water conservation structures were built through community action. The villagers have stopped grazing their animals on common lands; instead, they have switched to other ways. To take care of equitable distribution of water, they have formed associations pani puravatha mandals. The success story owes much to leadership of Sri Anna Hazare who turned a once poverty stricken Ralegaon Siddhi into a self-sufficient village. It is the people's participation that gave it all element of sustainability.

Box-2 Johad – Watershed in Alwar District of Rajasthan

- Responding to an impending water crisis, people at Alwar acted jointly to revive a traditional technology to restore the ecological balance of the region. It was simple enough: they used 'Johad,' a form of tank in which the locals stored water for lean seasons in years gone by.
- Tarun Bharat Sangh (TBS), a voluntary organisation, brought the village community together to build 2500 Johads in 500 villages in 8 blocks of Alwar district.
- The Gram Sabha (i.e. village community) was responsible for selection of site, construction and maintenance of Johads and also controls the use of water from it.
- Villagers contributed 70-90 per cent of the cost in cash, kind and labour. TBS mainly paid for hiring skilled labour (masons) and to buy cement, iron, diesel etc. Their involvement has given the villagers a sense of ownership and ensures maintenance of structures.
- Johad is constructed in a place that receives maximum run-off for harvesting. The size of Johad is based on an anticipated quantity of run-off. Its shape is dictated by the flow of water and its pressure.
- The Johad initiative has fulfilled a need for water to drink and for irrigation purposes, and restored ecological stability by increased recharge of ground water. It has increased food production, helped in soil conservation, increased the level of water in wells, increased biomass productivity and even converted two seasonal streams Arvari and Ruparel into perennial rivers.
- For women in the village, no longer do they have to go through the drudgery of long, long walk, pots on their head, to fetch scarce water.

Box-3 integrated Micro Watershed Development Programme of N.M. Sadguru Water and Development Foundation in Gujarat Village

- Thunthi Kankasiya is a tiny village of Gujarat, its inhabitants all tribals. Being remote, the sleepy village had hardly had any development activity about it for long.
- That was until 1991. Then, groups of villagers approached 'Sadguru' with their problem: how to undertake land and water related activities in the village. Their first and foremost demand was to bring River Machhan water to their village to meet the need for drinking water and irrigation.
- Thus began a major watershed initiative which involved conserving soil and water. In the last six years, as their efforts grew in intensity, the experiment left a considerable impact on the socio-economic milieu of the village.
- In 1998, almost the entire village population was brought above the poverty line with average household income a tidy Rs.35, 620 per year vis-a-vis Rs.9,000 in 1991.
- Agriculture production is up to 4000 Kg per hectare per year as against 900 Kg per hectare in 1991.
- A high migration rate of 78 per cent to 80 per cent has become a trickle of 5 per cent; and its duration – once up to nine months – is just a two- month period.
- In 1998-99, there were 2,00,000 trees and more in a village which barely had 50-odd trees when the experiment was launched.
- Drinking water shortage is a thing of the past, what with 21 perennial wells where water is available at 30 feet against more than 100 feet earlier. There is a constant recharging due to watershed intervention.
- The village has electricity, roads, health sub-centre and a three room school building.
- Thunthi is not the only one of its kind. There are more than 300 such tribal villages across the borders of Gujarat, Rajasthan and Madhya Pradesh falling under Mahi basin and Mahi macro watershed. They all have witnessed similar transformation under the Sadguru integrated micro-watershed development approach.
- This transformation has been brought about with full involvement and participation of the local people in the form of Watershed Associations, User Groups, Self-Help Groups, Irrigation Management Committees and the like.

Box-4 Jhabua, Madhya Pradesh Shows the Way:

- Jhabua has shown how a State bureaucracy has taken the initiative to empower the iocal population to manage its environment through people-driven watershed development. The various Departments worked in unison and people's involvement in the programme was total in the shape of participatory appraisal, formation of user groups and self-help groups.
- Here are some highlights of an evaluation of selected watersheds which were in functional between 1994 and 1998:
- Just under 250 micro watersheds were built; they came up in 374 villages; among them they covered 22 per cent of the district land area by April 1998.
- Irrigated area doubled in 4 years because of increased water availability.
- Agricultural productivity, cropped area and cropping intensity of cultivated area all have increased.
- Food availability has increased and 313 village level Grain Banks have been established providing food security for the local population.
- A 66 per cent reduction in wasteland area has been achieved in 11 micro watersheds, thanks to watershed management and planting of various beneficial species such as bamboo, anwla, acia catchu and neem.
- Perhaps the biggest benefit of them all is the rapid regeneration of grass. , which has increased the fodder availability. Earning money from selling grass is one gain; alongside, villagers have started keeping better breed of cows and buffaloes. Increased water availability has stepped up vegetable production as well.
- Dependence on money lenders has gone down. Distress migration has reduced considerably.
- In Jhabua, total expenditure till mid 1998 was Rs.16.48 crore, of this Rs.11.95 crore has gone into direct investment in watershed development works. Enthused villagers now save a part of their wages to raise a Watershed Development Fund (WDF) and a Gram Kosh (Village fund); they intend to use these funds for collective activities and *baira ni Kuldi* (Women's thrift and credit groups). This has improved the financial security of the villagers, both collective and individual.

Box 5 All- Woman Watershed Committee in MP Village

- Gauraiya is a multi-caste village 25 Kms from Sagar District in Madhya Pradesh. This area was characterised by barren land and a feudal set-up. Traditionally, the task of fetching drinking water from far flung places fell on women.
- The turning point came in 1977 when an all-woman Watershed Management Committee was formed, headed by Sita Bai. This initiative under Rajiv Gandhi Watershed Management Mission has paid unexpected and rich dividends.
- The village now gets assured water supply through pipes throughout the year.
- Area under cultivation has almost doubled and the average farm produce trebled in three years.
- Women's Self Help Groups protect 5.5 lakh trees planted on community and Government land. Social fencing by women volunteers has also ensured the survival of 90% of those trees.
- The improvement in soil quality and underground water levels has also led to regeneration of nearly three lakh teak and two lakh bamboo trees planted four years ago.
- Gauraiya women have also organised seven *mahila bachat samoohs* (women's self help groups) with impressive bank savings ranging from Rs.15,000 to Rs.25,000.
- Jagriti, a self help group of harijan women, plans to go in for cattle rearing, while some other groups have taken up a Government contract to supply porridge and dal to 150 aganwadis in adjoining villages under mid-day meal scheme.
- In Gauraiya women lead and men follow. It is the change in the gender relations brought about by the empowerment of women that makes the story of Gauraiya stand apart.

CHAPTER 10

DECENTRALIZATION & PANCHAYATI RAJ INSTITUTIONS (PRIS)

It is more than seven years since the Constitution 73rd Amendment Act 1992 came into force. Most of the Panchayati Raj Institutions (PRIs) constituted under the new Act are completing their first five-year tenure. Therefore, it is an appropriate time for appraising the functioning of PRIs in different States so as to reflect on emerging trends and to identify the impediments that have emerged in the process of democratic decentralisation.

2. The status of PRIs can be reviewed in terms of following parameters:

- (i) Conduct of Panchayat elections;
- (ii) Devolution of Financial Powers;
- (iii) Devolution of Functions and Functionaries;
- (iv) Constitution of District Planning Committees (DPCs);
- (v) Status of Gram Sabha;
- (vi) Act 40 of 1996;
- (vii) Checks and Balances over PRIs and Accountability

3. Further, there are other issues which are central to the effectiveness of PRIs as conduits for delivery of economic and social services. These include participation, transparency and sustainability and the interface of PRIs with other parallel organisations operating at the local level.

Conduct of Panchayat Elections:

4. Except for Assam, Arunachal Pradesh, Bihar and Pondicherry, Panchayats have been constituted in all other States where they were to be set up according to the new provisions. For Arunachal Pradesh, the Ministry of Rural Development intends to introduce a bill for amending Article 243 D of the Constitution to exempt it from the requirement of providing for reservation of seats for Scheduled Castes. This will provide a legal and Constitutional basis for PRIs in Arunachal Pradesh in accordance with the socio-demographic ethos of the State. In Bihar and Pondicherry, the elections to PRIs could not be held because the matter is sub-judice. Assam has cited law and order problems as a reason for not conducting Panchayat elections that fell due in 1997.

5. As a result of election to PRIs in States/Union Territories, 2,27,698 Panchayats at village level, 5906 Panchayats at intermediate level and 474 Panchayats at the district level have been constituted in the country. These Panchayats are being manned by about 34 lakhs elected representatives at all levels; of them one-third are women. This is the broadest representative base that exists in any country in the world.

6. Elections to PRIs on expiry of their first term have been held in Haryana, Karnataka, West Bengal, Uttar Pradesh and Madhya Pradesh.

Devolution of Financial Powers to PRIs:

7. States where panchayats exist have constituted their respective State Finance Commissions (S FCs). Except for Sikkim and Goa, SFCs have submitted their reports to respective State Governments. Recommendations of the SFCs have been accepted in toto by ten States, viz; Karnataka, Kerala, Madhya Pradesh, Manipur, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. In case of Andhra Pradesh, Himachal Pradesh, Haryana and Maharashtra, the State Governments are still considering the reports. In Gujarat, the report is yet to be placed before the State Legislature. The Government of Assam has accepted SFC's recommendations in part while the Orissa Government has accepted the report with some modifications. It would seem that the reports of SFCs have not attracted serious attention from many State Governments.

The recommendations of the State Finance Commissions can be divided into three categories:

- (i) Assignment of taxes, duties, levies and tolls to local bodies;
- (ii) Sharing of revenue proceeds; and
- (iii) Transfers on account of grants-in-aid and other financial assistance.

As per the SFC recommendations, many of the State Governments have agreed to give PRIs a specific percentage of share in some of the State taxes like land revenue and cess on it, additional stamp duty, entertainment tax, royalties on minerals and mines, forest revenue and market fees; these taxes are less buoyant in nature and have no relation to the powers and functions to be devolved upon Panchayats. More buoyant taxes like sales tax and excise are kept out of the purview of PRIs. All SFCs have put great emphasis on internal revenue mobilisation, but none has suggested any effective mechanism for PRIs to generate their own revenue. SFCs do not recommend or foresee any noticeable change in the tax (including the non-tax) jurisdiction of local bodies. However, the SFCs suggest better use of the existing tax jurisdiction by referring the system of property taxation and giving greater autonomy to local bodies in matters relating to tax rate setting. SFCs place greater reliance on transfers for bridging the gap between the local bodies' revenue and expenditure.

8. In real terms, no improvement in local resource base is likely as a result of the recommendations of SFCs. Moreover, the SFC reports have paid far less attention to issues of autonomy, financial management and auditing procedures. The main deficiency of the reports lies in the fact that the recommendations are not based on a clear statement of the spending responsibilities of local bodies. Indeed the absence of attention to the elementary principle, that expenditure assignment must precede any tax or revenue assignment, has made most of the SFC's recommendations suspect.

9. All PRIs have a poor fiscal base. While resource mobilisation by the PRIs is generally limited, it is imperative to provide PRIs with revenue raising powers of their own in order to reduce their excessive dependence on the State and Central Governments. But till such time that they are financially dependent on funds from the State Governments, the State Budgets should specify the amount earmarked for district sector plans under Panchayati Raj as also their distribution among the three tiers. It is suggested that 30-40 percent of a State's Plan be devolved on local bodies as already done in the State of Kerala. In addition, a part of the finances should be in the form of untied funds so that the funds can be utilised as per the felt needs of the Panchayats. Training and capacity building of PRI functionaries is essential and devolution of financial resources must be accompanied by suitable strengthening of PRIs through transfer of departmental functionaries.

Devolution of Functions and Functionaries:

10. In respect of the 29 subjects identified in the Eleventh Schedule it is necessary for the State Governments to clearly identify what would be done by the three tiers of Panchayats at their levels. This should be based on the rule that what can be done at the lower level should be done only at that level, no higher. Furthermore, departmental functionaries who are required to implement the programmes at the Panchayat level must be placed under their overall supervision and control.

11. In States like Gujarat, Madhya Pradesh, Maharashtra, Karnataka, Kerala, Orissa, Rajasthan, Tripura, Uttar Pradesh and West Bengal detailed instructions have already been issued and in several cases departmental functionaries have been placed with the Panchayats. The Government of Madhya Pradesh has transferred 18 Departments to the PRIs with administrative control over class III and IV employees deputed to the Panchayats. PRIs are actively involved in the implementation of the programmes of these Departments. (see Box 1)

Box - 1

Panchayati Raj in Madhya Pradesh

- Activities of governance and development have been clearly demarcated between Panchayat Sector and the State Sector.
- 18 Subjects/Departments have been transferred to PRIs.
- All district and sub-district level officers and employees in respect of programmes transferred to PRIs are placed under control of PRIs at the appropriate level.
- Greater coordination among the three tiers through representation of 1/5 sarpanchs to Janpad Panchayat, Janpad Panchayat Adhyakshas to Zilla Parishad.
- Gram Panchayats are empowered to sanction development works up to Rs.Three lakhs, Janpad Panchayats up to Rs.Seven lakhs and Zilla Panchayat up to Rs.Ten lakhs.
- Merger of District Rural Development Agencies (DRDAs) with Zilla Panchayats.
- Gram Panchayats recruit the Panchayat karmi designated as Secretaries. Shiksha Karmis are appointed by Janpad Panchayats and Zilla Parishad. No recruitment by State Government to 'dying cadres'.
- Budgetary allocations for transferred programmes/ subjects are made available to PRIs. From 2000-01, tier-wise and district wise provision would be made in the Budget to ensure efficient flow of resources to PRIs.
- Greater transparency in selection of beneficiaries and implementation of programme through social audit by strengthening the Gram Sabha/Panchayat in the State. For instance, no technical evaluation required for Jawahar Gram Samaridhi Yojana (JGSY, or old JRY) works; instead quality and utility of works subjected to social audit through Gram Sabhas.
- First and only State to introduce the concept of "Right to Recall" of elected representatives at Gram Panchayats once in their tenure for greater accountability to the Gram Sabha.

12. The Government of Kerala has transferred Agriculture, Health, Veterinary and Primary Education Departments to the Panchayats. About 40,590 staff, moveable and immovable property have also been transferred to the Panchayats. The State Government however continues to pay the staff salaries.

13. The Government of Uttar Pradesh has transferred selective activities/functions and functionaries of 11 departments along with their salary to Village Panchayats. During 1999-2000 nearly ten percent of the Annual State Plan outlay, i.e., Rs. 1,100 crore was to be directly transferred to the Village Panchayats. The State Government has further taken a decision to declare cadres of all its employees whose services have been placed under administrative control of Village Panchayat as 'dying cadre'. The Government has also posted at least one functionary as Panchayat Secretary in each Village Panchayat. The assets of departments whose selective functions have been transferred to Village Panchayats within the territory of those Panchayats will be handed over to concerned Village Panchayat for maintenance in a time-bound manner.

14. The Government of Rajasthan has transferred nine schemes which were earlier being implemented by DRDAs to the Zilla Parishad with effect from 1.4.1999. It has also set up a Village Level Standing Committee for each village under the Chairmanship of Sarpanch of the Gram Panchayat to act as "watch dog". It will keep watch on the absenteeism of grassroot functionaries of the Departments, namely Patwari, Teachers, ANMS, MPW, VLW, Anganwadi workers and Compounder posted in rural areas. Primary and Upper Primary Education, Literacy and Continuing Education, Rajiv Gandhi Scheme for Restoration of Traditional Drinking Water Sources, Rajiv Gandhi Swarn Jayanti Pathshalas will all be implemented by the PRIs. Further, innovative projects like Lok Jumbish, Shiksha Karmi and District Primary Education Programme (DPEP) have also been brought under the umbrella of the Panchayati Raj Department. In Orissa, 16 subjects listed in the Eleventh Schedule of the Constitution have been transferred to the Zilla Parishads and concerned District Level Officers of the line department have been declared ex-officio Additional Executive Officers of the Zilla Parishads.

15. In some States, functions and functionaries have not been transferred to PRIs. For instance, in the field of decentralisation, the State Government of Andhra Pradesh is implementing 'JANMABHOOMI' mainly through the State bureaucracy, which is against the spirit of the 73rd Constitution Amendment Act,1992. However, after strong protests from Sarpanches, the State Government has agreed to transfer 16 out of the 29 subjects of rural administration to the local bodies. Also, Haryana State has circulated a list of 16 Subjects to be transferred to PRIs. The exercise appears to be vague as it does not provide for any transfer of funds, personnel and powers to the elected bodies. The responsibilities relate mostly to supervision and monitoring.

16. In view of the above, it is felt that initiatives such as taken by Madhya Pradesh, and Kerala need to be taken by all the States and Union Territories if Panchayats are to be established as institutions of local self-government.

Constitution of District Planning Committees (DPCs):

17. Despite long years of delay, many States are yet to constitute the DPCs. Only nine States, namely, Haryana (just in 3 Districts), Karnataka (10 out of 27 districts), Kerala, Madhya Pradesh, Rajasthan, Sikkim, Tamil Nadu, Tripua and West Bengal and two Union Territories, namely, Andaman & Nicobar Islands and Daman & Diu have taken action to constitute DPCs. In Tamil Nadu, operational orders for DPCs are yet to be issued. The formation of DPCs must receive top priority by the State Governments; it is only then that planning would genuinely begin from the grassroots. In Kerala, a Voluntary Technical Corps (VTC) has been created consisting of about 10,000 technical experienced people to vet and re-work projects prepared by the panchayats. These include retired persons with technical expertise, bank personnel and officials of government departments. Similarly, in other States, voluntary groups and institutions need to be identified for providing services, training and support for effective implementation of programmes at the local level. The Planning model followed in the State of Kerala is worth replication in other States also.(see Box 2)

Status of Gram Sabha:

18. Nearly seven years down the line, it has been observed that most of the State Acts have not spelt the powers of Gram Sabhas nor have any procedures been laid down for the functioning of these bodies. For instance, (i) the law in most States prescribed *at least* two meetings of the Gram Sabha in a year. Unfortunately, the minimum has been interpreted as a maximum. (ii) Provision doing away with the need for quorum for adjourned meetings of the Gram Sabha has reinforced the tendency to view Gram Sabha meetings as a mere formality; (iii) State laws set out highly ritualistic functions for the Gram Sabhas. Gram Sabhas are to recommend and suggest, consider annual accounts, administrative reports, audit notes, etc. These suggestions and recommendations of the Gram Sabhas could be ignored by the Gram Panchayat.

Box- 2
People's Planning Campaign in Kerala

- People's campaign for Planning was launched in Kerala State in 1996, with the aim of empowering local bodies in the State to function as institutions of local self government as well as the agents of local development.
- Devolution of 35% to 40% of the State's Plan outlay for projects and programmes drawn up and implemented by local bodies.
- The People's Campaign has been organised in six phases with clearly defined objectives for each phase.
- Phase I - Gram Sabha: Identification of the needs of the people has been accomplished by convening Gram Sabha. Priorities listed and Awareness created.
- Phase II - Development Seminars: Make an objective assessment of the natural and human resources in the locality. Development Seminars also discuss the Development Reports being prepared for each Panchayat.
- Phase III - Task Forces: Sector-wise Task Forces have been constituted in local bodies to projectise the recommendations & suggestions from the development seminars.
- Phase IV - Annual Plan Finalisation: The major task was finalisation of Annual Plan of Gram Panchayat by including projects approved by the local bodies.
- Phase V - Integration of Plans of Higher Tiers: Every Block Panchayat has to prepare its development Plan integrating village development reports as also the Centrally Sponsored poverty alleviation programmes. Similarly, each District Panchayat has to prepare a development report integrating the suggestions and programmes of the lower tiers.
- Phase VI - Plan Appraisal: This phase is organised to ensure technical soundness and viability of projects prepared by the local bodies before they are approved for implementation. For this, a new concept of Voluntary Technical Corps (VTC) has been adopted. Retired technical experts & professionals were encouraged to enroll themselves as volunteers to appraise the projects and Plan of local bodies. Further, Expert Committees were formed at Block (BLEC), Municipality (MLEC), Corporation (CLEC) and District (DLEC) levels drawing personnel from the VTC and including certain categories of mandatory officers. The Committees have Subject Committee and their tasks are technical and financial appraisal of the projects and issue of technical sanctions.
- Training Programmes: For ensuring the success of local level planning, training at the State, District, Block and Gram Panchayat levels has been organised for the elected members, officials, resource persons and non-official experts.

19. There are, at the same time, heavy expectations from this weak and powerless Gram Sabha - it was expected to promote harmony and unity in the village, mobilise voluntary labour and contribution in kind and promote programmes for adult education and family welfare. It must be acknowledged that some State Acts do provide for powers to the Gram Sabhas to identify beneficiaries who are to be covered under different development schemes, For instance the Panchayati Raj Acts of Punjab, Rajasthan, Uttar Pradesh, Karnataka and Bihar did vest powers in the Gram Sabhas to select beneficiaries, but in some cases strange qualifications were added. The Rajasthan law provided that in case the Gram Sabha was unable to select the beneficiaries in a reasonable time, the Gram Panchayat would identify them. This provision expressed faith in the Gram Sabha while at the same time it also permitted its undermining. In contrast, Madhya Pradesh and Kerala have made legal provisions to make the advice of Gram Sabha binding on the Gram Panchayat. Finally, the membership of a Gram Sabha varies widely from State to State-from 250 to 8,000. It may be confined to a single village or may span 2-3 villages. Where the Gram Sabhas cover more than one village, their meetings qualitatively are seen to be very poor. The 73rd Amendment has not anticipated that the very size of a Panchayat may work to disempower a Gram Sabha.

20. Principally, the 73rd Amendment has not set down in black and white an imperative for the empowerment of Gram Sabhas. In order to accelerate the emergence of Gram Sabhas as bodies to whom the PRIs are accountable, it might be essential to spell out the powers and functions of Gram Sabha in great detail —articulating their role as planners, decision makers and auditors. The size of a Gram Sabha also needs to be carefully set out.

21. However, despite all these shortcomings, there are several examples of how dedicated/committed, enlightened Sarpanches have transformed their villages into self-reliant units. Some illustrations are given in the boxes below.

22. Despite reluctance of the state governments to give more powers to the Gram Sabhas (see below a discussion on dilution of law by the states in the case of tribal areas), it must be said that the Central Government favours strengthening of Gram Sabhas as the bedrock of grassroots democracy. The year 1999-2000 was declared **"Year of the Gram Sabha"**. To energise Gram Sabhas, State/UT Governments were told to initiate measures such as vesting full powers in them for identifying beneficiaries and determining the priorities for various programmes in the village and approval of budget. The Ministry has not

Box-3
Shri Hardevsingh Jadeja, Sarpanch, Rajasamadhiala Village, Gujarat.

- Shri Hardevsingh Jadeja, Sarpanch has transformed the village Rajasamadhiala into a model village, totally crime - free and characterised by self-reliance, inter-caste amity and active community participation.
- Nobody in village ever locks his house; the shopkeeper does not lock the shop for his afternoon siesta. People can buy/help themselves unattended by the shopkeeper and leave the money in a matchbox, which is also unattended/unguarded.
- Shri Hardevsingh Jadeja has succeeded in convincing the village people that demanding or begging from the Government is not the solution to their problems but joining hands is. About Rs. 100 million has been earned in 15 villages due to better irrigation through the small dams built by the village people themselves with very little Government help.
- This charismatic Sarpanch is now spreading his message in the neighbouring villages.

Box-4
Smt. Kamala Mahato, Pradhan, Bandoan Village of Purulia District, West Bengal.

- Smt. Kamala Mahato is one of 186 women Panchayat Pradhans in West Bengal with its 3,222 Village Panchayats.
- Bandoan is a poor village in one of the poorest districts, Purulia. The village comprises a mix of tribal and non-tribal population, most of whom are agricultural labourers. Scarcity of water was the major problem of the village. Smt.Kamala Mahato had 10 tubewells dug in the village in the 5 years since she took over as Pradhan; there are other wells and irrigation wells as well in the village.
- Smt. Kamala Mahato wanted women of the village to have income of their own. To achieve this, she has vigourously implemented Integrated Rural Development Programme (IRDP) and the women now are profitably engaged in poultry, dairy, livestock and frying muri. They are able to help themselves and even attend to cleaning of wells and repair of tubewells. The Panchayat led by her has also been successful in settling cases of domestic violence without the help of the police.

Box –5
Shri Rajinder Kumar, Sarpanch, Village Chamaund, Hissar District, Haryana.

- There are 1,200 people in this village but none has ever aproached the police or any court of law for redressal. Even the most contentious issues are resolved by the Panchayat by consensus. Casteism has been relegated to the background and universal brotherhood prevails in this village.
- Grants of over Rs.35 lakhs received by the Panchayat have been spent on construction of a village school, dispensary, drains and other similar development works. Watershed development has also been taken up in a big way.
- Almost every child including girl children of the village goes to school which has resulted in higher literacy rate in the village.

done any evaluation about the long term impact of this declaration on participation and empowerment of the disadvantaged.

Act 40 of 1996:

23. The provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 (PESA) have come into force on 24th December 1996. The Act extends Panchayats to tribal areas of eight States namely, Andhra Pradesh, Bihar, Gujarat, Himachal Pradesh, Maharashtra, Madhya Pradesh, Orissa and Rajasthan; it will enable tribal society to assume control of its own destiny to preserve and conserve the traditional rights over natural resources. All States barring Bihar and Rajasthan have enacted State Legislation to give effect to the provisions contained in Act 40, 1996 as mandated under the Central Act. Rajasthan promulgated an ordinance in this regard recently.

24. PESA is a unique legislation; it gives radical self-governance powers to the tribal community and recognizes its traditional community rights over natural resources. Prior to passage of this Act, laws passed by central and state governments were applied mechanically to tribal areas even when these contravened traditional tribal practices and institutions. However, under PESA the law focuses on settlements which the tribal people themselves perceive to be traditional and organic entities. In fact this is the first law that empowers people to redefine their own administrative boundaries. PESA provides that the tribal gram sabha so defined would be empowered to approve all development plans, control all functionaries and

Box-6
Fatima Bi: Success Story of a Woman Sarpanch

- Fatima Bi, Sarpanch of Kalva village in Kurnool district, Andhra Pradesh, was an illiterate woman but she was good enough to bag the United Nations Development Programmes's (UNDP) Race Against Poverty Award for the Asia - Pacific Region.
- She was an ordinary housewife when she became a proud Sarpanch, a seat declared reserved for women in her village.
- In her new role, Fatima Bi was influenced by Vijay Shanti, the actress who played an angry woman fighting for justice in the Telugu blockbuster Ramuluamma. She was also inspired by the District Collector and the UNDP Project Director.
- In the very first session of training for Panchayat women, Fatima Bi thundered: " Where are the village records?" The Mandal officials promptly promised to bring all the records over. Then, she called a meeting of the village women and asked them to join hands with her in developing the village.
- That was the beginning of an inspired leadership. A metal road was laid, check dams were built, a new school building was raised and the old school building was done up. Under the Chief Minister's Janma Bhoomi programme village women raised Rs 30,000. A scheme was taken up at a cost of Rs 2 lakh to dig a 5 Km. irrigation drain and clear 500 acres of fallow land for paddy cultivation. Fatima Bi led the womenfolk to join the 'Podupu Lakshmi' groups and urged them to save a small amount of money every month. Within a year, 40 Thrift and Self-Help Groups with 300 women members saved Rs. 2 lakh. The UNDP was impressed by this achievement and granted Rs.12 lakh as an interest - free loan to the Village Development Organisation - an umbrella organization of Kalva. The organisation is now run by a women committee consisting of representatives of Self-Help Groups with Rs. 20 lakh at its disposal. The loans granted by it have helped many families to undertake small businesses and improve their living conditions. The enterprising women of Kalva have now started helping neighbouring villages with loans.
- Once poor and backward, Kalva is now a completely transformed village with happy faces all around and modern amenities in almost all houses. Child marriages are a thing of past. The women who have suffered social injustice all along now stand by the side of their daughters. All credit to the hard working woman Sarpanch who rightfully won the title of Uttam Sarpanch and received an award on Independence Day this year. She is now planning a hospital and a ring road around her village to connect it to the bus stand.

institutions of all social sectors as well as control all minor water bodies, minor minerals and non-timber forest resources. It would also have the authority to control land alienation, impose prohibition, manage village markets and resolve internal conflicts by traditional modes.

25. In one stroke, the Act creates space for people's empowerment, genuine popular political participation, convergent community action, sustainable people-oriented development and auto-generated emancipation. In reality, however, since its passage the law has almost been forgotten and it has not become part of the mainstream political or policy discourse. Many state governments have passed laws not fully in conformity with the central law. Academics, administrators, policy makers and even parliamentarians are unaware of this. For their part, the tribal greeted the law with enthusiasm but find themselves progressively handicapped by the lack of actual preparedness to negotiate development and of democratisation in the manner envisaged by the law.

A Minimalistic interpretation

26. Implementation of the law has been severely hampered by the reluctance of most state governments to make laws and rules that conform to the spirit of the law. What is perceived as weak-kneed political will has led to bureaucratic creativity in minimalistic interpretations of the law.

27. Bureaucratic subversion of the letter and spirit of the law has been most visible in interpretation of that provision of PESA by which *panchayat*s at appropriate levels and the *gram sabha* have been vested with the ownership of minor forest produce (MFP). For tribal forest dwellers, the forest department has been the most visible oppression (One piece of anecdotal evidence, recounted by Verrier Elwin, is particularly revealing. When queried about his idea of paradise, a tribal described it as miles and miles of forest, but without a forest guard!). Enforcement of PESA is perceived as weakening the stranglehold of the forest bureaucracy, and it is instructive to study *the interpretation of PESA* favoured by the state governments for attempts to minimise the bureaucratic loss of control.

28. Firstly, the state governments have argued that the power of *gram sabha*s can extend only to forest located within the revenue boundaries of a village. This one provision, if accepted, would nullify the law because often reserved forest in most states is not located within a revenue village. The spirit of the law is clearly to extend

ownership to the *gram sabha* of MFP from forests located in vicinity of the village of traditional access. In fact, in the case of Joint Forest Management (JFM), the Madhya Pradesh government vested the village forest committees with authority to manage forest falling within a radius of five kilometres of the village boundaries. A similar dispensation would eminently suit the PESA case as well.

29. Secondly, MFP has been defined to exclude cane and bamboo. This is contrary to the commonsense definition of MFP which is 'that part of a tree that can be sustainably harvested without damage to the survival of the tree.' More significantly, it denies access to poor tribal artisans to two types of MFP on which their livelihood is most critically dependent. On the other hand, many state policies have subsidized bamboo for private industry.

30. Another controversy is in the interpretation of the concept of 'ownership' of MFP by the *gram sabha*. The status quoists' view is that ownership does not provide *gram sabha* the right to take any decisions related to stewardship, management or sustainable harvesting of MFPs. Contrary to a whole body of empirical evidence from the national and international experience of JFM and community control of forests, it is claimed that the exercise of 'ownership' of MFPs by *gram sabha*s in this sense would inevitably lead to a destruction of forests. Therefore, 'ownership as provided for in PESA is reinterpreted to mean the right to net revenues from MFP, after retaining administrative expenses of the forest department.

31. These interpretations have almost killed the concept of ownership and control of local resources by Gram Sabha. The status of the operationalisation of other powers envisaged in PESA by the State Governments is given in the following Table:

32. In order to make the Central Act effective, it is necessary for the State Governments to make appropriate amendments in their State Laws which impinge on specific provisions contained in the Central Act namely (i) Land Acquisition Act; (ii) Excise Act; (iii) State Irrigation Act; (iv) Minor Forest Produce Act; (v) Mines and Minerals Acts; (vi) Land Revenue Code / Act; (vii) SC/ST Land Alienation Act; (viii) Money Lenders Act; and (ix) Regulated Market Act. No doubt, some State Governments (MP) have already amended some of the relevant Acts; others are yet to follow suit.

33. The above review of the Central Act 40 reveals that most State Acts and especially of Orissa have assigned a less prominent role to Gram Sabha / Gram Panchayat in Schedule Areas than envisaged in the Central Act.

34. Orissa has made a complete departure from the Central Act by assigning the powers to be consulted to the Zilla Parishad in place of Gram Sabha / Gram Panchayat in respect of (a) acquistion of land and resettling and rehabilitation of the persons affected by the acquisition of land; (b) grant of prospecting licence or mining lease for minor minerals; (c) grant of concession for the exploitation of minor minerals by auction; and (d) planning and management of minor water bodies.

35. It is pertinent that the spirit behind the provision about mandatory consultation with Gram Sabha or Panchayat at the appropriate levels on subjects like acquisition of land, grant of mineral lease, etc. is that the tribals may own land but they have no control over it and are not able to put it to productive use and they have generally been out-manoeuvred and are losing control over natural resources. In view of this, to safeguard their interests, the consent of the local tribals at village level has been made obligatory. Further, the land to be acquired, mineral resources, water bodies etc. may fall within the jurisdiction of more than one village/block/district. Therefore, to cover this aspect, the phrase 'Panchayats at the appropriate levels' has been used in the Central Act.

36. The real danger thus is that the far-reaching changes introduced in the law will remain a dead letter unless they are translated into action and sustained by a process of awareness and capacity building among the tribal communities. There are a number of grave problems that must be overcome if the law is genuinely to transform tribal reality, but it is important to stress that none of these barriers to tribal self-government is insurmountable.

Checks and Balances over PRIs and Accountability:

37. Under the State laws, wide powers of suspension and dismissal have been vested in the State bureaucracy. This straightaway places Panchayati Raj Institutions in a position of disadvantage vis-a-vis even middle rung functionaries of State Governments. It also takes away the essential characteristic of PRIs as elected representative bodies. In many States, even Gram Panchayats have been placed in a position of subordination vis-a-vis Intermediate Panchayats and so on.

38. A scrutiny of State laws reveals that almost all the State Governments have kept enough powers with themselves to deal with PRIs as far as ensuring checks and balances is concerned. These provisions had existed even before the introduction of 73rd Constitution Amendment Act and had been widely used in different States. However, these provisions have in-built limitations because they directly affect the concept of democratic

Table
Panchayat (Extension to the Scheduled Areas) Act, 1996- Functional Devolution on Panchayats

Sl.	Components	Mandatory Provision	Status
1	2	3	4
1	Definition of Village	A village consists of a habitation or a group of habitations or a hamlet or a group of hamlets comprising a community and managing its affairs in accordance with traditions and customs.	All States adopted this definition except Maharashtra, which is silent on this subject.
2	Status and Functions of Gram Sabha	Every village will have a Gram Sabha which will be competent to safeguard and preserve the traditions and customs of the people, their cultural identity.	All State Acts follow the Central Act. However, regarding customary mode of dispute resolution Andhra Pradesh Act puts a condition 'without detriment to any law for the time being in force'. The Orissa Act adds that it should be consistent with the relevant laws in force and in harmony with tenets of the Constitution and Human Rights.
3	Constitution of Panchayat	Panchayats will be constituted at village level with reservations for Scheduled Tribes in the manner prescribed in Part IX of the Constitution.	Andhra Pradesh and Himachal Pradesh Acts have extended the reservation of elective seats and Chairpersons to both Gram Panchayats and Mandal/ intermediate Panchayats. The Maharashtra Act does not mention it.
4	Acquisition of land for development projects and resettlement of displaced persons	Prior consultation with Gram Sabha or Panchayats at the appropriate level shall be made mandatory	In Andhra Pradesh, Gram Sabhas have no role. Gujarat assigned this power to Taluka Panchayat, however, no provision relating to coordination of such projects at state level. Orissa assigned the power to Zilla Panchayat with no role for the Gram Sabha/ Gram Panchayat
5	Planning and Management of Minor Water Bodies	Entrusted to Panchayats at the appropriate level	Maharashtra Act does not make any mention of it. Orissa assigned power to Zilla Parishad instead of Gram Sabha/Gram Panchayat
6	Grant of Prospecting licence or mining licence or mining minerals	Prior recommendations of Gram Sabha or the Panchayats at the appropriate level shall be made mandatory.	Andhra Pradesh-gives primacy to Gram Panchayat in place of Gram Sabha. Gujarat-does not make mention of it. Himachal Pradesh-retained primacy of Gram Sabha but term 'shall be made mandatory' has been replaced by `shall be taken into consideration'. Madhya Pradesh – No mention in the Madhya Pradesh Panchayat Act but the relevant subject act Mines and Minerals (Regulation and Development Act) 1957 amended to assign powers to Gram Sabha and Panchayats at appropriate level. Maharashtra assigns powers to Gram Panchayat. Gram Sabha has no role in the matter. Orissa gives powers to Zilla Parishad.
7	Grant of concession for exploitation of minor minerals by auction.	Prior recommendation of Gram Sabha or Panchayats at appropriate level shall be made mandatory.	Andhra Pradesh and Maharashtra assigned the function to Gram Panchayat in place of Gram Sabha, Gujarat - No mention of it. Madhya Pradesh - Madhya Pradesh Panchayat Act does not make mention of it but the subject Act Mines and Minerals (Regulation and Development) Act, 1987 amended to assign the power to Panchayat at appropriate level. Orissa- assigned the power to Zilla Parishad.
8.	Enforce prohibition / regulate or restrict sale & consumption of any intoxicant	Panchayats at the appropriate level and the Gram Sabha to be endowed with the powers	All State Acts followed the Central Act except Madhya Pradesh which does not make provision for it in its PR Amendment Act. However, the Subject Act Madhya Pradesh Excise Act 1915 has been amended to give powers to Gram Sabha.
9	Ownership of Minor Forest Produce (MFP)	Panchayats at the appropriate level and the Gram Sabha endowed with the powers of ownership	All State Acts follow Central Act by assigning this power either to Gram Sabha or to the Gram Panchayats

Sl.	Components	Mandatory Provision	Status
1	2	3	4
10	Prevention & Restoration of Tribal Alienated Land	Panchayats at appropriate level and the Gram Sabha to be endowed with this power.	Gujarat, Himachal Pradesh, Madhya Pradesh Panchayati Raj Amendment Acts do not make provision for this. However, in case of Madhya Pradesh, the Madhya Pradesh Land Revenue Code, 1959 has been amended to give power to Gram Sabha.
11	Manage Village Markets	Panchayats at appropriate level and the Gram Sabha to be endowed with this power.	Gujarat and Maharashtra Amendment Acts are silent on this matter.
12	Money lending to the Scheduled Tribes	Panchayats at appropriate level and the Gram Sabha to be endowed with this power.	Madhya Pradesh Amendment Act does not make a mention of this subject.
13	Exercise control over institutions and functionaries in all social sectors.	Panchayats at appropriate level or the Gram Sabha to be endowed with this power.	All State Acts except Madhya Pradesh assign this power either to Gram Panchayat or Panchayat Samiti / Mandal Parishad. The Madhya Pradesh Amendment Act has given this power to the Gram Sabha and the Janpad Panchayat or the Zilla Parishad.
14	Control over Local Plans and Resources including Tribal Sub Plans	Panchayats at appropriate level and the Gram Sabha to be endowed with this power.	State Acts of Andhra Pradesh, Gujarat, Himachal Pradesh, Orissa have assigned the power to Panchayat Samiti / Taluka Panchayat / Mandal Parishad while the Madhya Pradesh and Maharashtra Acts assign this power to Gram Sabha.

decentralisation on the one hand and the autonomy of the PRIs on the other.

39. Another important aspect of the administrative restructuring process is the merger of District Rural Development Agencies (DRDAs) with Zilla Parishads. In the light of the 73rd Constitution Amendment Act, DRDAs need to be restructured to suit the changed scenario. They should work under the overall control and supervision of the Zilla Parishads. In the States of Karnataka, Kerala and Madhya Pradesh, DRDAs have already been merged with the Zilla Parishads. In Himachal Pradesh, Orissa, Rajasthan, Uttar Pradesh and West Bengal, the Chairman of Zilla Parishads is also the Chairman of the DRDAs. However, Maharashtra has expressed its reservation to the merger of DRDAs with the Zilla Parishads. Andhra Pradesh also is not in favour of a DRDA- District Panchayat merger. . In Andhra Pradesh, the District Collector is the Chairperson of DRDA whereas Chairperson of District Panchayat its Vice-President.

40. Instances have been reported where the Gram Panchayat Sarpanches have to spend a good lot of time visiting Block Offices and of harassment by Block level officials. Systems which require Gram Panchayat Pradhan / Sarpanch to approach Block office for funds and/or technical approval need drastic change. Village bodies should be able to spend funds on their own without having to take technical approval from government officials. These interactions with Block staff distort the role of Pradhans as elected representatives of the Gram Sabha and induct them into bad old ways of officialdom and also encourage corruption.

Sustainability:

41. The Constitution Amendment Act itself has certain provisions, which adversely affect the sustainability of these institutions. For instance, while there are reservations for women and scheduled castes/scheduled tribes, these seats are to be allotted by rotation to different constituencies. In practice, this implies that a woman or a scheduled caste/tribal elected to a panchayat will normally have a term of five years, with no prospect of re-election (In Karnataka the term is only for 20 months). This goes against the spirit of democracy as people work hard for their constituencies in the expectation that they would be returned to power in the next elections. The existing provisions provide no incentive for the elected persons to deliver on their promises; on the contrary, self-interest would dominate, with little concern for the community at large.

42. The three tiers also compete for funds and powers. The lower tiers are normally the losers in this process. This would make decentralised development, within a district plan, infructuous and non-sustainable. It is imperative in the given framework that the state legislatures clearly delineate the work to be done by each of the three tiers in each of the sectors which fall within the purview of panchayats, in order to ensure that the panchayats at the village level can be effective institutions for local governance.

Transparency:

43. Empowerment of Gram Sabhas would require

efforts at mobilisation of the village community for mass participation in meetings of the Gram Sabha. Further, a massive awareness generation programme needs to be taken up to inform Gram Sabhas about their rights in planning, implementation and audit of development programmes and in control over natural resources, land records and conflict resolution.

44. In Madhya Pradesh development works of PRIs are subjected to social audit. For instance, works under Jawahar Gram Samridhi Yojana (JGSY) (old JRY) are exempted from evaluation by technical personnel. Now, instead of Junior/Sub Engineer, Sarpanch moves the Gram Sabha to get an expression of its satisfaction with the quality and utility of the Project. Gram Sabha certifies the utilization of expenditure; only if the Gram Sabha refuses to do so can the competent authority under the Act (i.e. Sub-Divisional Officer) get the evaluation done by a Committee consisting of a Panch, a sub-engineer and social worker from the area. Social audit is not only limited to development works. An expression of dissatisfaction of the Gram Sabha about the PRI performance in individual beneficiary programmes leads to an inquiry by the competent authority through a Committee. Further 'Right to Recall' of elected representatives at the Gram Panchayat level has enhanced the accountability and transparency at the village level.

45. A key to the success of the Panchayati Raj system is transparency in the way these bodies function. Being closer to the people, the Panchayats' right to information — and accessibility to the Panchayats — must be ensured. Central Government circular in 1997 proposed that each State may consider passing orders highlighting three different aspects of transparency.

46. First, the Panchayati Raj Institutions, especially Gram Panchayats, should display all vital information about development projects (especially receipt of funds and how they are being spent) in the Panchayat Offices or on a prominent board outside the village school for the information of the public.

— Second, all relevant records should be open to inspection.

— Third, members of public should also be able to obtain photocopies of documents related to development projects as also matters of general public interest by paying a nominal charge. Such documents would extend in particularly to all bills, muster rolls, vouchers, estimates and measurement books as well as information about the criterion and procedure for selection of beneficiaries. A list of beneficiaries should not only be available for inspection, but photocopies of it should be given on demand from a convenient place such as Block or Tehsil Office.

Accountability

47. To what extent are the village panchayats accountable to the common people and looking after public interest? Do the ordinary masses feel involved and participate? A detailed field study of several village level Panchayats in Uttar Pradesh indicated that these objectives were only being partially met. Excerpts from the study are quoted below:

48. Even two years after the new legislation imbued the panchayats with responsibility for developmental functions (albeit with an instrumentalist orientation) listed in the Eleventh Schedule, no substantive changes have occurred in the nature or extent of financial devolution or bureaucratic control.

49. In the formal sense, therefore, panchayats have had a limited but important role in the various stages of planning and implementation of several developmental programmes, especially anti-poverty programmes. However, there is no evidence from the study that the gram sabhas have been involved in any of the roles assigned to them, even though on occasion a rare meeting of the Sabha has been held under some external compulsion. For practical purposes, the panchayat is identified with the office of the Pradhan and the role of the Pradhan is itself subsidiary to the bureaucratic functionaries. The poor respondents mention periods when enlightened Pradhans or even bureaucrats have been able to accelerate the implementation of these programmes or have been able to steer them more firmly in the direction of the poor. Generally, however, this is not the case. Benefits from programmes accrue to a group of people who are close to the Pradhan or the official machinery. Some of them acquire multiple benefits.

50. In the opinion of the villagers, devolution as implemented, may not have brought about development, but it has on the other hand reinforced the unequal access to power. References to the works are often accompanied by sneering remarks about the money which has gone down the drain, or has disappeared into the pocket of the pradhan and the block officials. Much of what comes from the government, they feel, is snatched away by the important people.

51. However, the same study concludes: "This rather negative assessment of omissions and commissions should not lead us to the conclusion that panchayats and local level planning have lost their attractiveness for the villagers. On the contrary, our survey of 397 villagers

showed that an overwhelming 80 per cent of all respondents feel that the responsibility of village level development should be reposed with panchayats (84 per cent males; 77 per cent females). Only 9 per cent respondents (13 per cent males and 5 per cent females) thought that the Block should be responsible. Of the respondents, when asked to choose between a variety of arrangements for evolving and implementing schemes and programmes at the village level, 79 per cent favoured stronger panchayats but with more accountable pradhans and 17 per cent favoured stronger panchayats and stronger pradhans. The verdict was clearly against the Block Development Officers who received only 4 per cent support.'

52. Village panchayats are involved in selection of beneficiaries for various Rural Development (RD) programmes. Out of a total number of 95 beneficiaries in a panchayat of Rajasthan between 1995/96 to 98/99 it was found that only 50 (52%) were identified as belonging to vulnerable categories. Thus at least in half of the cases benefits flowed to undeserving cases.

53. From these studies, it appears that though the ordinary village people feel optimistic about the potential of panchayats, they think that it has not brought the fruits of development to them. Corruption is singled out as the most important cause for the ineffective functioning of these institutions. Control which is exercised by the Sarpanch and Block Level officials over Village Panchayats and Gram Sabhas has not only buttressed corruption, but it has also led to pessimism that villagers on their own and at their level cannot change or improve things because of heavy dependence on elected functionaries and Block officials. The present system is, therefore, seen to have actually reinforced dominance and unequal access to power, besides rendering the villagers helpless and alienated.

Centrally Sponsored Schemes and Panchayati Raj Institutions

54. There is a plethora of Centrally Sponsored Schemes (CSS) being implemented by different Ministries and Departments of Central Government. As per the Constitutional mandate, in respect of 29 items of the Eleventh Schedule, funds have to be devolved on the Panchayati Raj Institutions for planning and implementation of schemes pertaining to the particular sector. In reality the involvement of Panchayati Raj Institutions with respect to these 29 items has been minimal in most States. They continue to be implemented departmentally.

55. In so far as the programmes of the Ministry of Rural Development are concerned there is some involvement of the PRIs in the implementation, monitoring and review of their programmes. However, in respect of CSS implemented by other Central Ministries, the involvement of PRIs is either non-existent or minimum.

Parallel Organisations and PRIs:

56. In some sectors there is people's involvement through parallel institutions like the Joint Forest Management (JFM) Committees, Village Education Committees (VEC), Water User Groups, etc. It is argued that a multiplicity of committees is a means of getting more benefits from the Government. The villagers see this as an opportunity to ensure the development of their villages through involvement of a large number of government departments. The bureaucracy too favours these committees as it is able to have a greater say in the implementation of the programmes through these committees. Committees also create a broader leadership base and provide an opportunity for more people to be involved in decision making through membership. The panchayats have to address several issues at the same time making their work onerous. Committees focussing on specific issues, be it education, health or forest management, would be able to take note of the specific objectives of the programme and deliver better results. It is expected that in the long run members of these committees would also get elected as members of the panchayats. The panchayat could act as coordinator for implementation of these programmes. In other words, though the link between these committees and the panchayats is somewhat tenuous, these parallel institutions are imperative for ensuring greater people's participation in the development process. Over time, the relationship between these people's institutions and the panchayats will become stronger.

57. Those on the side of panchayats would argue that benefits from user committee- managed natural resource projects, such as forests and watershed management, are not sustainable in the long term. After the source of funds from the project dries up, plantations disappear, committees are disbanded or abandoned and the livelihood base of the poor remains only marginally improved, if at all. Perhaps in

Table-2

Vulnerability status of households benefiting from housing and loan schemes in a Panchayat in Dungarpur district

Vulnerability status	Number of households
Not at all vulnerable/ Very secure livelihood	20
Not vulnerable/ Livelihood secure	25
Vulnerable	27
Very vulnerable	23
Total	95

some cases they create some sustainable social capital by raising awareness amongst the poor. However evidence suggests that most of the social capital created by projects is held by the rich and that in fact most projects have contributed to a further entrenchment of powers of the rich. Part of the reason given for involvement by Non Governmental Organisations (NGO) is to ensure the sustainability of the project by threading it into the fabric of local social and economic structure. Some NGOs have ensured the sustainability of some projects by creating participatory development and negotiating conflicts before leaving the village. This approach takes time and needs resources; hence the question of how to 'scale-up' this process to cover wider areas. Further, these success cases are drops in the ocean and they are not problem-free either. A respondent from RDT, an NGO in Andhra Pradesh, commented that there are a few villages in which the committees have the capacity to become partners of the government for development. But 60% of the institutions are not democratically elected. Another study of natural resource management projects found that after NGO support ranging from 7-12 years, 'the social organizations or community groups involved do not appear to have reached the stage yet where external support – whether operational or 'institutional' – is no longer required'.

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58. Therefore in the light of conflicting arguments on both sides, there is need for a study of the institutional links between political decentralization through Panchayati Raj and administrative decentralization in the form of user committees promoted by the external donor projects. This is important because in several development projects (e.g. drinking water, health, watershed development and primary education) government has relied upon committees which are independent of panchayats. Often in the same region such as Uttar Pradesg hills, the World Bank has promoted different committees, one for forests, a second for drinking water and a third for education and all these may be all distinct from panchayats!

59. Thus the present approach through user committees raises several questions about the links that exist and should exist between those committees and the PRIs: What should the role of PRIs be once natural resource management programme becomes a broad rural development effort rather than a narrowly technical programme? Should PRIs not be involved in coordinating these issues? Reasons are many to suppose that this would ensure the sustainability of development programmes.

60. First, they are responsible for development planning for the whole Gram Panchayat and would be the natural apex body for linking several development programmes into other objectives. Second, they are democratically elected and so reflect local needs and priorities.

61. A third critical issue is that it will be more cost effective for PRIs to be the apex linking body being one already so established for this function. The infrastructure is already there; they have the power to raise revenue; and labour will be cheaper.

62. At the same time it must be recognised that at present there appears to be greater satisfaction among the people from user committee-based administration than with panchayats. That such groups are smaller than the panchayats and function on consensus than legal authority could be one factor. Here below are results from a study in Madhya Pradesh and Rajasthan on this.

Results of a field study from Rajasthan and Madhya Pradesh

63. In three Panchayats in Dungarpur district, Rajasthan, a study was carried out to know what value people attribute and how they rank Panchayat as a local development body in comparison with other development activities in the villages. A cross-section of twenty villagers in each Panchayat were asked individually to rank development activities in their village based on which one they thought was "better". [1] The outcome of the exercise in two Panchayats is presented Panchayat- wise[2] in Table-3.

64. Table-4 would show that the Panchayat is not seen as a very valuable organization by villagers; the main reason is perceived lack of individual benefits, also lack of transparency and lack of influence and a high presence of corruption. People place much higher value on other development activities which bring a larger number of individual benefits and are more transparent. In tribal Dungarpur district two women described the difference between participating in the women's savings group and the Panchayat:

"The savings group has a purpose. All women meet to deposit money and to decide on who can take loans. We will get benefits. There is no work for the individual in the Panchayat, and especially not for women. What will we gain from participating there? Whether we go or not does not make a difference."

Conclusion

65. Consequent to the 73rd Constitution Amendment Act political decentralisation has taken place in almost all the States where elections have been held. However,

progress on fiscal and functional decentralisation has been mixed. There are States which have taken steps to devolve funds, functions and functionaries to the PRIs. The process of devolution is at different levels of operationalisation across States. Surprisingly, the States of Kerala, Madhya Pradesh and Uttar Pradesh who have had little experience of decentralisation, have made the most fundamental changes in this regard. Further, it is imperative that the PRIs have resources to match the responsibilities placed on them. While State Finance Commissions have submitted their recommendations, very few States have taken the necessary steps to ensure fiscal viability of the PRIs. Yet, one can be hopeful that the experience of some States and some PRIs within States would provide the necessary impetus for greater devolution in other parts of the country.

Table-3

Ranking the value of different development activities in a Panchayat in Dungarpur District, Rajasthan

Activity	Score@	Most common explanations
Participatory Approach to Human and Land Resource Development (PAHAL)@@	33	All villagers get benefits in terms of labour. Land is developed to become more productive. A few people also mentioned that the transparency is high compared to other development activities.
Shiksha Karmi and Lok Jumbish - education#	47	Education is perceived to be the gateway to the future. Uneducated people have fewer possibilities.
Women's savings group##	66	Savings enable productive investments in assets of own choice (e.g. wells, land-leveling, livestock)
Farmer's Cooperative Society$	8	Loans are provided that enable investments in crops. (Members are mostly larger land-holders).
Gram Panchayat	92	Individual benefits are few. Little transparency and corruption is high. Exception: One man said that it is a permanent structure and therefore valuable while other development activities are temporary.

[1]No further direction were given of "better", but people were instead encouraged to explain their understanding of why some are better than others.

[2]The data from the third Panchayat was almost indentical to the second and has therefore been left out.

@ The score was arrived at by calculating the average of the 20 informants. The lower the score, the higher the value of the activity. No differences were found in ranking on the basis of gender, social group, education etc.

@@ PAHAL is a Government of Rajasthan's integrated land use management project located in Dungarpur district. It was funded by Swedish International Development Agency (Sida) till October 1999.

These projects are both aiming to spread and improve primary education in Rajasthan. Financial support was provided by Sida till 1998.

This was launched by an NGO, PEDO, in Dungarpur district. The project currently involves approximately 100 women's savings groups. The objective is to decrease dependency on money-lenders and enable women to make investments of their own priority.

$ Throughout India various cooperative societies and banks provide farmer members with short-term loans. The aim is to increase the capacity of farmers to make crop investments and ultimately increase agricultural output.

Results from a similar exercise in Ujjain district, Madhya Pradesh, are summarized in Table-4.

Table -4

Ranking the value of different development activities in a Panchayat in Ujjain district, MP

Activity	Score#	Most common explanations
Rajiv Gandhi Watershed Mission – land development $	44	Many people got labour. Private land and village tanks were developed. Transparency is high. People can take part of decision-making
Farmer's Cooperative Society	65	Provides loans at a crucial time when crop inputs need to be purchased.
Gram Panchayat	90	Few individuals benefit. It is for the benefit of the elected representatives. There is no justice in selection of beneficaries or prioritization of community works

@ The score was arrived at by calculating the average of the 20 informants. The lower the score, the higher the value of the activity. No differences were found in ranking on the basis of gender, social group etc

$ This is a national scheme aiming to improve watershed management

CHAPTER 11

URBAN DEVELOPMENT, HOUSING & POVERTY ALLEVIATION

Urban Development

Past five decades have witnessed a phenomenal growth of urban population in India and the addition every year has been about 7 to 8 million people. The level of urbanisation was 11% to 12% in first three decades of the 20th century but it surged noticeably from 17.3% in 1951 to 25.7% in 1991. The major urban concern is the growing gap between the demand and supply of basic infrastructure services like safe drinking water, sanitation, sewerage, housing, energy, transport, communication, health and education. Increased urbanisation is accompanied by severe environmental problems which adversely affect the quality of life of the people. In view of above an integrated urban management policy incorporating different facets like development planning, resource mobilization, capacity building, responsive administration etc. is a key concern.

2. Though India has one of the largest urban systems, its effectiveness is far from satisfactory due to paucity of funds and ineffective management. The Constitution (74th Amendment) Act,1992, envisaged effective decentralisation of the functions to the Municipalities, and State Governments were to spell out the functions to be assigned to the Urban Local Bodies (ULB) through notification under the provisions of Municipal Acts. However, in many States such notification has either not been issued or, if it is issued, it provides inadequate functions and responsibilities to ULBs. There has been an urgent need for the State Governments to transfer the functions and responsibilities to the ULBs as envisaged in the 12th schedule of the Constitution as also to ensure that the Legislature provides for such laws that can authorise the municipalities to levy, collect and appropriate taxes and duties to augment the revenue/resources of the ULBs which today are only dependent on government grants. Though Finance Commissions have been constituted by most of the State Governments to review the principles that govern determination of taxes, duties and grants-in-aid to the municipalities, the position of most municipalities have hardly shown any improvement. It is observed that resources raised by the municipal authorities constitute barely 0.6% of the national GDP and, therefore, still remain peripheral to the Indian economy. Revenue from non-tax sources has been lagging behind. Dependence of municipal authorities on external sources has been increasing coupled with corresponding decline in the internal revenue from own sources. To improve the quality of urban governance, it would be necessary to ensure that all follow-up action on the 74th Constitutional Amendment is pursued in letter and spirit.

3. Urban growth, mostly uncontrolled and unregulated, has been far away from systematic development planning. Whereas the First Five Year Plan recognised the importance of regional planning, provision for use of land and civic and diagnostic surveys and preparation of Master plans, the Second Plan stressed the need for developing competent municipal administrations with adequate powers, resources and administrative and technical staff and the use of local authorities as agencies for providing housing and other infrastructure amenities. Regional and urban development was accorded priority in the Third Plan when almost all States had introduced town planning registration with varying scope. However, the plans could not be implemented due to lack of financial and organisational resources, except by a few metro cities and a few towns. Although a significant step was initiated in the form of Central assistance to the States for the preparation of Master plans for select areas, comprehensive action on the part of the States was lacking. During the Sixth Plan relative potentialities of small and medium towns were recognised. The Seventh Plan reiterated the policy of earlier plans to promote smaller towns and new urban centres supplemented by efforts to augment civic services and strengthen municipalities by augmenting the resources and by a system of devolution of funds and provision of new avenues of taxation.

4. To augment civic services and strengthen municipalities, a new scheme of Integrated Development of Small and Medium Towns was initiated by the Central Government during 1979-80. Up to March 1999, 945 towns were covered involving Rs. 345.30 crore. The outlay for the Ninth plan is Rs 275 crore. The implementation of the scheme has not been satisfactory and the areas of concern include timely completion of projects, augmentation of resources by ULBs for continued investment, creation/ consolidation of Revolving Fund, utilization of available funds, tie-up of institutional finance, viability of the implementing agencies, convergence of stakeholders etc. There is a need for evaluation of the implementation of the scheme so as to realize the envisaged objectives. In addition, the Ministry has brought out certain issues for reconsideration e.g. laying down a criteria for prioritisation of projects; review/ modify if needed the existing project mix ratio; strengthening of building capacity of personnel involved in implementation of the

scheme; ensuring more flexibility and decision- making powers for any change in the components or areas within the project to State level sanctioning committees.

5. The National Institute of Urban Affairs, vide its evaluation study in a sample of 22 towns, observed that the impediments in implementation broadly are non-availability of land, absence of technical/feasibility studies, and lack of inter-agency coordination/ monitoring. The salient points brought out by the Society for Development Studies on the basis of its study in four towns of Madhya Pradesh were lack of professional approach to the selection of the project components, site location, systematic demand assessment, poor monitoring besides problem of land availability and convergence of all urban development programmes. Similarly, the Centre for Symbiosis of Technology, Environment and Management, through its impact evaluation of Integrated Development of Small and Medium Towns (IDSMT) scheme in Uttar Pradesh and Karnataka, concluded that land acquisition and lack of technical staff in the local bodies delayed the implementation of projects.

6. Megacity scheme was launched by the Central Government in 1993-94 in order to upgrade the infrastructural facilities in the mega cities which comprise about 17% of the urban population. The scheme was applicable to five cities of Mumbai, Calcutta, Chennai, Hyderabad and Bangalore. Up to 1999-2000, 375 projects involving Rs. 3,089.78 crores were sanctioned. The outlay for the Ninth Plan is Rs. 500 crores. Though various projects are being taken up under the scheme, many of the problems in the implementation are observed to be common to that of IDSMT. In addition, identified areas requiring attention include high rates of interest charged by Financial Institutions (FIs), the desirability of retaining 75% of Central and State share in the Revolving Fund and the manner of its utilization, the formula for allocation of central share of funds among the five Mega cities, use of land as a resource and the concept of generation of funds via commercial projects which are divergent among States, etc.

7. It has been observed that a comprehensive overhauling of the implementation of the schemes of IDSMT and Megacity is to be considered keeping in view, among other factors, the outer limit of the city's capacity to absorb expansion. Also, to realize the efficacy of the schemes the State Governments may explore ways and means of rationalising the tariff structure for the amenities made available to the beneficiaries as one of the ways to strengthen the resources of ULBs for sustainable development of infrastructure. Despite the divergent problems faced in the implementation of the Megacity projects, a good initiative has been taken by the Government of Andhra Pradesh in the direction of raising revenue by using Government land as a resource.

> Hyderabad Urban Development Authority (HUDA), is a planning body constituted in 1975 by the Government of Andhra Pradesh. The State Government has permitted HUDA for disposal of Government land in public auction to raise resources for taking up projects like roads, fly-overs etc. in the urban areas. The resources thus raised have also been utilized as State Government's matching contribution for Megacity projects.

8. With a view to containing the pressure on population on Delhi and to attain balanced and harmonious development of Delhi and adjoining areas of the neighbouring States, the National Capital Region Planning Board (NCRPB) was established about fifteen years back. The NCR is spread over an area of 30,242 sq. km. comprising NCT Delhi (1,483 sq.km), Haryana (13,413 sq.km), Rajasthan (4,493 sq;km.) and Uttar Pradesh (10,853 sq.km.). An outlay of Rs. 200 crores has been earmarked for the Ninth Plan as contribution to NCRPB.

9. The NCRPB has identified certain areas in support of its vision of NCR as a Common Economic Zone (CEZ) which requires a consensus by the member states on rationalisation of fiscal measures, banking system, integrated transport and communication system which influence trade, commerce and industrial activities in the region. Other important measures include phasing out of trading activities like fruit and vegetable marketing outlets including go-downs and storage facilities, all large manufacturing units as well as hazardous industries etc. out of Delhi. There is also the need to encourage the farmers for establishment of their own 'mandis' in the periphery of NCT.

10. The concept of NCR Delhi has not succeeded. Some of the key reasons ascribed are sanction of a large number of projects without any co-relation to availability of funds, slow progress in completion of schemes, prioritisation of projects, re-delineation of area, involvement of different stake holders/lack of coordination within the States, inadequate provision in the outlays by the Central Ministries and the participating States, and lack of common interest within the States and among the member states. Though information on releases made by the NCRPB is available, the progress of progress of expenditure by the participating States and of Central Ministries is not known.

11. Keeping in view the haphazard growth of cities and towns over the years, a scheme for preparation of base maps using aerial photography was launched in the Eighth Plan on a pilot basis for effective urban planning.

The Central Town and Country Planning Organisation (TCPO) in collaboration with the concerned State Town Planning Department is undertaking interpretation of aerial photographs and collection of other secondary data/ information. This is done to generate thematic maps and graphic data base for the development of Geographical Information System (GIS) and processing of information for use of town planning departments, local bodies, development authorities, PWD, tax authorities and other sectoral development agencies. The scheme was initiated to cover 50 towns in two phases. An allocation of Rs. 10 crores has been made in the Ninth Plan. Recent reviews held with the State Governments indicated their desire for areas being covered by the urban mapping programme undertaken by the TCPO. Now that high resolution satellite remote sensing technology is available, the Planning Commission would suggest that the scope of the scheme may be widened to include areas like drainage, sewerage, low cost sanitation , urban waste management etc.

12. As cities grow in population and size, the demand for transport services both public and private (chartered, permit holder buses/ mini-buses, cooperative- run buses etc) increases more than proportionately. The number of vehicles increased from 5 million at the end of the Third Plan to 32 million in 1996. As the increase of public transport system with associated infrastructure did not progressively increase to the desirable extent, people switched over to personalised modes, which resulted in accidents, over-crowding/ overloading in public transport system, creating serious health problem and environmental degradation. There is need for a re-look on liberalizing the existing laws relating to issue of license/ permit for public/ private transport vehicles. Also in view of increased vehicular traffic and accidents there is need to look at the requirement for establishing professional driving training institutes for public transport drivers. Further, the transport network suffers due to factors linked to it like requirement of land, increased land values, relocation of families especially its impact on the livelihood of the urban poor, community facilities etc. However, in spite of the crucial need for efficient urban transport system, commensurate allocation for this sector has been conspicuously missing both at State and Central levels. Treating this as a concern of State/Local governments urban transport is looked upon as an appendage to the inter-city rail/road transport systems and perhaps its own need and priorities have not been recognised. Though Central assistance has been mainly confined to support for various feasibility and other studies relating to urban transport systems in metropolitan cities, urban transport development (a crucial component of urban infrastructure) needs to be accorded a much higher priority than has been the case in the past. An integrated urban transport system particularly for the metropolitan cities should involve the Centre, States and ULBs and also the private sector.

13. The only major Central scheme under way since 1996 is the Delhi Mass Rapid Transit System (MRTS) project executed by the Delhi Metro Rail Corporation (DMRC) Ltd. It involves Rs 4,860 core (at April '96 prices) The project envisages introduction of a Metro Rail System of about 55.3 km. comprising 11 km. of underground rail corridor and 44.3 km. of elevated–cum-surface rail corridors. An amount of Rs 362.22 crores has been kept as EAP– Pass through assistance to DMRC from OECF (Overseas Economic Cooperation Fund of Japan) and Rs. 425 crores as equity to DMRC for the Ninth Plan.

Urban Housing

14. Increasing population, rapid industrialisation and regional development are major factors that have aggravated the housing scenario over the years. Even in the early 'fifties, lack of employment opportunities in rural areas and growth of industry in urban areas made for a high rate of migration from rural to urban areas and led to a high demand for housing in the urban areas. On the supply side, the private sector, the primary source of building activity, was constrained due to low availability of land and high prices of building material. Consequently, the gap between demand and supply of housing led to over-crowding and deterioration of housing estates.

15. While accepting that housing is essentially a private, self-help activity, Government has recognised the necessity for state intervention to meet housing requirements of the weaker section of society. This was outlined in the Housing Policy from the First Plan itself when housing for Low and Middle Income Groups was given a high priority. Since State Governments were to provide assistance to households in the form of subsidies and cheap loan, the Central Government initiated the Industrial Housing Scheme to cover workers of certain industries and took initiatives to reduce the prices of building materials as also to encourage private builders. In the Second Plan, housing programmes of the First Plan were expanded and new schemes viz, Slum Clearance and Sweeper's Housing and Middle Income Group Housing were introduced. The Third Plan emphasised on coordination of efforts of all agencies i.e. public, private and cooperatives as also on re-orienting the programmes to the needs of Low Income Groups (LIGs), land acquisition and development, preparation of Master plans and regional development plans of metropolitan towns and research in building techniques. The Fourth Plan stressed on controlling land prices, providing financial assistance to cooperatives and private efforts and in assuming legal powers to recondition slums. The Fifth Plan gave emphasis to preservation and improvement of existing housing stock through statutory/ legal, regulatory and fiscal measures and stressed on the optimum use of land, making available

land for housing purposes particularly for Economically Weaker Section (EWS) as also to prevent concentration of land ownership. During Sixth Plan, public sector was assigned promotional role in urban housing whereby the role of providing majority of housing was left to private sector. The role of public sector itself was limited to slum improvement, housing for urban poor and encouragement of organisations like Housing and Urban Development Corporation (HUDCO) for channelising resources to private sector.

16. The Seventh Plan clearly demarcated the role of public sector viz resource mobilisation, provision of subsidised housing for poor and land acquisition and development. The National Housing Bank (NHB) was established in 1987 and HUDCO in 1970. To provide an appropriate platform for technology transfer and its application in the shelter sector and promote commercial production of innovative materials, the Building Materials and Technology Promotion Council (BMTPC) was set up with a network of Building Centres. Experimental housing projects were undertaken by National Building Organisation (NBO) in different geo-climatic conditions and Non Governmental Orgnanisations (NGOs)) were involved in supporting the Government effort.

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17. The core strategy of the Eighth Plan was to create an enabling environment for housing by eliminating various constraints and providing direct assistance to disadvantaged groups. Emphasis was laid on removal of legal bottlenecks to increase supply of serviced land and rental housing, increase formal flow of finance for housing sector and encourage self-help housing as well as finance. To provide housing to the disadvantaged groups, special assistance programme in the form of subsidy, preferably in kind (i.e. in terms of raw materials), differential rates of interests and delivery support system were evolved. Despite the introduction of housing policies and programmes, the problem of urban housing continues to exist. As per NBO, the urban housing shortage is projected to decline from 7.57 millions in 1997 and 6.64 millions in 2001. Yet another estimate (Habitat-II) indicates that the urban housing shortage would in fact increase to 9.4 million.

18. The housing policy 1994, laid emphasis on assisting people and in particular the houseless, the inadequately housed and vulnerable section. Keeping in view the requirement of large investments to overcome enormous shortages in the housing sectors and the need for more concerted and focused attention on the poor and the deprived, the policy was revised in 1998 to encourage private and cooperative sector participation in this sector. The ultimate goal of the new Housing and Habitat policy (1998) is to ensure the basic need, "Shelter for All". The thrust is directed towards housing solution of priority groups, SCs/STs, disadvantaged groups like the disabled, freed bonded labourers, slum dwellers and households headed by women and people below poverty line — groups whose needs otherwise may not get effectively met by market driven forces.

19. Keeping in view the objectives of the new Housing and Habitat Policy and shortages in the housing and related infrastructure, the strategies adopted in the Ninth Plan are as below:

(i) While housing needs of all segments will have to be met, the Plan would focus special attention on households at lower-end of the housing market and the public housing. The thrust is directed towards housing solution of priority groups whose needs otherwise may not get effectively met by market driven forces; (ii) Government will, as a facilitator, create an environment in which access to all the requisite inputs will be in time, in adequate quantum and of appropriate quality and standards; (iii) There will be provision for more direct intervention by the Government in the case of lower segments of the housing market and selected disadvantaged groups; (iv) A package of incentives and concessions to attract private sectors would be introduced to shoulder the task of housing for the poor; and (v) Land market reforms will be undertaken through legal, planning and fiscal provisions.

20. Apart from the problem relating to availability of land, there are constraints on the investment required for meeting the demands of housing shortage. Whereas the Working Group on Housing placed the estimate of investment at Rs. 1,21,370 crore during the Ninth Plan, there are other estimates placing this at Rs. 79,830 crore (Habitat II estimate). In addition to the investments from Cooperatives and private sector, the Public Sectors (HUDCO & NHB) have also been contributing substantially to the promotion of housing activities. However, the contribution from cooperative sector has not been substantial in certain areas. Within the State Governments, various agencies/government departments appear to be handling activities relating to housing e.g., rental housing, police housing, judicial housing etc. To effect better coordination and supervision, it would be useful if such activities are brought under a single agency especially as there is no formal system for collecting information with regard to urban housing. Very often, built-up houses remain unoccupied due to poor location and absence of basic urban infrastructure facilities and this is further compounded by inadequate public transport facilities. To make housing activity sustainable, new strategies have to be devised.

21. In Delhi, the DDA (Delhi Development Authority) is playing a role in land development, distribution and construction of houses. DDA has not promoted private sector housing complexes whereas in neighbouring States (UP and especially Haryana), many private developers have come up bringing in the element of competitive pricing in building activity. It has also been observed that there has been lack of coordination between DDA and other Development Departments under NCT Delhi resulting in houses remaining unoccupied — among other reasons – due to absence of basic infrastructure amenities like drinking water, sanitation facilities, electricity, etc. In tune with the Policy statement of the Government on housing, the Planning Commission is of the view that Government should move away in phases from direct involvement in construction of houses and concentrate more on development and distribution of land. In order to benefit the poorer sections, emphasis should be on ensuring availability of land to them.

22. Established in 1970, HUDCO over the last few Plan periods has contributed to the housing stock. However, an analysis of the data available would show emergence of regional imbalances. A large number of States are unable to access funds from HUDCO. Bottlenecks for balanced housing activities in the States arise from non- availability of land and the incapability of the States to conform to the terms and conditions/ procedural problems (e.g., government guarantee, etc.), which are obligatory before funds can be accessed from HUDCO. It is also observed that there is gap between target and sanctions, sanctions and release, release and utilisation as also utilisation and recovery of loans.

The Urban Poor

23. Urban poverty, even though more starkly visible to makers of policy, would appear to have engaged governments in India far less than rural poverty, both in the range of interventions and in scale of financial outlays. It remains, for the most part, an area of significant and persistent neglect in public policy, despite evidence of burgeoning urban populations with stubbornly high levels of both absolute and relative poverty.

24. Nearly 93 per cent of the labour force comprising roughly 290 million comes under the informal sector. It is this vast disparate workforce of self employed, casual, contract and migrant workers, present both in rural and urban areas, that keep the engine of Indian economy greased and running. They present the authentic picture of working India - the workers who are concentrated in the agricultural and handloom industries, the home-based industry, the construction industry, fisheries, small manufacturers, agricultural labour, forests and others. In this huge army, more than half are women and, a significant section, children. In spite of all odds, the unorganised sector workers have been struggling to organise themselves. The last 20 years have seen many small but courageous organizations struggle for better living and working conditions for their members. They feel the need for representation and support at the policy level.

> Delhi has about four lakh rickshaw pullers and three lakh vendors. But the city government has put a limit of one lakh licensed rickshaws. Thus, about three lakh rickshaws operate illegally in Delhi. A vast majority of street vendors have no license either. They all operate outside the legal economy, complaining of harassment by police and municipal authorities. The licence-permit raj is seen entrenched in areas where the poor earn their livelihood. About 80 per cent of the respondents in a survey say that they have not experienced any change in economic policy.
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> The alternative is low cost housing. Urban planners are however do not take into account the basic economic reality of migration. One hardly comes across a planner who takes pride by developing planned squatment and even low-income rental housing. The urban managers in turn hardly provide accessibility of the poor to basic urban services like potable water supply and sanitation. Urban planners and managers may need to be educated and trained to acquire knowledge and skill to change the existing order and help the poor and their settlements.

25. Lack of transparent rules - The poor often have neither the capital, nor credit nor the enterprise to set up shops, and eke out a hand-to-mouth existence as street vendors, especially in urban areas. They live in constant fear of being forcibly moved away. Street vendors cannot vend without a licence and yet there is almost a blanket ban on the issuing licence. In recent times, judicial intervention especially in Bombay and Delhi has played a significant role in asking municipal authorities to demarcate hawking and no-hawking zones but the executive reaction is slow to act on the court rulings.. In a few cases authorities have demarcated the no-hawking areas, but the areas which are to be reserved for hawking have not been delineated. Not only does the process need to be expedited in areas covered by the court decisions but a similar exercise needs to be systematically undertaken in all urban areas.

26. Urban migrants pushed to the city by abject rural poverty and unemployment have no legal access to house-sites or sites to establish temporary petty business activities. They are therefore criminalised by the very processes of survival. There should be careful earmarking of sites for urban poor migrants close to potential work-

sites and land allotted to homeless migrants by a process free from bureaucratic tangles. Equally, sites for temporary lease for petty commercial activities should also be developed in all potential and existing commercial centres, and these should be available to the rural poor on realistic terms. The process of getting ration card made is cumbersome and poses the most severe problem to migrant labour. This may be replaced with an identity card which should be issued on asking.

27. Homelessness itself is perceived in India to be a crime. Wandering persons (vagrants), wandering lunatics, 'illegal' squatters, pavement dwellers: they all are 'guilty' of violating several penal statutes. A large numbers of the homeless are routinely rounded up by the police.

28. Urban slum dwellers are not entitled to water or light connections unless they have a legal title to the land. Since most of them are forced to be encroachers, they get caught up in a vicious cycle of degraded living conditions without minimal facilities. It is reported that goons-dadas have emerged in large scale and they act as go-betweens with corrupt officials.

Housing for the Poor

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29. Another area of concern is the lack of a suitable strategy to deal with the housing problems for the socially disadvantaged group as also those engaged in the informal sector. A focused attention is needed for evolving a State-specific strategy including structured housing programme for urban poor to prevent growth of slums and for rehabilitation of existing slums. Despite the fact that 32% of the urban population live below poverty line, a shelter/.housing programme in urban areas for this category does not find a place in State outlay (Urban Housing). A change in the housing strategy for this group of people may help reduce the proliferation of slums. A perusal of the Plan outlay of States and schemes run with the support of agencies like HUDCO and State Housing Boards would show there is no conscious planning of an affordable land and shelter policy for this section of urban population below the poverty line.

> Government of Karnataka started implementing recently a programme "Sites Under Ashraya Scheme in Urban Areas". Under the scheme plots are formed and distributed free of cost to persons living below poverty line in urban areas. During Ninth Plan a provision of Rs. 44.80 crore has been made and 2.5 lakhs plots are to be formed and distributed.

30. Accelerated urbanisation coupled with industrialisation and absence of structured housing schemes for the urban poor have brought with it a rapid growth of slums. In spite of efforts to contain proliferation of slums in different plan periods, the slums have been increasing fast and thick and cause tremendous pressure on urban basic services and infrastructure. The problems of slum dwellers have been engaging the attention of government since the Second Five Year Plan.. A slum clearance scheme was introduced in 1956. Gradually it was realised that this strategy would not lead to provision of adequate facilities for the target group since slum dwellers grew at a rapid pace and the cost of rehabilitation by providing additional land and developing it was very high. Such relocations involved substantial hardships to those affected. In 1972,then, the strategy of slum clearance and rehabilitation on new land was abandoned and a Central scheme of Environmental Improvement of Urban Slums (EIUS) was introduced with an objective of improving the living environment of slum dwellers by providing basic civic facilities. Under EIUS from 1972 to November 1998, a total of 320.81 lakh persons were covered as against the target of 282.96 lakh people.

31. In slums, 40 percent of households are without access to safe drinking water and 90 per cent without access to sanitation. Diarrhoea deaths account for 28 per cent of all mortality, while acute respiratory infections account for 22 per cent. Nearly 50 per cent of urban child mortality results from poor sanitation and lack of access to clean drinking water in the urban slums.

32. Government of Karnataka carried out an evaluation of the works executed in the select slums in the state. According to its report dated May 2000, the condition of 49 out of 61 works was found to be poor. 62.5% of street lighting, 67% of drinking water works and 78% of roads, drains, community toilets and bathroom were in poor condition. Repairs were not done and damaged parts were not repaired. Toilets and baths were not regularly cleaned and water was not available there. Garbage disposal and maintenance was never done.

33. Slums are a direct outcome of the failure of State policy and law to intervene effectively to ensure legal access of the urban poor to land and financial resources which would be necessary to enable them to construct for themselves legal and adequate shelter. Despite stated commitment in official documents to ensuring access of housing to the poor, actual investments in this regard have been niggardly and misdirected. This is aggravated by both law as well as administrative and other prejudices which have not only consistently blocked the access of the urban poor to shelter but have actually criminalised them.

34. Swelling populations, fragile and insecure incomes and a legal and regulatory regime hostile to the urban poor combine to exclude poor people from safer, higher value sites in the city. Instead, they are crowded in precarious locations such as open drains, low-lying areas, the banks of effluent tanks, vicinity of garbage dumps, open pavements and streets. They survive in chronic fear of eviction, fire or flood. Housing for those who do not sleep in the open is in a shambles literally. Over-crowded inside and outside, the house itself is just built out whatever material is available and often fails to keep out the cold or the rain.

35. Most housing schemes for the urban poor result in inappropriately located and designed tenements of poor standard and inefficiently high costs. What is worse, they are priced out of the range of the poor. Other points about housing for urban poor are summarized below:

i. Much of the land on which the poor settle is deemed by the government to be illegally occupied and is, therefore, characterised by high levels of insecurity of tenure.

ii. Illegality leads denial of infrastructure and public services needed to improve the habitat.

iii. The economy of the poor households often dictates a need to be located in central areas of the city with access to incomes and daily work. But these locations are generally the site of the greatest insecurity of tenure, rapidly rising land prices and most intense land-use conflicts and tend to push the poor to fringe areas.

36. Non-availability of affordable/suitable land has been impeding the growth of housing activity and the concept of developing a land market is now being recognised by State Governments. Legislative amendments are also vital to this sector. The Ministry has since formulated and circulated to the States a Model Rent Control Bill, a Model Apartment Ownership Bill and a Model Property Regulation Bill. The reduction of stamp duties is also being pursued as also issue of Amendment to the NHB Act to bring about speedy foreclosure. This would facilitate a secondary mortgage market. The Urban Land Ceiling Regulation Act, 1976 stands repealed and the value of this initiative would be felt after the State Governments also adopt this. In the Budget of 1999-2000, the Ministry offered a package of fiscal incentives for the housing sector which include exemption from income tax on the interest on loan for self- occupied property up to a ceiling of Rs. 75,000 to attract investors into housing activity and raising the incremental deposit of commercial banks for housing sector from 1.5 % to 3 % to boost the housing activity.

37. To facilitate introduction of innovative technology to reduce building costs and encourage use of environment friendly technology, grants were given to the Building Material Technology Promotion Council (BMTPC). However, the proven technology developed by BMTPC and the technologies adopted by other institutions/ agencies need to be reviewed. There is a feeling that BMTPC has not played its role effectively in educating the people (like plumber, electrician, carpenter etc) connected with the construction activities on the various models and use of appropriate materials.

38. From being *provider* of housing stock to the poor, the role of the State is now increasingly perceived as *facilitator* and subsidized housing of the poor is being debunked in favour of cost recovery by institutions. Official documents now speak of the objective of providing *affordable* shelter to the poor, rather than ensuring *adequate* shelter of minimum basic standards to all people.

39. During 1996, the Central Government introduced the National Slum Development Programme (NSDP) under which funds by way of Additional Central Assistance (ACA) were given to States on yearly basis. In addition to ACA, investments have also been made through external assistance for slum upgradation. A provision under NSDP is also made to take care of housing and shelter upgradation of slums.

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40. The Working Group was set up in the Planning Commission to study some of the related issues and the basis on which funds were to be allocated among States. The main recommendations of the Working Group were as under:-

(i) Locational characteristics of slums differ considerably from each other being area-specific, and slum upgradation expenditure may vary irrespective of magnitude of slum population in various States.

(ii) Handling of slums is a delicate issue. It has to be dealt with in a decentralised manner as different States have different specific local problems; Central intervention in the matter can at best be limited;

(iii) The slum population in States/Union Territories (UTs) should form the basis for allocation of funds for slum improvement. The slum population given in the Census may not serve the purpose because the data have selective coverage and are limited to notified slums in class-I and II towns (city proper) only. Therefore, States/Union Territories may adopt the definition of *slum* as provided under Section 3 of Chapter II of Slum Areas (Improvement and Clearance) Act, 1956 and Rules made under it in their respective States or the definition adopted by the NSSO (National

Sample Survey Organisation) for its 49th Round.

(iv) For States, for which the number of slum households are available in the NSSO report, the slum population may be estimated by using the standard size of five persons per household to arrive at estimates of State-level slum population for allocation of funds;

(v) Some institutional arrangements are required to be made at State level to collect the slum population data and other related information at fixed intervals — preferably after a gap of five years — through local bodies in their area of operation. At the Central level, the Ministry of Urban Affairs and Employment may identify a central agency for collection and maintenance of data on slums and other related matters for monitoring slum upgradation schemes.

41. The Planning Commission has found that only a very few States have developed a structured scheme for housing for the BPL category.

> Government of Maharashtra has implemented a World Bank Aided Affordable Low Income Shelter project in Bombay Metropolitan Region with an objective of bridging the gap between incremental shelter demand and supply and to improve slum dwelling and environmental surroundings of slum locations. Development of service plots and slum upgradation were the main components of the project.

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42. An important issue in the context of proliferation of slums would be to consider the feasibility of making the contractors responsible for providing affordable shelter and basic amenities to the workers engaged by them. A major shift in policy may be examined to promote and sustain economic opportunities in smaller and intermediate towns and restrict the areas of economic opportunities in larger cities. It has been observed that often relocation of slum programme failed because the beneficiaries resorted to disposal of the assets for their own benefits. To avoid this practice, the ownership of the properties should not be vested in the individuals; instead slum dwellers may be helped in forming cooperative societies.

43. A Night Shelter Scheme was introduced in 1988-89 to improve/provide shelter to the shelterless in the metropolitan cities. This was revised in 1992 to include other urban areas. However, constraints relating to availability of land in suitable areas stalled progress in the Eighth Plan. The Ministry has been asked to work out details of this programme in consultation with the State Governments and examine the possibility of merging this scheme with other ongoing schemes.

44. However, a major flaw in the entire range of State responses to the unmet right to shelter of the urban poor is that it does not in any significant way alter the legal and regulatory regime in favour of the poor. On the contrary, both law and its practice remain heavily weighted against the urban poor.

45. An equitable urban land policy would assist the poor in their access to land for shelter. In practice, land use has largely been regulated by markets or public authorities. Both mostly exclude the poor.

Urban Poverty Alleviation

46. The active involvement of poor can well contribute to poverty reduction and in turn to the growth process. The programmes related to poverty reduction has remained an important goal of urban policy in India. The 1993-94 official estimate of the total urban population below poverty line was 32.36%. The origin of urban poverty alleviation initiatives could be traced to the community development programmes which began in early 1950s. The government policies and programmes on urban poverty reduction have moved from a stage where it was seen primarily in terms of social and economic inequities in the First Plan and later as distortions in the income distribution in the Fourth Plan. The Fifth Plan identified Environmental Improvement of Urban Slums (EIUS) as a basic need of the poor population and the Sixth Plan made the first attempt to address urban poverty issues directly instead of treating them as an adjunct of rural poverty. The Urban Basic Services for the Poor (UBSP) catered to basic physical and social needs of the urban poor with a community participatory approach and the Nehru Rozgar Yojana (NRY) was designed to provide employment to the unemployed and under- employed urban poor. In the Eighth Plan, Prime Minister's Integrated Urban Poverty Eradication Programme (PMIUPEP) sought to address the problem of urban poverty with a multi-pronged long term strategy which envisaged bringing community based organisations to the centre of the development of process by facilitating direct participation by the targeted groups.

47. The Ninth Plan has noted that the problem of urban poverty is a manifestation of lack of income and purchasing power, which in turn is attributable to lack of productive employment and considerable under-employment, high rate of inflation and inadequacy of social infrastructure, affecting the quality of life of the people and their employability. An integration of all these — the area approach, the beneficiary approach and the community approach — was applied to rationalise the various urban poverty alleviation programmes.

48. A few months after start of the Ninth Plan, the Swarna Jayanti Shahari Rozgar Yojana (SJSRY) was launched in December 1997 subsuming the earlier urban poverty alleviation programmes viz, NRY, UBSP and PMIUPEP. The new rationalised scheme contemplates upliftment of urban poor by convergence of employment components of the earlier schemes and seeks to provide gainful employment to the urban unemployed or underemployed poor through encouraging the setting up of self-employment ventures or provision of wage employment. The two schemes under SJSRY comprise, (a) the Urban Self Employment Programme (USEP) and (b) the Urban Wage Employment Programme (UWEP). The USEP seeks to provide wage employment to beneficiaries including women and children living below the poverty line. The scheme also encourages setting up of Neighbourhood Groups, Community Development Societies etc. The UWEP applies to ULBs with a population of less than 5 lakhs as per 1991 census. The outlay for the Ninth Plan is Rs. 1,009 crore. The overall percentage of performance by States during 1997-99 was 30%.

49. Recent discussions with State Governments have given an impression that in most places schemes like Neighbourhood Committee, Development of Women and Children in the Urban Areas (DWCUA) are yet to be established. Like-wise, the wage component has apparently not had the desired impact in many urban areas. Capacity building also needs to be strengthened and the programme requires a formal evaluation to understand the reasons behind low utilisation of funds. It was observed that the performance in the implementation of SJSRY is not very encouraging and the scheme requires an evaluation study to assess the strength and weaknesses before drawing conclusions about the relevance of its components especially to suit the local needs of States/UTs. It was also felt that there is a need for modification of criteria, norms etc. for applicability of the scheme in States/UTs with divergent problems, absorption capacities etc. as also to explore the possibilities of convergence of on-going programmes having a common target group. Despite the fact that the scheme has not progressed to the anticipated level, it is encouraging to note how the Government of Andhra Pradesh has tuned the component of women group (DWCUA) under SJSRY to local conditions in community sanitation; this helps women from poor families in the State to secure gainful employment and contribute to better sanitation in the area.

The Department of Municipal Administration, Government of Andhra Pradesh, took the initiative of entrusting some of the functions of ULBs to the women groups under the DWCUA component of SJSRY. Kukatpally Municipality is one such area where 12 willing women came forward to form a group under the DWCUA and registered it as Mother Teresa Stree Samaj Sewa Sangam under Society's Registration Act. Keeping in view the deteriorating condition of sanitation in the locality, the Municipal Authority ascertained the priority areas of attention, viz., sweeping, cleaning the roads and lifting/transporting of garbage and entrusted the women's group with this task and to supervise implementation of the scheme on contract basis.

The cost estimate of Rs 73,656 per month for this was worked out on the basis of area to be covered, quantum of work involved, manpower required and wages to be paid. The Municipality helped the women's group in securing financial assistance through subsidy under SJSRY and supplemented it with a bank loan for purchase of a tractor required for transporting the garbage. The arrangement for repayment of loan was also worked out by the Municipality.

The success of the scheme can be assessed from improved sanitation in the target area, economic empowerment and individual identity (self respect) of women, increase in the earning of the family etc. In a year's time, 26 ULBs in the State have organized 74 women groups and are successfully maintaining public sanitation.

CHAPTER 12

EDUCATION

The Ninth Plan looks at education as the most vital and crucial investment in human development. The Special Action Plan (SAP) of the Prime Minister gave an emphasis to total eradication of illiteracy, equal access to and opportunity of education up to the school leaving stage, improvement in the quality of education at all levels from primary schools to universities and the need for expansion and improvement of social infrastructure facilities for education. These objectives have been formulated on the basis of the Ninth Plan Document(Approach Paper).

Central Sector

2. The Government has accorded high priority to education sector in the Ninth Plan and has allocated, Rs.24908.38 crore against an expenditure of Rs.8521.89 crore in the Eighth Five Year Plan, representing a nearly three fold increase in the funds available to the Union Department of Education. This is depicted in Table I below.

Table - I
Sectoral Outlays for Education (Centre)

Sub-sectors of Education	8th Five Year Plan (Expenditure)		Ninth Plan (Outlay)	
	Rs. in crore	%age	Rs. in crore	%age
Elementary	4006.55	47.0%	16369.59	65.7%
Secondary	1537.99	18.0%	2603.49	10.5%
University & Higher Education.	1055.82	12.4%	2500.00	10.0%
Technical Education.	1086.72	12.8%	2373.51	9.5%
Adult Education	718.14	8.4%	630.39	2.5%
Others – Languages, Book Promotion, Scholarships, Educational Planning & Administration etc.	116.67	1.4%	431.40	1.8%
TOTAL	8521.89	100	24908.38	100

Expenditure in IX Plan(1997-2000)

3. During the first three years of the Ninth Five Year Plan expenditure is likely to be of the order of Rs.12012 crores which is about 50% of the Ninth Five Year Plan outlay. Sectoral percentage of allocations and expenditure in the first three years of Ninth Five-Year is given in the table. II below:

Table. II

(Rs. crore)

Sector	Ninth plan allocation (Rs. in crore)	Proportion of funds allocated in 1997-98, 1998-99 & 1999-2000)	Anticipated Expenditure Upto 31.3.2000	Balance amount available in last two years of the Ninth Plan (%)
Elementary	16369.59	48.94	51.05	48.95
Secondary	2603.49	52.94	47.52	52.48
H.E.	2500.00	50.47	48.45	51.55
Technical	2373.51	52.97	46.11	53.89
Adult Edu.	630.39	42.14	50.18	49.82
Other – Languages Book Promotion Scholarships Educational Planning and Admn. etc.	431.40	59.16	44.49	55.51
Total	24908.38	51.54	48.22	51.78

4. It may be seen from the above table that budgetary allocations in the first three year Annual Plans were about 52% of Plan outlay whereas anticipated expenditure by 31.3.2000 would be 48.22% leaving a balance of 52% of outlay to be utilized in the last two years. There has been shortfall in utilization of funds in secondary, higher and technical sectors mainly due to economy cuts, delays in finalization of new initiatives and slow pace of expenditure, particularly in backward States.

5. The thrust areas for educational development in the Ninth Plan include universalisation of elementary education, achievement of full adult literacy, raising the quality of education at all levels, improving learner achievement, upliftment of the educational status of disadvantaged groups including SC/ST/girls and disabled children, removing of regional disparities, vocationalisation of education, renewal of curriculum to meet emerging challenges in information technology and support for development of centres of excellence at the tertiary level.

Elementary Education

6. Elementary Education finds the highest priority in sub-sectoral allocations within the education sector. This indicates a strong reiteration of the country's resolve to give the highest priority to achieve the goal of Education

for All (EFA) during the Plan period. This is sought to be achieved through several measures, which include the following:

- Amendment of the Constitution to make Elementary Education a Fundamental Right.
- Decentralization of planning, supervision and management of education through local bodies at district, block and village levels.
- Social mobilization of local communities for adult literacy campaigns and for promotion of primary education.
- Convergence of different schemes for UEE.
- Stronger partnership with NGOs & Voluntary organisations.
- Advocacy and Media Campaign for UEE.
- Provision of opportunities for Non-Formal and Alternative Education for out of school children in the most backward areas and for unreached segments of the population in response to local needs and demands articulated at the grass root level.

Allocation to Elementary Education

12

(Rs in crore)

Government	Annual Plan 1997-98 (RE)	Annual Plan 1998-99 (Outlay)	Annual Plan 1999-2000 (Outlay)
Union Government	2,265.32 (56%)	2,778.53 (55%)	3,035.12 (52%)
States/UTs	1,770.51 (44%)	2,239.89 (45%)	2787.77 (48%)
Total	4,035.83 (100%)	5,018.42 (100%)	5822.90 (100%)

7. The interventions in the programmes of elementary education aim at providing schooling facilities within a walking distance of one km from habitations for children of primary schools and three kms. for children of upper primary schools and strengthening of the alternative mode of education delivery viz. non-formal education for schools dropouts, working children and girls. This is to be combined with the qualitative aspect of minimum levels of learning at the primary and upper primary stages so as to achieve universal elementary education.

8. In terms of access, 94% of the rural population living in 8.26 lakh habitations have now a school within a walking distance of one km. and 84% of this population have now an upper primary school within a walking distance of 3 kms.

9. Concerted efforts have been made during the Plan period to expand access, increase retention and to improve learning achievements of children in elementary schools.

10. Drop out rates have shown a declining trend during the last five years. The decline is from 45% in 1992-93 to 39.58% in 1997-98, showing an overall decrease of 5.42 percentage points at the primary level. At the upper primary stage, the drop out rate was 61.10% in 1992-93 and it declined to 54.14% in 1997-98, showing an overall decrease of 6.96%. Studies have shown that poverty is the major cause for dropping out of school. The other factors for drop out is a curriculum which is uninteresting and not relevant to the life of the children.

11. The Programme of Minimum Levels of Learning (MLL) has been introduced in most States. The Programme aims at specifying competency levels which children are required to attain in language, mathematics and in the environmental studies, in classes 1 to 5 and to reorient the teaching learning process to facilitate achievement of these. Several States have successfully used the idea of MLL to launch a number of activities including revision of text books, change in curricula and teaching methodologies, as well as in the content of teachers training.

12. The Mid-day Meal Programme has acquired an all India coverage in 1997-98. The number of children covered under the Programme has risen from 3.4 crores in about 3.22 lakh schools in 1995-96 to 9.85 crore in about 6.88 lakh schools in 1998-99. The initial impact of the programme of enrolment and participation of children, especially girls, has been favourable. Evaluation studies sponsored in four States, i.e. Orissa, Tamil Nadu H.P. and U.P., by Planning Commission through various institutes reveal that average attendance rate has increased and dropout rate has decreased in the post Mid-day Meal period as compared to the pre-mid-day meal period (prior to launching of the scheme in 1995). These studies have suggested that a) the teachers should be involved in the supervision and monitoring of the mid-day meal programme. b) Basic infrastructural facilities are required like spacious kitchens in all the schools. c) The mid-day meal programme needs to be combined with an "education package" like free uniforms, free text books and bus passes etc. The allocation of funds for the programme has not been commensurate with the requirement resulting in setbacks to the programme. Most States have not been in a position to make additional investments required for converting food grains into hot cooked meals.

13. There are a large number of initiatives in the elementary education sector and there is a need to have a holistic and convergent approach, bringing all existing programmes under one umbrella, with a clear district focus.

This would facilitate need based contextual planning with community participation. The Panchayati Raj institutions have emerged as a powerful vehicle for decentralised management of education and efforts would be made to further enhance their role, in the light of the recommendations of the Central Advisory Board on Education (CABE) Committee on Decentralised Management of Education. On-going schemes will continue in the current financial year as they are. From the next year, they would be to reflected as part of the Sarva Shiksha Abhiyan's District Elementary Education Plan.

14. During the last few years large scale innovations are being experimented by the State Governments in the field of elementary education. The establishment of more than 22,000 centres under the Education Guarantee Scheme in Madhya Pradesh , opening up of more than 12,000 Rajeev Gandhi Swarana Jayanti Pathshalas in Rajasthan, large scale recruitment of para teachers in Andhra Pradesh, Gujarat, M.P. and U.P. are a few such initiatives that are likely to have a positive impact on the quest for UEE.

15. The number of teachers which was 7.51 lakhs in gross terms in 1950-51 rose to 46.05 lakhs in 1997-8, a more than six fold increase. Here also the number of women teachers has increased substantially from 1.15 lakhs to 16.16 lakhs in the corresponding period. Despite this the teacher-pupil ratio (TPR) has increased from 1:24 to 1:42 at the primary stage and 1:20 to 1:37 at the upper primary level. The TPR suggests that demand for elementary education has increased and justifies the need for opening more educational institutions and engaging more teachers to meet the demand of the school going population.

16. The programme of Non-Formal Education (NFE) i.e. education for out of school children has been expanded and consolidated. The number of NFE centres is now approximately 3.00 lakhs and it covers about 75.00 lakh children. 24 States/UTs are implementing this scheme and 1.18 lakh centres are being run exclusively for girls by State Governments for which the Central Government provides 90% assistance. Also 60% assistance is provided by the Central Government for co-ed centres run by the State Governments. 825 Voluntary Organisations are also running NFE centres for which the Government of India is providing 100% assistance. Besides 41 experimental and innovative projects have also been sanctioned to NGOs for bringing innovations in the implementation of the scheme. The evaluation study carried out by the PEO revealed that both the State and central Governments were slow in releasing allocations and the flow of funds to the NFE centers was also erratic. Lack of accommodation and poor lighting facilities were major problems faced by NFE centers.

17. The Scheme of Operation Blackboard which aimed at improving class room environment by providing infrastructural facilities, additional teachers and teaching learning material to primary schools and by provision of a third teacher to such schools where the enrolment figure exceeded 100 has been extended to upper primary schools. 5.23 lakhs primary schools and 1.27 lakh upper primary schools have been provided funds for development of academic infrastructure (teaching learning material). About 1.50 lakh posts of additional teachers for single teacher primary schools, 0.74 lakh posts of additional teachers at the upper primary stage and 0.79 lakhs posts of third teachers have been sanctioned up to 1997-98. It is a matter of concern, however, that several States are reluctant to create the additional posts of teachers sanctioned under OBB due to the condition that recovering liabilities on account of salary of teachers would stand transferred to the States at the end of the Plan.

18. The scheme of restructuring and reorganization of Teacher Education envisaged strengthening of the institutional base of teacher training and for taking up special programmes for training of teachers in specified areas and other non-institutional programmes for teacher training. Significant progress has been made in this area with 448 District Institutes of Education and Training (DIETs) sanctioned to provide pre-service and in-service training to elementary school teachers and for adult education and non-formal education personnel. 110 Secondary Teacher Education Institutes have been upgraded into CTEs/IASEs. In addition, 20 SCERTs have also been strengthened. These institutions have helped in improving the content, process and management of pre-service and in-service teaching and reorganisation of teacher education . About 10 lakh teachers have been covered under the Special Orientation Programme of primary teachers. A pilot scheme has been initiated to use the distance education mode for Primary school teachers training in Gujarat and M.P

19. The District Primary Education Programme which is assisted by the World Bank and European Union aims at operationalising the strategies for achieving UPE/UEE through district specific planning and disaggregated target setting in low female literacy districts and builds on successful TLC campaigns which have created a favourable climate for universalisation. The Project is funded 85% by external agencies through the Central budget and the remaining 15% by the concerned State Governments. The programme components include construction of class rooms and new schools, opening of the non-formal/alternative schooling centres, appointment of new teachers, setting up of early childhood education centres, strengthening of State Councils of Educational Research and Training/District Institutes of Educational Training, setting up of block resource centres/cluster

resource centres, teacher training, interventions, development of teaching-learning material, research and a thrust for education of girls, SC/ST etc. A new initiative of providing integrated education to disabled children and distance education for teacher training has also been incorporated in the DPEP Scheme. At present the scheme is under implementation in 219 low female literacy districts in 15 states. Expansion of the project to another 30-35 districts in UP, 10 districts in Rajasthan, 8 districts in Orissa and 5 districts in West Bengal, is in the pipeline.

20. Two of the other externally aided projects for basic education are the Rajasthan Shiksha Karmi and Lok Jumbish Project in Rajasthan which are also innovative projects aimed at universalisation of elementary education together with qualitative improvement in remote and socially backward villages with a primary focus on gender. The projects respond to some of the major obstacles in achieving UEE, namely, teacher absenteeism, high rate of drop outs, working children, uninteresting teaching methods, lack of contextual learning materials, low motivation and competence of teachers, a centralised and inflexible approach etc. There is a special emphasis on community participation in these projects. The Lok Jumbish Project carries decentralisation of education down to the block level and uses micro planning and school mapping techniques for involving parents to ensure that children go to school.

21. Another externally assisted programme with a specific focus on gender is Mahila Samakhya, which aims to promote women's education through empowerment in 5 States. The programme has spread over into 4054 villages in 24 districts of UP, Andhra Pradesh, Karnataka, Gujarat and Kerala. The MS has initiated several interventions in early childhood care, Adult Education, Non-formal Education and education support facilities which are managed by the women themselves. This has also played a pro-active role in ensuring proper functioning of various developmental schemes. By establishing Mahila Shikshan Kendras (MSK), illiterate women and adolescent girls, who have not joined a formal school or were school drop outs, have been receiving education by specially designed condensed quality education courses with innovative methodologies and skill development programmes. In many States, the Sanghas (village level women's collective) under MS, have emerged as forums at the village level to which women and others bring their problems for arbitration.

22. There is a shortfall observed in expenditure in the years 1997-2000. As against an outlay of Rs.21 crore, the expenditure incurred, till 30th June, 1999, was only Rs.9.74 crore. The Ninth Plan allocation for the scheme is Rs.35 crore. The activities under the scheme need to be monitored more vigorously.

Adult Literacy

23. The National Literacy Mission (NLM) was set up in 1988 with the target of making 100 million persons in the age group of 15-35 literate in a phased manner. Through its main strategy of special projects for eradication of illiteracy, commonly known as Total Literacy Campaign (TLC) and Post Literacy Campaign (PLC) it has been able to achieve a coverage of 72.56 million persons, of which 60% are women, 23% SCs and 12% STs. 556 districts are now covered under Literacy Campaigns – 182 under Total Literacy Campaign, 259 under Post Literacy Campaign, 30 under Rural Functional Literacy Programme and 85 under Continuing Education Programme. The Programme of TLC and PLC has been faced with some difficulties in the low literacy States mainly due to the absence of voluntary organizations and other socio-cultural barriers. There is growing awareness that the Continuing Education Pragramme requires qualitative upgradation in order to make it relevant, contextual and acceptable. Meaningful initiatives in this respect are visible in various parts of the country.

24. As a result of concerted efforts made in the area of primary education, non-formal education and adult education, there has been a significant step up in the literacy rates prevailing in our country. The NSSO has recently collated and released figures indicating a substantial growth in literacy percentage recorded in our country.

25. India's literacy rate was 52.2 per cent in 1991. According to the NSSO, this rate now stands at 62 per cent at the end of December 1997.

26. Male literacy rates have now risen from 64.1 per cent in 1991 to 73 per cent in 1997 and the female literacy rates in the corresponding period have risen from 39.3 per cent to 50 per cent. It is heartening to note that while the male literacy rate has risen by 9% point between 1991-97, female literacy rate have risen by 11% points.

27. Yet India is the country which houses the largest population of non-literates who constitute one third of the total non-literates in the world today. Gender disparities are sharp and the wide differences in inter-state and intrastate literacy rates a cause for major concern.

28. A number of new initiatives are proposed during the remainder of the Ninth Five Year Plan to further consolidate the Schemes/Programmes under the National Literacy Mission. These are :-

Literacy Campaigns & Operation Restoration:

29. Under this scheme, an integrated approach to literacy would be followed. The integrated proposal seeks to effectively bring the activities of literacy campaigns under one 'Literacy Project' to achieve continuity, efficiency and convergence and to minimize unnecessary time lag between the two.

30. The existing funding pattern of literacy campaigns is proposed to be continued. The funding ratio between Centre and State Government for normal districts is 2:1, whereas for districts under Tribal Sub-Plan the ratio is 4:1. The per learner cost for a TLC is proposed in the range of Rs.90-180, and that for a PLC is Rs.90-130 for one year. It is also proposed to allow implementing agencies to incur expenditure on the basic literacy activities during the post literacy phase. The expenditure on basic literacy will, however, have to be met out of the overall budget approved for the post literacy at a per learner cost in the range of Rs.90-130.

31. The scheme of Rural Functional Literacy Project has been subsumed with the scheme of Literacy Campaigns and Operation Restoration. The scheme will be implemented by the ZSSs on the existing parameters, with payment to Preraks who will run the RFLP centres under the Zilla Saksharata Samiti in a district.

Scheme Of Continuing Education:

31(a). The scheme will continue to be implemented by the existing Zilla Saksharata Samiti headed by the Collector. However, the ZSS may also be headed by a democratically elected Chairman of the Zilla Parishad in the States where a full-fledged Panchayati Raj system has been established, if considered suitable. The ZSS would identify VAs, Mahila Mandals, Panchayati Raj Institutions, NYKs etc. to take up CECs/Nodal CECs. The ZSS would, however, be responsible for coordinating, monitoring and supervising the implementation of the programme by these agencies. Each ZSS would be provided with a computer system for monitoring the programme.

Support To Non-Governmental Organisations In The Field Of Adult Education :

32. The release of grants to NGOs other than the Resource Centres would be decentralised through the State Literacy Mission Authorities (SLMAs) upto 50% of the total grant released during the financial year and the remaining by NLM. Innovative projects and projects in respect of all-India level NGOs would be considered by the Grants-in-Aid committee at the National level. The NGOs would also be provided assistance for taking up continuing education programme in addition to innovative programmes in all parts of the country.

33. The existing SRCs would be strengthened and their annual maintenance grants suitably enhanced. The number of categories of resource centres would be reduced from three to two for deciding on the quantum of the maintenance grant. The District Resource Units (DRUs) which were hitherto functioning independently would be subsumed in the State Resource Centres.

Jan Shikshan Sansthan (Jss):

34. The scheme of Shramik Vidyapeeth (SVP) is proposed to be continued with a new nomenclature, i.e., Jan Shikshan Sansthan. This scheme is an unconventional programme of Non-Formal, Adult and Continuing Education implemented primarily in urban and industrial areas. The basic objective of the scheme is to improve the occupational skill and technical knowledge of workers for enhancing their efficiency and increasing productive ability.

Areas of concern in the programmes of Elementary Education and Adult Literacy:

35. Regular information, on drop outs and retention of children is not collected in all the States, Therefore getting accurate data on regular participation level of children in the schools is difficult.

36. As per estimates in 1997, 35.06 million children of age group 6-11 were out of school. This number would as per the estimates swell to 39.25 million. Therefore, net additional enrolment of this order will be required in order to achieve the goal of education for all. Of the additional net enrolment of 39.25 million, a large portion consisting of 30.45 million children are estimated to be in 8 States namely, A.P., Bihar, Gujarat, Maharashtra, M.P., Orissa, U.P. and West Bengal.

37. There are wide disparities among different States in the efficiency with which the school system function.

38. In the process of improving the Status of basic education in the country the biggest challenge has been the rising population and increasing demand for school places. Obviously this has outstripped investments made for expanding the system and reaching primary education to all children, not withstanding the multifold expansion of the system achieved during this period. Mobilising resources to match the raising demand, undoubtedly, is a major challenge before the planners. It is in this context that the country embraced programmes of "Education For

All"(EFA) in the nineties to intensify efforts and reach the goals of EFA both in quantitative and qualitative terms. These intensified efforts have brought into the forefront several critical questions that need careful consideration.

39. Considering the size of the country and multicultural and multilinguistic setting in which the goals of EFA have to be achieved, the focus of action during the last decade has been on district and sub-district levels. It in this context that several new institutional structures such as the DIET, BRC and CRC have been created. These institutional arrangements have begun meeting the teacher capacity building needs in a more comprehensive manner.

40. However, decentralization to district and sub-districts levels has brought to light the fragility of the expertise available at these levels for education planning and management. Though efforts have begun to establish State level institutions to meet the training needs of local level planners and administrators, it may take some time before these efforts could lead to creation of local level expertise capable of independent planning and management of EFA initiatives.

41. The main challenge for achieving the goals of EFA in the country is not merely one of providing physical access but also of ensuring the participation of all children in the process of basic education. Though the system has expanded enormously over the years, it has not been easy to overcome the resilience of certain pockets leading to persistent disparities among different geographical regions as well as between different social groups. Certain kinds of disparities such as male female difference have decreased during the last ten years. However, equity in promotion of EFA goals continues to be a major challenge for educational planners and administrators. It is recognized that this challenge cannot be made without bringing the school and the community closer and creating a sense of ownership and accountability among the stake-holders at the grassroots level. It is hoped that the processes of decentralization that are gradually emerging on the scene would help in addressing this issue in an effective manner.

12

Secondary Education

42. Secondary Education is expected to prepare young persons both for the world of work and entry into higher education. The number of secondary and senior secondary schools has increased from 0.07 lakh in 1950-51 to 0.83 lakh in 1991-92 and 1.10 lakh in 1998-99 representing a growth of 29% in the period from 1991-92 to 1997-98. However, student enrolment was only 2.72 crore. Provisional statistics available in the Sixth All India Educational Survey indicate that there has been an increase to the extent of 51% in the enrolment of girls in Class IX to X and a 54% increase in classes XI to XII as compared to 20% in the primary and 40% in upper primary stages during the period 1986 to 1993.

43. In secondary education the focus is on improving access; reducing disparities, renewal of curricula with emphasis on vocationalisation and employment-oriented courses; expansion and diversification of the Open Learning System; reorganization of teacher training and the greater use of new information and communication technologies, particularly computers.

44. In order to address important issues in secondary education it is proposed to give attention to the following areas:

- Revision of curricula
- Vocationalisation of Education
- Distance Education through Open Schools.
- Teaching of Mathematics, Science & Computer Education.
- Hostel facilities for girls.
- Minorities Education.
- Integrated Education for the Disabled.

45. NCERT is expected to take the lead in modernization of curricula and upgradation of text books to meet the challenge of rapidly emerging needs. A discussion document is under circulation eliciting views from different fora. Change in pedagogical methods for reduction in what the Yashpal Committee called the "burden of non-comprehension" among students and teachers call for a major effort on the part of academia. Reform of the examination system to make measurement and evaluation of students continuous, comprehensive, inter-active and transparent is a crying need. The pace of vocationalisation of secondary education requires acceleration. Education based on our rich cultural heritage and for inculcation of values would have to be nurtured and promoted with much greater vigour and purpose.

46. The Kendriya Vidyalaya Sangathan which started with 20 Kendriya Vidyalayas in 1963-64 is now managing 871 Kendriya Vidyalayas and its network is still expanding. The main activities taken up by the Kendriya Vidyalayas include providing for the educational needs of transferable Central Govt. employees, reviewing and updating academic activities and programmes, vocationalisation, information technology, creation of proper infrastructure for academic development, computerisation, etc. The

Sangathan's allocation has consistently been inadequate to meet its requirement of construction of school buildings.

47. The Navodaya Vidyalaya Samiti through more than 410 institutions in predominantly rural areas has also taken up activities for extension of infrastructural facilities, introduction of vocational courses, faculty improvement through training of teachers, construction of school buildings, etc. The Samiti is also faced with a consistent problem of inadequate budget allocation. There is a felt need to increase its Plan allocation to undertake construction of school buildings and other infrastructural facilities viz. laboratories, computers, etc. Both KVS and NVS organisations are languishing for lack of funds.

48. The National Open School has been making significant contributions for expanding access in the secondary and higher secondary sector through the distance education mode.

49. In order to promote Vocationalisation of Secondary Education, facilities have been created for 9.35 lakh students at the +2 level. The scheme has, however, not been successful barring a few areas. Following feedback from State Governments, the scheme is proposed to be transferred to the State Sector.

Higher and University Education

50. In the University and Higher Education Sector, ongoing efforts for retaining the competitive advantage of the country would continue along with measures for quality improvement and modernization of syllabi, renewal of infrastructure, extra-budgetary resource mobilization and greater attention to issues in governance of universities and colleges. Issues of access, relevance and quality upgradation would receive attention. Conferment of greater autonomy to deserving colleges and professional upgradation of teachers through Academic Staff Colleges would be given priority. Expansion is mainly targeted to unserved areas with a focus on women and under privileged sections. The Open University System, which is growing in popularity and size, is striving to diversify course offerings and gain wider acceptability by upgrading its quality. It would focus more sharply on the educational needs of women and rural society, as well as professional training of in service employees.

51. In Higher Education, due cognizance has to be taken of the fact that the country has an existing infrastructure which despite problems, is still one of the best in the developing world. The country needs to capitalise on this advantage and nurture it in order to enhance its competitiveness in the global market. Emphasis is being placed therefore on consolidation and optimal utilisation of the existing infrastructure through institutional networking, restricting expansion so as to only meet the demand of the unserved areas through both the traditional university system as well as through the open university system. Greater emphasis is also being placed on quality improvement and systemic efficiency. Vocationalisation of higher education is an important area calling for intervention.

National Education Test (NET)

52. The UGC conducts a national level test for recruitment to the post of Lecturers and for the award of Junior Research Fellowships to ensure minimum standards for entrants in the teaching profession and research. In the humanities and social Sciences the test is conducted twice a year in June and December respectively. The test in other sciences is conducted by the UGC with the CSIR. For those candidates who desire to pursue research, the Junior Research Fellowship (JRF) is available for five years. UGC has also allowed State Govts. to conduct eligibility tests for determining their eligibility for appointment as Lecturers.

Revision of pay scales of University & College teachers

53. The Government has revised the pay scales and other service conditions of University and colleges teachers' w.e.f. 1.1.1996. The State Governments have also been advised to adopt these pay scales in respect of the teachers in State Universities and Colleges. Similar revisions have been approved for institutions coming under the purview of technical education like IITs, IIMs, Indian Institute of Science, Indian School of Mines, NITIE, Regional Engineering Colleges, etc.

Autonomous Colleges

54. Higher priority has been given by UGC to grant of autonomy to selected colleges. A college is declared autonomous, by its affiliating University when there is evidence of its having potential in research and teaching in selected fields. So far 119 colleges have been conferred autonomous status by UGC.

Inter-University Centres

55. The Commission has set up various Inter-University Centres to provide front-line facilities and services for advancement of research in the University system. Till date, the Commission has established eight IUCs.

Technical Education

56. The basic thrust of technical education in the coming years would be on improving quality and relevance.

This would be made possible through a networking of technical and management institutions not only in the Government sector but also in the private sector. This would lead to pooling of knowledge in the fields of science and technology including research from institutes of excellence like the IITs, IISC Bangalore and such like and at the same time, encourage generation of additional resources towards achieving self-sufficiency by sharing of ideas and experience. The development of Regional Engineering Colleges (RECs) as 'centres of excellence' would be another important thrust area. The overall development of the technical education system through the World Bank aided project as well as the Canada - India Institutional Cooperation Project would enable the Polytechnics to contribute to HRD activities with enhanced capacity, quality and efficiency. Rural development by transfer of appropriate technologies would continue to be attempted through the scheme of Community Polytechnics (CP). Fifty seven new polytechnics have been established during 9th Five year Plan period. To help 12 million physically disabled persons, steps have been provided to impart them technical training in polytechnics. About fifty selected polytechnics are being upgraded to integrate the physically disabled (orthopaedically disabled partially deaf and dumb) in the mainstreams. This is a significant initiative.

57. With statutory mechanisms available under the AICTE Act, the overall quality improvement of teachers, students and infrastructure as well as intra and inter linkages would be possible. Several initiatives for empowering women and augmenting their participation in the technical education system are on the agenda of AICTE. Overall improvement of the quality and efficiency of the technical education system through modernisation of laboratories, development of key areas and creating appropriate R&D base would be continued.

58. Government has approved the establishment of an Indian Institute of Information Technology & Management at Gwalior to provide facilities for education, training, research, consultancy and professional development in areas of information technology and management. Another Institute of Information Technology has been set up Allahabad. The Indian Institute of Management (IIM) which was established by the Government of India at Indore in 1995 started its first academic session from 29th June, 1998 and IIM, Calicut has commenced its academic session from 1997-98.

59. Intense efforts are being made to reduce the existing teacher – student ratio in Information Technology courses to the desired level and greater focus is being laid on PG/ Research programmes particularly in the area of Information Technology and Software Development in premier institutions for moving up the value chain. This will enhance availability of quality faculty for successful running IT courses in other Institutions for producing required number of professionals in future.

60. The specific responsibility/task of formulating Schemes pursuant to the recommendations of the National Task Force on Information Technology vests with the Department of Education. An Inter-Ministerial Committee has accordingly been constituted to take follow-up action on the IT and Software Development Action Plan. Requirement of funds for implementing the recommendations of the National Task Force including the revised CLASS Scheme is of the order of about Rs.2,000.00 crores.

Concerns

61. Though the Sector has expanded substantially in terms of increased number of institutions as well as inclusion of new courses, it has faced many problems which weaken its overall efficiency. These are :

- Lack of enough training programmes in the area of Information Technology and Software development and shortage of talented and high calibre faculty particularly for the upcoming areas like IT and Software particularly in remote institutions like IIT, Guwahati.
- Lack of sufficient arrangements to sustain the progress and the tempo created with the assistance from the World Bank in the polytechnics.
- Inability to make available expensive resources to all the institutions.
- Compartmentalised functioning of RECs, IITs, and other Engineering institutions.
- Demand of new IITs by many other states.
- Limited increase of enrollment at the IITs. and other prestigious institutions.
- Brain drain resulting in wastage of resources and loosing of well trained, well qualified professionals in large numbers every year.
- Efforts to transfer the technology particularly in the rural areas have not been as successful as expected.

Future Course of Action:

62. Suitable steps should be taken to enhance the quality of technical education by making it more relevant for future particularly to the needs of rural India and upcoming technologies like IT and Software development.

Scholarships

68. The Department offers financial assistance to meritorious and needy students for pursuing studies in India and also selects deserving students for specialised courses abroad. A committee has been constituted to review the National Scholarship Scheme and the Talented Children Scheme for Rural Areas. The National Loan Scholarship Scheme, which was initiated in 1963, is being restructured to enhance scholarship amounts and to provide interest subsidy on student loans for full time recognised professional courses.

Education of the SC/STs/OBCs/Minorities

69. The Ninth Plan was committed to the advancement and empowerment of the SCs, STs, OBCs and Minorities. The National Agenda for Governance(NAG) spelled out clearly safeguarding their interests through appropriate legal, executive and social efforts and for their socio-economic empowerment, to accord high priority to improve their education and status, through Universal Primary Education (UPE) by 2005 AD with a special focus on low literacy pockets, employment oriented education and diversified vocational training, vocationalisation at Middle/High School levels, job oriented condensed courses to extend functionally viable and productive education especially in tribal areas. Monitoring of the progress of education through PRIs was envisaged especially for those living below poverty line.

70. Although there has been a visible change in the literacy rates of SC/STs since the last few decades and there were increased number of beneficiary oriented schemes implemented for these groups by the various government departments, particularly educational schemes, except the increase in the enrolment ratios of SCs in the Primary stage, there still is a wide gap between the enrolment ratio and literacy rates of these groups as compared to general population.

Educational Development In The North-Eastern Region

71. There are a number of interventions which the Department has been carrying out in the North-Eastern region. There is a high percentage of untrained teachers in the North-Eastern Region (35%). A special diploma programme called “Diploma in Primary Education” (DPE) for untrained school teachers of North-Eastern Region has been launched jointly by IGNOU and NCERT. Centrally sponsored schemes of Operation Blackboard (OB), Non Formal Education (NFE) and Teacher Education (TE) are also being implemented in most North Eastern States. The District Primary Education Programme (DPEP) is being implemented in 9 districts of Assam. Approximately Rs.12 crores is being provided for Teacher Education in the North Eastern Region.

72. Central interventions in the Secondary Education sector in the North East have been for improvement of Science Education, Environmental Orientation to School Education, Vocationalisation of Education, assistance to NGOs for strengthening boarding/hostel facilities for girl students and integrated education for disabled children. There are 82 Kendriya Vidyalayas and 53 Navodaya Vidyalayas in the North Eastern Region.

73. In the realm of Higher and Technical Education, out of an allocation of Rs.254 crores for the Central Universities during the 9th plan period, Rs.67 crores have been allocated to NEHU, Nagaland, Assam and Tezpur Universities in the North-east which is 26.37% of the budget allocated for Central Universities. In the State Universities Sector, UGC has allocated Rs.10.76 crores to the Guwahati, Dibrugarh, Manipur and Tripura Universities which is 4.49% of the total allocation to State Universities.

74. The Department is anxious to provide facilities for Higher & Technical Education to the students of North-East. In the Ninth Plan AICTE has approved, setting up of 6 engineering colleges, 19 polytechnics, 6 MBA and 2 MCA level colleges in the region. The Central Government has also set up an IIT at Guwahati, one Regional Engineering College at Silchar and the North Eastern Regional Institute of Science & Technology (NERIST) at Itanagar as joint ventures.

75. Besides the above, 612 seats at the degree level and 307 seats at the diploma level have been reserved in various engineering colleges and polytechnics in India for the students of the North Eastern States.

76. Under the scheme of appointment of Hindi teachers, Rs.3.40 crores have been released for the North East out of a total provision of Rs.6 crores.

Art & Culture

77. Culture being the sum total of the achievements of people is very closely connected with all development activities. Success of development plans cannot be assessed without taking into account the cultural strength and other characteristics of people at large. Likewise Ninth Plan thrust has been on protection, conservation, dissemination and promotion of all aspects of culture. The focus has been on a comprehensive plan of preservation of the archaeological heritage and development of the monumental complexes and museums in the country. Further, efforts have also to be directed towards the

preservation of archival heritage, and the promotion of classical, folk and tribal art and crafts and oral traditions which are threatened with extinction.

78. An amount of Rs. 920.41 crore was allocated for the Ninth Plan to Department of Culture. Department of Culture executed major schemes and programmes of the Government of India for promoting art and culture in the country. Its Plan programmes relating to promotion, preservation and conservation of the cultural heritage of the country are being implemented through a network of offices and cultural institutions under its control. Department of Culture itself executes a number of schemes directly for promotion and dissemination of art and culture. Its activities and programmes have been organized under seven broad heads. They are Archaeology, Musuems, Archives, Anthropology, Performing Arts, Libraries, Buddhist and Tibetan Institutes and others.

79. So far as National Academies are concerned, Sangeet Natak Academy was able to utilize 100% of its budgetary allocations during the years 1997-98 and 1998-99 and continued to work in furtherance of performing arts in India by arranging performances of renowned and talented artists including the younger generation, through training programmes, scholarships, awards, documentation etc. The Academy launched a new scheme entitled 'Playwright Workshops' for providing opportunities to poet and young writers to write new poems and plays in Indian languages. It also established a new Centre for Indian classical music at Gwalior for advance research and training. Sahitya Academy was also able to fully utilize its budgetary allocation for both the two years of the Ninth Plan. The Academy has an extensive publication and programme policy to carry out its activities every year. It presents awards to the most outstanding literary magazines published in Indian languages.

Policies and Strategies – New Initiatives

80. Besides continuing its on-going programmes, promoting and preserving various art & cultural forms and cultural heritage, emphasis has been given to strengthen inter-organisational network to introduce management oriented approaches in administration of cultural institutions. Networking amongst central museums has been strengthened enabling these institutions to share their experiences and resources in undertaking in service training, organizing exhibitions etc. In order to seek international standards museums require face lift with added attractions in terms of display of artifacts, curio counters and kiosks. To work out a national policy to this effect, there is need to constitute a National Commission on Museums which may be given the mandate to review the current status as well as recommend steps to achieve the stipulated goals. Network of museums has been established with nodal responsibility resting with the National museums in northern States, Salarjung museum for southern States, Indian Museum and Victoria Memorial for Eastern and North-Eastern States, Allahabad Museum for Central India and Prince of Wales Museum and National Galllary of Modern Art (NGMA), Mumbai for Western States. A Scientific Advisory Committee has also been constituted to ensure availability of better science and technological inputs for conservation of cultural heritage. The Scheme of financial assistance for salary and production grants to the NGO's and fellowships in the field of art & culture has also been revised in terms of increasing the amount by 100% in most cases and number of scholarships covering new research areas as cultural economics, management of cultural institutions, scientific technological principle of conservation, etc. The scheme of financial assistance for strengthening of regional and local museums has also been revised widening its scope for assisting smaller museums in the country. Museums have also been directed to give emphasis to digitilisation and documentation of works of arts objects as part of their plan activities.

81. Setting up and upgradation of site museums under Archaeological Survey of India (ASI) is another important area of work, in addition to taking up of more monuments as per their tourist importance. A weak area had been the conservation of Wall Paintings. Planning Commission initiated a programme by holding an All India Meeting and the scheme of Conservation of Wall Paintings has been launched in 1996-97 by the ASI. It would be further strengthened by establishing five project branch offices exclusively for conservation of mural paintings at Dehradun, Indore, Jaipur, Aurangabad and Mysore.

82. Comprehensive plans for conservation of archaeological heritage and development of monument complexes in the country have been formulated. ASI will take up 300 monument complexes for comprehensive development which are underway. Scheme for site management of monuments for preserving the monuments and reviving the historic gardens in their original style is to be initiated. So far utilization of funds by ASI is concerned, it is more than 100%, allocated to them during the first two years of the Ninth Plan.

83. Support has been extended for strengthening and improvement of programmes/activities of the Anthropological Survey of India. Support was also extended for increasing the amount of grants to Persons Distinguished in Letters, Art and such other walks of life who may be in Indigent Circumstances, revision of schemes of the Financial Assistance for Research Support

to Voluntary Organisations engaged in cultural activities, etc. New initiatives like National Mission of Manuscripts under National Archives of India, Organisation of State Festivals under the Scheme of financial Assistance to Voluntary cultural organizations/individuals for specified performing art projects, strengthening of preservation and conservation of manuscripts, by expanding the scope of grant-in-aid Scheme to NGO's and cultural organizations, increased emphasis on domestic exhibitions by National Level Museums, Technical and Managerial Training inputs to Museum functionaries, preparation of National Register of Antiquities and Setting up of Science Centers were also supported.

84. All the developmental activities of Zonal Cultural Centres (ZCC's), National Academies i.e. Sahitya Academy, Sangeet Natak Academy, Lalit Kala Academy and National School of Drama were supported.

85. The seven Zonal Cultural Centres played an important role in further developing and strengthening the cultural movement in the country by organizing cultural festivals/programmes in rural and urban areas, also continued their efforts for preservation, promotion and protection of tribal and folk art forms in association with the State Departments and Non-Government Organisations. The Ananthamoorthy Committee set up in 1994 recommended structural changes, reduction in administrative expenditure, better coordination between the Academies and the ZCCs etc.

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86. Support is also being extended for strengthening the Centres of Buddhist and Tibetan Studies at Leh and Sarnath, Nav Nalanda Mahavihara, at Nalanda, Tibet House, Tawang Monastry School, etc. being repositories of rare manuscripts and centers of Buddhist learning for improving their infrastructure. Review Committees were formed which inspected and reviewed their activities. Spituk Monastry, Leh has been provided Rs.1 crore by Planning Commission as special assistance for its renovation and repairs during 1999-2000.

87. Promoting and supporting development activities of the sector of Art & Culture in the North-east (including Sikkim) have been the focus of the policies of the Planning Commission and 10% of the Plan budget of all departments is being earmarked for such projects and programmes for the region specifically. As a special initiative for promoting art & culture in the north-east, Deptt. of Culture has also been earmarking funds under various schemes like setting up of multi-purpose cultural complexes in States including those for children, Scheme for promotion and strengthening of regional and local museums, setting up of regional centre of the National Archives of India at Guwahati, financial and technical assistance for renovation, maintenance and conservation of State heritage like monuments, paintings, manuscripts, setting up science centers/museums and the scheme of grant-in-aid to Buddhist and Tibetan Institutes/ Organisations.

Financial Progress in States

88. An outlay of Rs.688.35 crore was approved for the States/UTs under the Art & Culture sector for the Ninth Five Year Plan against which the anticipated expenditure in the first two years is Rs.239 crore

Action Plan

89. It is observed that in the first two and half years of the Ninth Plan, Deptt. of Culture in coordination of Planning Commission have reviewed a number of schemes and have accordingly modified and upgraded them. Besides continuing their ongoing activities for promoting and preserving various art and culture forms and heritage, the main thrust during the period, so far has been to strengthen inter-linkages of the cultural institutions through networking and by introducing management oriented approaches in administration, and by utilizing the latest information technology, management and scientific principles to achieve their objectives. It is amply reflected in the revision of the various schemes for promotion and dissemination of art and culture, scholarships, establishment of distributive network of museums, revision of the various schemes of financial assistance of grant-in-aid by enhancing assistance from 75% to 100%. The private sector is being involved for supporting the activities in the cultural sector through the scheme of National Culture Fund set up in March 1997 and in promoting management of monument tourism. An incentive of 100% exemption of Income Tax has been given for this. New proposals are also under consideration of Deptt. of Culture under the Scheme. Through the activities of ZCCs, it has become possible to reach the people in the remote rural areas through various schemes of performing arts and crafts, of National cultural exchange program, setting up of documentation centres to protect vanishing and dying art forms and setting up of shilpagrams for providing promotional and marketing facilities to craftsmen.

90. The higher outlay for the sector of archaeology, libraries and archives has been as per the thrust areas of the Ninth Plan but in the case of museums it has remained more or less static which is a matter of concern. Effective and efficient implementation of some of the schemes is reflected in the utilization of the Plan allocations in the first two years of the Ninth Plan. In certain areas of course, the success has not been to the level as was expected particularly in the capital works like the programmes of

the construction of the Annexe building of National Gallery of Modern Arts which has yet to start and the Bhasha Bhavan of National Library, Calcutta.

91. It is noted that there has been shortfall in the level of expenditure in case of some attached and subordinate offices like National Archives of India, National Museum, National Research Laboratory for Conservation of Cultural Property and National Library, Calcutta. The reason given is, due to mismatch between the allocations for capital works and partly due to infrastructural bottlenecks being faced by the institutions. for completing them.

92. Most of the Plan expenditure of the organizations which are fully funded by Deptt. of Culture aim at modernizing, upgrading, maintaining their conservation activities and for further conservation and protection of art objects, books and manuscripts for the new initiatives that the Deptt. proposes to undertake during the Ninth Plan, they need to be provided financial resources as agreed to for the Ninth Plan. Some of the organizations also need support for their capital projects like IGRMS, Kalakhshetra, Chennai, etc. ASI too needs additional funding for undertaking new sites for protection besides maintaining the existing monuments. The constraint of financial resources has prevented the Department from undertaking some of the new projects as the allocations have been much below the projected level

Youth Affairs & Sports

93. Youth constitutes the most creative segment of a society. Youth constitute about 34% of the total population of India. The need and importance of physical education for health and physical fitness with a view to increasing individual productivity and the value of sports as a means of creation and with a potential social harmony and discipline are well recognised. The thrust area in this sector during the Ninth Plan is harnessing Yuva Shakti.

94. Of the total Ninth Plan approved outlay of Rs. 826.09 crore for the Department of Youth Affairs & Sports, the likely expenditure during 1997-2000 is assessed to be about Rs. 471.90 crore which is 57.12% of the approved outlay. Major schemes under the Department of YA&S are National Service Scheme (NSS), Nehru Yuva Kendra Sangathan (NYKS) and Sports Authority of India.

95. The Department has indicated that the physical targets in most of the schemes were achieved. In case of NSS, NYKS, NSVS the Department of Youth Affairs & Sports has been able to achieve more than the pro-rata achievement during the first two years. There has however, been shortfall in achieving the targets in a few schemes viz. Grants for creation of Sports Infrastructure due to non-receipt of adequate proposals from the State Governments.

96. The Deptt. of Youth Affairs & Sports formulated a scheme known as 'National Reconstruction Corps' (NRC) in the year 1999-2000 for the benefit of youth whose energy needs to be channelised into constructive and productive activities for nation building. This scheme is in operation as a pilot scheme w.e.f. 2000-2001 in eighty districts of the country. Its full scale operation will be made once pilot phase is found to be effective and meaningful.

97. The scheme of Youth Clubs and Sports clubs has been merged into 'Scheme of Assistance to Rural Youth and Sports Clubs', to provide opportunity to rural sports talent to be spotted for further nurturing, to encourage the growth of youth clubs which have been recognised as catalyst of social change.

98. Various schemes of the Deptt. relating to Sports viz. Grants for Games and Sports in Universities/colleges, Grants for Creation of Sports Infrastructure, Support for Supply and Installation of Synthetic Surfaces and Sports Talent Search Scholarship schemes etc. have been revised and financial norms upgraded keeping in view the need and changing circumstances. To encourage sports persons, the scheme of Special Award to Medal Winners in International Sports Events and their Coaches has been revised. The prize money available under the scheme would be in the range of Rs. 0.75 lakh to Rs. 15 lakh.

99. National Service Scheme (NSS) which is a very important scheme for the development of youth of universities and +2 level schools for the development of their personalities through community services is under revision. The programme fund for regular activities and special camping programme will be enhanced. It is also proposed to revise the financial pattern between Centre and Special Category States in favour of these States. The target of volunteers during the IX Plan was fixed at 18 lakh. The number of volunteers registered under the scheme has reached about 14.87 lakh during 1998-99.

Weaknesses in Nehru Yuva Kendras (NYKs) Programme and Corrective Measures to be taken

100. NYKS has been a popular programme among non-student youth, but there have been some weaknesses in the programme. One of the weakest aspects of the NYKS has been the lack of proper linkage with other development activities at the operational level (district/block). The main reasons for limited linkage has been the lack of well defined coordination with other departments and lack of time at the disposal of Collectors of districts. There is therefore need for formulation of guidelines at the planning stage of different rural development programmes in such a way

that the youth clubs which are an organised voluntary association of non-student youth, are involved in the formulation and execution of such programmes. To encourage the participation of weaker sections in the activities of NYKS, the programme contents have to be suitably structured to meet their requirements.

101. NYKS has initiated a process of monitoring and evaluation and thereby getting regular feed back through quarterly progress reports and regular periodic inspections of district NYKs by the authorities. During this period, 162 district NYKS have been inspected by the authorities.

Nehru Yuva Kendra Sangathan : -

102. Some of the major initiatives undertaken by NYKS towards upkeeping better environment are given below : -

Tarun Triveni Van; a tree plantation programme which has been identified with Indian custom and tradition.

Green India Initiative; a novel and innovative scheme of encouraging people, particularly the youth to voluntarily plant trees.

Wildlife watch; programme has been jointly started by NYKS and WWF-India to enable local communities to be vigilant about the existing wild life and also participate in its conservation work. This programme is being implemented in 254 districts of the country.

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103. Grants to Sports Authority of India (SAI) is a major scheme of the Department of Youth Affairs & Sports. SAI implements various schemes for developing sports in the country like National Sports Talent Contest, Army Boys Company's Scheme, Special Area Games Scheme, SAI Training Centre, National Coaching Scheme, Centre for Excellence and Sports Academies.

Suggestions for Development of Sports in the Country : -

104. Although there is some improvement in performance at international events, performance levels at major international events like Olympic Games, are far from satisfactory. The progress of infrastructure development in the States has been slow.

105. There is need to prepare a New Sports Policy where high priority is given for promotion of sports in rural areas and schools through infrastructure development as well as holding of tournaments at block, district, state and national level. In the rural areas, village panchayats and youth and sports clubs need to be mobilised for this purpose.

106. The mass media needs to be mobilised more imaginatively and effectively for introducing a sports culture in the country.

107. The Sports Authority of India should make serious, whole hearted efforts to improve the performance in sports. For excellence in sports, a back up of improved technology is a must along with strengthening of infrastructure as the Sports Institute in Patiala though well equipped still needs modernization and replacement of latest gadgets of sports. Similar is the position in other existing regional centres.

108. Specific efforts should be made for tapping indigenous potential available for swimming in coastal areas, archery in tribal areas etc. Though the Government of India has recognized some rural sports and is encouraging training for the same, the rural sports programmes seems to be very weak and requires more attention. Efforts should be made to encourage rural sportsmen on the lines of Gandhiji's Basic Education.

109. A Rural Advisory Committee on Sports may be set up to advise the Deptt. of Youth Affairs & Sports on these matters. The Nehru Yuvak Kendras should be given the responsibility of encouraging promotion and development of rural sports, identify the rural talented sportsmen and sponsor them for various sports events. The Working of Sports Federations/Associations has to be more transparent, democratic and accountable.

110. Sports Schools may be set up in the States in collaboration with private sector by providing them with attractive incentives.

111. Sports Development Fund may be enhanced with participation of private sector/corporate sector so as to promote sports and development of sports infrastructure.

112. Arrangement may be made for proper maintenance of the sports infrastructure with the help of local bodies, school management etc.

113. Greater emphasis is required for scientific back up to sports persons and upgradation of the skills of coaches. More intensive training is required as well as more incentives; at the same time accountability be fixed for dismal performance. The daily food expenses of the sportsmen requires upward revision as per the recommendation of the study carried out by the National Institution of Nutrition Hyderabad. Presently the money spent on their diet is grossly inadequate.

114. Sports and physical education may be integrated effectively in the education curriculum making it compulsory subject of learning upto secondary level and incorporating it in the evaluation system of the students.

Action Plan for the remaining period of the IX Plan : -

115. The Deptt. of Youth Affairs & Sports as a nodal agency for extending necessary support and dissemination of information to the targetted youth, may work out modalities of net working with other Ministries/Departments for effective and efficient utilisation of resources. Self-employment and entrepreneurship development among youth may be emphasized

116. Community polytechnics and NGOs need to be involved extensively in vocational and training programmes of NYKS in order to provide access to rural and marginalised youth. Assistance to voluntary organisations and self-help groups working in the field of youth programmes may be encouraged. Voluntary organisations may also be encouraged to work in the field of adolescent youth. The youth clubs have to be further strengthened. The question of augmenting resources of National Sports Development Fund with the support of private/corporate sector and community has to be quickly addressed.

117. Concerted efforts must be undertaken to build for adolescents a stable place in society so as to facilitate their healthy development.

118. There is need to take a wider perspective of integrating 'Sports' as a part of the educational system. Similarly, State Governments may also provide 'Additive Provision' for 'Sports' in their education budgets, so that improvement of sports facilities could be made available to youth.

119. The Deptt. of Youth Affairs & Sports should prepare a status paper on all aspects of setting up of sports schools and invite the views of interested persons.

120. A policy for promoting the participation of NGOs and industries for their contribution in sharing resources and sponsored programmes for sports and youth activities may be evolved. The private and public sector units may be encouraged to take up promotion and development of sports infrastructure.

121. There is need to promote Research & Development (R&D) on sports. It is necessary to initiate research on sports medicine using all systems of medicine as equal stress needs to be given to medical fitness of the sports persons. Various State and Non-Governmental Organisations need to be encouraged to build infrastructural facilities for this.

122. The Deptt. of YA&S may formulate a special scheme for the promotion of sports and games among the four categories of disabled persons namely ; a) Blind and Visually handicapped ; b) Deaf and dumb; c) Mentally retarded and ; d) Physically handicapped.

123. There is critical shortage of coaches in this region. Planning Commission suggested, in a recent meeting held with the Deptt. of Sports, that coaches from North Eastern Region itself should be appointed, on contract basis, so that they take more interest in making these sportsmen perform better. The North Eastern Region will continue to receive special facilities for promotion of sports.

CHAPTER 13

EMPOWERMENT OF WOMEN AND CHILD DEVELOPMENT

Introduction

Women and children who represent 67.7 per cent of the country's total population should constitute the most important target groups in the present-day context of developmental planning. Therefore, their concerns are placed on the priority list of the country's development agenda.

EMPOWERMENT OF WOMEN

Commitments of Ninth Plan

2. The Ninth Five Year Plan commits to 'Empower Women' through creating an enabling environment where women can freely exercise their rights both within and outside their homes, as equal partners along with men. This is planned to be realised through *'The National Policy for Empowerment of Women'*, with definite goals, targets and policy prescriptions along with a well-defined *Gender Development Index* to monitor the impact of its implementation in raising the status of women. (See Box - 1).

3. Accordingly, efforts are being initiated by setting up of a Group of Ministers in July, 2000 to examine/finalise the proposal of the formulation of a National Policy on Empowerment of women. The other major step in this direction was to seek 33-1/3 per cent reservation of seats for women, both in the Lok Sabha and in the State Legislative Assemblies. To this effect, a Bill on the subject was introduced in the Lok Sabha in September, 1996. The Bill is yet to be passed.

4. Besides, the Committee on Empowerment of Women, constituted in March 1997 by Lok Sabha to review the progress of empowering women from time to time, a Task Force on Women and Children was also constituted in August, 2000 to review all the related aspects of empowering women, including drafting a programme for celebrating 2001 as the 'Year of Women's Empowerment'. While the Committee on Empowerment of Women has,

Box No. 1
COMMITMENTS OF THE NINTH PLAN (1997-2002)

Objective

Empowering Women as the Agents of Socio-Economic Change and Development

Strategies

- To create an enabling environment for women to exercise their rights, both within and outside home, as equal partners along with men, through early adoption of 'National Policy for Empowerment of Women'.
- To legislate reservation of not less than 1/3 seats for women in the Lok Sabha and in the State Legislative Assemblies and thus ensure adequate representation of women in decision making;
- To adopt an integrated approach towards empowering women through effective convergence of existing services, resources, infrastructure and manpower in both women-specific and women-related sectors;
- To adopt a special strategy of 'Women's Component Plan' to ensure that not less than 30 per cent of funds/ benefits flow to women from other developmental sectors;
- To organize women into Self-Help Groups and thus mark the beginning of a major process of empowering women;
- To accord high priority to reproductive child health services and thus ensure easy access to maternal and child health services;
- To universalize the on-going supplementary feeding programme - Special Nutrition Programme (SNP) and Mid-Day Meals (MDM);
- To ensure easy and equal access to education for women and girls through the commitments of the Special Action Plan of 1998;
- To initiate steps to eliminate gender bias in all educational programmes;
- To institute plans for free education for girls up to college level, including professional courses;
- To equip women with necessary skills in the modern upcoming trades which could keep them gainfully engaged besides making them economically independent and self-reliant; and
- To increase access to credit through setting up of a 'Development Bank for Women Entrepreneurs' in small and tiny sectors.

so far, reviewed the progress of the development schemes for rural women, the Task Force which met on 12 September, 2000 has finalised the programme for celebrating the Women's Empowerment Year.

5. With regard to earmarking funds/benefits under Women's Component Plan, the Planning Commission requested all Central Ministries/Departments and the State Governments to draw up Women's Component Plans. Also, the Minister for Human Resource Development asked Central Ministers for personal intervention to set aside funds/benefits under Women's Component Plan in the plans/programmes of their respective Ministries/ Departments. The nodal Department of Women and Child Development also made a request to Ministries/ Departments to - i) set up Advisory Committees to help them in the preparing the Women's Component Plan; ii) set up a 'Women's Cell' to monitor the implementation of Women's Component Plan; and iii) include a chapter on Women's Component Plan in their Annual Reports. According to information available, 12 Central Ministries/ Departments viz., Health and Family Welfare, Education, Labour, Agriculture, Urban Affairs and Employment, Rural Development, Social Justice and Empowerment, Textiles, Industries, Non-Conventional Energy Sources, Science and Technology and Information & Broadcasting have confirmed their efforts of extending benefits for women under Women's Component Plan. While the State Governments of Karnataka, Kerala, Gujarat and Himachal Pradesh have made bold initiatives of earmarking funds for Women's Component Plan; Rajasthan is also trying to follow the path very soon.

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6. Although, it would be very difficult to quantify the efforts of various Ministries/Departments in terms of allocations, yet the flow of benefits to women from the core sectors of health and family welfare, education, labour and employment, rural development, urban development, agriculture, science and technology etc. can be easily enlisted, as reflected in the respective chapters of this document. Efforts have already been on for preparing a Gender Development Index to assess the impact of various policies and programmes in improving/raising the status of women at regular intervals. A set of 18 Developmental Indicators have been identified and the same are being field-tested to find out the feasibility of data being available at the district level on a regular basis. Results are still awaited from the respective State Governments. The Committee on Empowerment of Women referred to above, also *inter-alia,* reviews the implementation of the progress of the Women's Component Plan

Review of Policies and Programmes

7. The nodal Department of Women and Child Development, responsible for empowering women, formulates policies and programmes; enacts/amends legislation concerning women; and reviews, guides and coordinates efforts of governmental and non-governmental organizations. In addition, the Department implements a few innovative programmes, which include **- i)** empowering strategies; **ii)** employment and income generation; **iii)** welfare and support services; **iv)** awareness generation and gender sensitization; and **v)** other enabling measures. These programmes are supplementary/complementary to other general developmental efforts for women. Progress of some of the important on-going programmes is given below:

i) Empowering Strategies

8. *Indira Mahila Yojana (IMY)* launched in 1995-96 aims to empower women through the following i) generating awareness amongst women by disseminating information and knowledge; ii) helping women achieve economic strength through micro-level income-generating activities; and iii) establishing convergence of various services such as literacy, health, non-formal education, rural development, water supply, training for capacity building and entrepreneurship. More than 37,000 homogeneous women's groups were set up by the end of 1997.

9. In 1997, while considering expansion of IMY, the Planning Commission suggested that a Joint Study Team of the officers of the Department of Women and Child Development and the Planning Commission undertake a quick evaluation of IMY's working. Accordingly, a study on a sample basis was conducted in the States of Goa, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.The evaluation, inter-alia, revealed certain deficiencies even though it found IMY had the potential to use women's groups as an instrument of women's empowerment. The deficiencies covered lack of training, funding for income generation, convergence of services and lack of animators. Taking into consideration the weaknesses pointed out by the study, IMY was being recast to fill the gaps through additional components of income generation, training for capacity building; provision for 'forward and backward' linkages; and tie-ups with Rashtriya Mahila Kosh (RMK) for credit services. Merged with the programme of Mahila Samriddhi Yojana, the re-cast IMY promises to be an effective instrument for empowering women, socially and economically, besides organising them into Self-Help Groups to form a strong institutional base.

10. The Rural Women's Development and Empowerment Project (RWDEP), now called *Swa-Shakti,Project* is yet another governmental intervention which is already put to test in Tamil Nadu and found successful in empowering women through awareness

generation and income generation. The project is being replicated in Bihar, Haryana, Gujarat, Karnataka, Madhya Pradesh and Uttar Pradesh with the assistance from IDA and International Fund for Agricultural Development (IFAD). Women's Development Corporations and Non Governmental Organisations (NGOs) in these States are actively associated in implementing the programme. As the project is still in its infancy, it is too early to assess its impact.

ii) Employment and Income Generation

11. The programme for Support for Training and Employment (STEP), provides a comprehensive package for up-gradation of skills through training, extension inputs, market linkages, etc, in traditional sectors such as agriculture, dairying, handicrafts, handlooms, animal husbandry, sericulture and fisheries. Since the inception of STEP in 1987, till date, about 4,48,245 women have benefited from 86 projects, in the States of Andhra Pradesh, Bihar, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Manipur, Nagaland, Orissa, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. Of the total coverage, 3.11 lakh women belonged to dairy sector, followed by 29,500 under seri-culture, 18,686 under handlooms, 16000 under handicrafts and the rest of the 13,059 under fisheries, poultry, horticulture, carpet weaving, knitting, goatbreeding, piggery, mushroom cultivation, book binding, etc. Efforts are now being made to merge STEP with three other on-going schemes: i) Norwegian Agency for International Development (NORAD), which assists Training-cum-Production Centres that train poor and needy women in the age-group 18-45 years in up-coming non-traditional trades; ii) socio-economic programme which provides 'work and wage' to needy women such as destitutes, widows, deserted, disabled etc; and iii) Condensed Courses of Education and Vocational Training which open up new vistas of employment through continuing education and vocational training for school drop-outs, thus bringing out an umbrella scheme of 'Training and Employment for Women.'.

iii) Welfare and Support Services

12. Support services to working women are being extended through the programme *Hostels for Working Women* (HWW) which aims to promote greater mobility for women in the employment market by providing them safe and cheap accommodation to suit the lower income strata they belong to. Since inception of the Scheme in 1973 till 2000, 841 Hostels have been sanctioned to accommodate 59,600 working women. Of these, 78 Hostels have been sanctioned during 1997-2000 to house 7,486 working women and their dependent children. The programme has already undergone a number of successful evaluations during the 25 years of its implementation. The last being the nation-wide study in 1998 by the Tata Institute of Social Sciences, Mumbai, has suggested expansion of the scheme to meet an increasing demand for such facilities. The Master Plan of Operations (MPO) prepared by the Department in 1992 also indicated the need to provide hostel accommodation for about 1.35 lakh working women throughout the country. Not even half of this target could be achieved. The two other support services are: i) Integrated Child Development Scheme (ICDS) through its nation-wide networking of 6 lakh anganwadi centres and ii) creches/day-care centres for working and ailing mothers. Details of these two programmes are given under the section 'Development of Children' in this Chapter.

13. The welfare programme of *Short Stay Homes (SSH)* for Women and Girls has been under implementation since 1969 to protect and rehabilitate those who are in social and moral danger due to breakage of families, mental strain/stress, social ostracism, exploitation, etc. During the year 1999-2000, the financial pattern and norms under the scheme were revised as a mid-term correction during the Ninth Plan. At present, there exist 357 SSHs benefitting about 12,000 women/girls. The SSH scheme was evaluated in 1998 by Programme Evaluation Organisation (PEO) of the Planning Commission. Based on their recommendations, the scheme has been transferred to Central Social Welfare Board (CSWB) to develop linkages/get merged with a like scheme called

Box No 2

MICRO-CREDIT FOR WOMEN THROUGH RMK

Rashtriya Mahila Kosh (RMK) set up in 1993, extends micro-credit to poor and assetless women in the informal sector through the medium of NGOs. Since the inception of RMK, a total credit worth Rs. 77.36 crore was sanctioned benefiting 3.5 lakh women through the 688 channelising NGOs, spread all over the country. The recovery rate of RMK was as high as 95 per cent. RMK with its success stories could raise its original corpus of Rs.31.00 crore to Rs. 48.06 crore within a period of five years. In the process of expanding scope of its activities, RMK has been developing linkages with the Self-Help Groups coming up under the programme of IMY.

Family Counselling Centres launched to help families on the verge of a break-down.

iv) Awareness and Gender Sensitization

14. The Ninth Plan attaches great importance to efforts that trigger changes in societal attitudes to women and the girl child. An integrated media campaign projecting a positive image of both women and the girl child through electronic, print and mass media forms the most important component of the government's communication strategy. Also, a set of 10 *Legal Literacy Manuals* were brought out in 1992 with the aim of educating women about the laws protecting their basic rights. These Manuals are simple and illustrated, therefore even semi-literates and neo-literates can easily comprehend the message. The manuals have been distributed to all the State Governments and NGOs for wider dissemination and they are also being translated into other Indian languages.

v) Other Enabling Measures

15. *Rashtriya Mahila Kosh (RMK)* is a national-level mechanism to meet micro- credit needs of poor and asset-less women in the Informal Sector. From its inception in 1993 till date, RMK has sanctioned credit totaling Rs.77.36 crore; it has benefited 3.5 lakh women through 688 NGOs spread all over the country. During the period under this appraisal, a total credit of Rs.43.56 crores was extended to 1.68 lakh women. RMK has been maintaining a very creditable recovery rate of 90 to 95 per cent. To expand its credit services, RMK also ventured to develop an institutional base at the grass-root levels through Self-Help Groups (SHG). In this process, it also started developing linkages with the existing Women's Groups of IMY and Development of Women & Children in Rural Areas (DWCRA). For expansion of these activities, RMK needs financial support from the Government.

16. The National Commission for Women was set up in 1992 with a mandate to safeguard the rights and interests of women. The Commission has continued to pursue its mandated activities through legal awareness programmes; looking into the individual complaints/pre-litigations, sexual harassment of women at work place; organising 'Parivarik Mahila Lok Adalats' with the help of local NGOs and Legal Aid Boards; reviewing existing legislations and preparation of new Bills relating to Prevention of Inter-Country trafficking in South Asian region; framing rules under Dowry Prohibition Act of 1961, etc. The Commission accords highest priority in securing speedy justice to women.

Box No.3

NATIONAL COMMISSION FOR WOMEN

The National Commission for Women (NCW), set up in 1992, has a mandate to safeguard the rights and interests of women. The Commission continued to pursue its mandated activities, namely safeguarding women's rights through investigations into the individual complaints of atrocities; sexual harassment of women at work place; conducting Parivarik / Mahila Lok Adalats, legal awareness programmes/camps; review of law and legislations etc. The other activities of the Commission include campaigning against gender-based violence in India. The Commission also took up the development of special womens groups viz., widows, women in custody and mentally ill, destitute etc. It also prepared two draft Bills viz – i) SAARC Regional Convention for Prevention and Combating Trafficking in Women and Children; and ii) framed Rules under Section 9(b) and Section 10 of the Dowry Prohibition Act 1961 for consideration of the Government, besides advising the Government on various issues including legal and developmental matters.

Among its the success stories, the Commission appealed to all States to allot Fair Price Shops to women co-operatives or to needy women on a priority basis and several Chief Ministers responded favourably by allotting such Shops to women; Recommended that the Tenth Finance Commission set up an Expert Group to evolve strategies to facilitate women's political empowerment as one of the criteria for devolution of funds from the Centre to States; Requested the State Governments to reserve a certain percentage of resources for women even at the village level in programmes such as water supply, health services, nutrition, sanitation, etc.; Organised a workshop on 'Gender Perspective for the Electronic Media' urging them to revise their guidelines to eliminate gender-stereotyping and negative portrayals of women and modifying their policy to serve the cause of women's advancement; Reviewed the functioning of women cells in Governmental Organisations and issued fresh guidelines to reactivate the cells and get the Government organizations to reserve 30% of the posts for women at all levels — in the Government, Public Sector undertakings, Universities and other autonomous bodies.

Review of Legislation

17. The National Commission for Women, as per its mandate, has started reviewing all the 39 legislations which have a bearing upon women. So far, it could complete review of 14 legislations. Based upon their recommendations, the nodal Department of Women and Child Development, in consultation with the Ministry of Law & Justice and Home Affairs, has initiated action to

amend the following - **i)** the Commission of Sati (Prevention) Act, 1987; **ii)** Immoral Traffic (Prevention) Act, 1956; **iii)** Indecent Representation of Women (Prohibition) Act, 1986 ; **iv)** Child Marriage Restraint Act, 1929 ; **v)** Guardians & Wards Act ; **vi)** Family Courts Act ; **vii)** Foreign Marriage Act ; **viii)** Amendment in IPC relating to Rape. Besides, the nodal Department has also initiated drafting of the Prevention of Domestic Violence against Women Bill. The National Commission for Women is re-considering the amendments proposed in the Dowry Prohibition Act, 1961 and is in the process of holding nation-wide debates/consultations.

Monitoring Beneficiary-Oriented Schemes (BOS)

18. At the instance of the Prime Minster's Office , the nodal Department of Women and Child Development monitors the progress of implementation of 27 Beneficiary-Oriented Schemes (BOS) for Women through the mechanism of Inter-Ministerial Review Meetings. Based on the findings of the review, the nodal Department plays an interventionist role with the help of PMO in removing obstacles/impediments and thus improve the implementation of the 27 BOS. Status Reports, prepared by the nodal Department forms the base for follow-up action by individual Ministries/Departments. The review of the 27 BOS reveals: - i) an outlay of Rs. 20,686.70 crore representing 2.4% of the total public sector outlay is available in the Ninth Plan for empowering women; ii) of this, while Rs. 12,878.28 crore (62.3%) flow from six women-related Ministries/Departments, the remaining Rs.7,810.42 crore (37.7%) comes from one single Department of Women and Child Development. This justifies the fact that the Women's Componenet Plan needs to be concretized right from the very beginning of formulation /launching of every Plan to see that benefits from other developmental sectors do not by-pass women.

DEVELOPMENT OF CHILDREN

Commitments of Ninth Plan

19. The Ninth Plan reaffirms its priority for the development of early childhood as an investment in the country's human resource development. While the first six years are acknowledged as most critical in the development of children, greater stress will be laid on younger children below two years. To this effect, two National Plans of Action - one for Children and the other exclusively for the Girl Child (adopted in 1992) — will provide the guidelines underlining the importance of *'Survival, Protection and Development'*. Efforts in the Ninth Plan will, therefore, be made to expedite effective implementation and achievement of the goals set in the two Plans of Action. To realize this, the Ninth Plan proposes adoption of certain inter-ministerial strategies covering both the child -specific and child- related sectors (See Box - 4).

Box No. 4

COMMITMENTS FOR DEVELOPMENT OF CHILDREN

Objectives

- To place the Young Child at the top of the country's Developmental Agenda with a Special Focus on the Girl Child, and
- To re-affirm its priority for the development of early childhood services as an investment in country's Human Resource Development.

Strategies

- To institute a National Charter for Children ensuring that no Child remains illiterate or hungry or lacks medical care;
- To continue to lay a special thrust on three major areas of child development viz. health, nutrition and education;
- To ensure 'Survival, Protection and Development' through the effective implementation of the two National Plans of Action - one for the Children and the other for the Girl Child;
- Acknowledge that the first six years as critical for the development of children, therefore, greater stress will be laid on reaching the younger children below two years;
- To universalize ICDS as the mainstay of the Ninth Plan for promoting the overall development of young children, especially the Girl Child and mothers all over the country;
- To arrest the declining sex ratio and curb its related problems of female foeticide and female infanticide;
- To bring down the Infant Mortality Rate (IMR) to less than 60 and the Child Mortality Rate(CMR) to below 10 by 2002 by offering easy access to health care services including Reproductive Child Health(RCH) services and 100% coverage of immunization in all vaccine preventable diseases;
- To universalize Nutrition Supplementary Feeding Programmes to fill the existing gaps in respect of both pre-school and school children and expectant and nursing mothers with a special focus on the Girl Child and the Adolescent Girl;
- To promote the nutritional status of the mother and the child by improving the dietary intake through a change in the feeding practices and intra-family food distribution;
- To strengthen the early joyful period of play and learning in the young child's life and to ensure a harmonious transition from the family environment to the primary school;
- To view girl's education as a major intervention for breaking the vicious inter-generational cycle of gender and socio-economic disadvantages;
- To expand the support services of crèche / day-care services and to develop linkages between primary schools and child care services to promote educational opportunities for the Girl Child;
- To expand the scheme of Adolescent Girls in preparation for their productive and re-productive roles as confident individuals not only in family building but also in nation building;
- To widen the scope and the spectrum of child development services with necessary interventions related to empowerment of women and children, families and communities through effective convergence and coordination of various sectoral efforts and services.

Review of Policies and Programmes

20. Efforts are being made to strengthen the on-going approach of converging the basic services of health, nutrition and pre-school education towards promoting a holistic development of the young child through Integrated Child Development Scheme (ICDS). As a nation-wide programme, ICDS continues to be a major intervention for the overall development of children. It caters to the pre-school children below six years and expectant and nursing mothers with a package of services viz. immunization, health check-ups, referral services, supplementary nutrition, pre-school education and health and nutrition education.

21. Universalisation of ICDS was contemplated by the end of 1995-96 through expanding its services all over the country. Of the 5614 ICDS projects sanctioned till 1996, only 4200 became operationalised by the end of Eighth Plan and the position continued even during first two years of the Ninth Plan. However, the process of universalisation will continue during the Ninth Plan till all the 5614 projects become operationalised. The total number of beneficiaries has risen from 16.6 million in 1992 to 32.1 million in March 1999, which include 26.5 million children and 5.6 million expectant and nursing mothers (See Box No – 5).

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Box No. 5

TOWARDS UNIVERSALISATION OF ICDS

ICDS - launched in 1975 - is a nation-wide programme for the overall development of children below 6 years and of the expectant and nursing mothers. It provides a package of 6 services viz., supplementary feeding, immunization, health check-ups, referral services, pre-school education and health and nutrition education for its beneficiaries. Of the total 5614 ICDS Blocks, only 4200 Blocks could be operationalised by 1999-2000, benefiting 26.5 million children and 5.6 million mothers. The same level continued along with a special coverage of 3.51 lakh Adolescent Girls in 507 ICDS blocks. ICDS also receives assistance from the World Bank to add some additional inputs. During the Ninth Plan period , efforts are being made to expand the programme to another 851 Blocks (461 under the World Bank assisted ICDS and 390 under General ICDS), as part of the universalisation of ICDS.

22. The World Bank-assisted ICDS programme has also been in operation since 1990-91 apart from providing the normal ICDS package. World Bank extends assistance for a few additional inputs like construction of Anganwadi buildings and Child Development Project Officer (CDPOs) office-cum-godowns on a selective basis, strengthening of training and communication, improved health facilities and income-generation activities. While a first WB-ICDS Project-I (1991-97) covered 301 ICDS projects in the States of Andhra Pradesh (110) and Orissa (191), the WB-ICDS Project II (1997-2000) would be covering 454 projects in the States of Bihar (210) and Madhya Pradesh (244). The WB-ICDS Project III (1998-2004) started in 1998-99 and it proposes to cover 461 projects in the States of Andhra Pradesh, Kerala, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. The programme in Andhra Pradesh is being implemented as part of a larger Andhra Pradesh Economic Reconstruction Programme (APERP).

23. The impact of ICDS, which would be completing 25 years of its implementation in October 2000, was evaluated by a number of individual experts and various research organisations. Of these, the National Evaluation of ICDS conducted by the National Institute of Public Co-operation and Child Development (NIPCCD), New Delhi, in 1992 and the Mid-term Evaluation of World Bank-assisted ICDS need special mention. The findings of the NIPCCD study indicate a very positive impact of ICDS on the health and nutrition status of pre-school children. The Mid-term evaluation of the World Bank assisted ICDS (Project-I) conducted in Andhra Pradesh during 1995-96 also revealed that the Project interventions had brought down the IMR to 62 per 1000 live births which was in consonance with the project objective of 60 per 1000 live births. The incidence of severe malnutrition amongst children of 0-3 years was reduced to about 5 per cent and that of 3-6 years to 3 per cent. The proportion of low birth weight babies also came down to 20 per cent as against the project goal of 24 per cent. Similarly, in Orissa, the IMR had come down to 93.6 and the incidence of low birth weight babies to 23 per cent.

24. ICDS, as it stands today, reaches out to 90 per cent of the community development blocks in the country. Keeping in view the goals set in the National Plan of Action for Children to be achieved by the year 2000 AD, it is necessary to ensure universalisation of ICDS at the earliest possible. However, in view of the resource constraint, the Department has proposed to operationalise only 851 additional projects during the Ninth Plan and that too in a phased manner. The following Action Points will receive special attention during the remaining period of the Ninth Plan, keeping in view the future prospects of ICDS:

- Special efforts to ensure adequate funds for supplementary feeding of ICDS by all the States/Un;ion Territories (UTs) as there exists a large gap of around 50 per cent between the 'need' and 'supply'. ICDS becomes meaningful only when the funds for food supplementation from States/UTs get synchronized with the funds contributed by the Central Government towards maintenance of the super-structure for operation and supervision of ICDS.

- The Adolescent Girls Scheme which has been launched to take care of the specific needs of the adolescent girls has been in operation in 507 blocks. It is proposed to cover 1493 additional blocks during the Ninth Plan period.
- The concept of mini-anganwadi (four mini-anganwadi centres can be opened in lieu of full fledged anganwadis) is flexible enough to take care of the sparse population in remote hilly areas dominated by tribals. The process will continue during the Ninth Plan.
- Other innovative activities include models for community participation; integration of the scheme with the activities of Department of Indian Systems of Medicine & Health (ISM&H); strengthening of MIS of ICDS in States; improved service delivery by providing IFA and vitamin 'A' supplementation to adolescent girls; quality improvement at anganwadi centres; strengthening women's component; action research projects aimed at improved nutritional level, inter-State coordination and consultation for devising replicable innovative models and area/project specific intervention for tackling early childhood disabilities etc.

25. An ever growing burden of ICDS has already disturbed the budgetary balance between the development of women and the development of children. As of date, ICDS alone claims 82.9% (Rs.6,473.08 crore) of the total budget of the Department. It is, therefore, necessary to start transferring the ICDS projects to State sector in a phased way. To start with, it would be ideal to transfer 2428 projects - the level of achievement by the end of the Seventh Plan. However, while considering the proposal for expansion of ICDS in December, 1999, it emerged that the performance of the Scheme in some of the States had been very low as they had not contributed sufficient counter-part funds for nutritional component of ICDS. Suitable modifications in the programme with respect to these States in this context are being explored to correct this deficiency.

26. *UDISHA* is an effort to strengthen the on-going ICDS Training Programme into a dynamic, responsive and comprehensive training-cum-human resource development programme. For its implementation, World Bank has agreed to extend financial assistance to the extent of Rs.600.55 crore. The National Institute of Public Cooperation and Child Development, New Delhi, with its nation-wide network of 3 Regional Centres, 18 Middle Level Training Centres (MLTCs) and 300 Anganwadi Workers Training Centres (AWTCs) is set to implement UDISHA. During first 3 years of the Ninth Plan, 1157 CDPOs/ ACDPOs (Assist and Child Development Officer), 3072 Supervisors and 97353 Anganwadi workers were trained.

27. The Scheme of *Balika Samriddhi Yojana (BSY)* originated from an announcement of the Prime Minister on 15 August 1997 promising financial help by the Government for the families to whom a girl child is born and if they are living Below Poverty Line (BPL). Later, scholarships would also be given when the girl child goes to school. Accordingly, a programme of Balika Samriddhi Yojana was launched on 2 October 1997 to extend a post-delivery grant of Rs.500/- for the mother of the Girl Child belonging to the BPL Group. For this, the Government released an ad-hoc grant of Rs.60 crore to cover 12 lakh girl children in the financial year 1997-98 (See Box No 6).

Box No.6

Balika Samridhi Yojana (BSY)

- BSY - a special intervention to raise the overall status of the Girl Child - promises a post-delivery grant of Rs.500/- to be deposited in an interest-bearing account in the name of the girl child with the nearest bank/post office; and
- Scholarships for each class of study successfully completed by her, ranging from Rs.300/- for Class I to Rs.1000/- for Class X. The amount of Scholarship will also be deposited in the same interest-bearing account ;
- The accumulated value of the deposits in the account will be payable to the girl child on her attaining the age of 18 years and having remained unmarried till then

28. To make the programme more effective, a Group of Ministers reviewed the implementation of the programme in 1999. Based on their recommendations, the programme was recast as a Centrally Sponsored Scheme with the following features: - i) instead of payment in cash, a post-delivery grant of Rs.500/- per girl child, upto two girl children (born on or after 15 August, 1997) will now be deposited either in Bank / Post Office in an interest-bearing account in the name of the girl child. Withdrawal of a portion of the post-birth grant of Rs.500/- or the amounts of the annual scholarships eligible for deposit may be permitted to be applied for paying premium on an insurance policy in the name of the girl child under the Bhagyashree Balika Kalyan Bima Yojana. Such a utilization may be permitted with due authorization of the mother/guardian of the girl ; ii) Annual scholarships would also be given to the girl child when she starts going to school. The rate of scholarships will be Rs.300 each in classes I-III, Rs.500 in class IV, Rs.600 in class V, Rs.700

each in classes VI and VII, Rs.800 in class VIII and Rs.1000 each in classes IX and X per annum. The scholarship amount can also be deposited in the same account (where the post-delivery grant has been kept) at the option of the guardian of the Girl Child. These deposits will be paid to the girl child on attaining the age of 18 years and remaining unmarried till then. The amount of scholarships can also be paid in kind at the discretion of the guardian of the girl child. The Recast BSY with the above revisions was being put into action during 1999-2000.

29. The scheme of Creches and Day Care Centres for children of working/ailing mothers, a non-expanding scheme, maintained the same level of 12470 creches benefiting 3.12 lakh children. However, to meet the growing demand for more creches, a National Creche Fund (NCF) was set up in 1994 with a corpus of Rs.19.90 crore received under Social Safety Net. NCF extended financial assistance for the opening of creches besides conversion of the existing Anganwadis into Anganwadi-cum-Creches. Under the NCF, 2,455 creches were added benefiting about 0.61 lakh more children. A wider expansion of Creche/ Day-care services under NCF is envisaged during the Ninth Plan.

Review of Legislation (child-specific & child-related)

30. A thorough review of all the existing child-specific and child-related legislations needs to be undertaken to plug loopholes in their implementation. Simultaneously, every effort needs to be made to protect children from all types of exploitation through strict enforcement of the existing legislations viz. the Immoral Traffic (Prevention) Act, 1956 (as amended in 1986) to check child prostitution; the Juvenile Justice Act, 1986 to remove maladjustment and ensure rehabilitation of juvenile delinquents in the family and society; the Child Labour (Prohibition and Regulation) Act, 1986 to eliminate child labour; the Hindu Succession Act, 1956 as amended in 1993 to ensure equal rights to the girl-child in the property of parents; and Compulsory Registration of Marriages and Minimum Age of Marriage to avoid child marriages etc. Enforcement of the Indian Penal Code, 1860 and the Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994 should receive a special attention to arrest the increasing incidence of Female Foeticide and Female Infanticide.

WOMEN AND CHILDREN

Impact of Policies and Programmes

31. The impact of various developmental policies and programmes and the efforts put in by both governmental and non-governmental organisations over a period of time in empowering women and development of children, have brought forth a perceptible improvement in the status of women and children, as reflected in the following 21 selected Gender Development Indicators.

Issues / Concerns

32. No doubt, the mid-term appraisal has heiped list out several quantifiable gains/achievements in the sector, but the appraisal has also brought into surface many critical issues concerning women and children, especially those of the Girl Child, as discussed below:

33. The burden of poverty upon women has been increasing as they are more vulnerable to the extremes of poverty and its consequences. For poor households, the woman's capacity to work, her health, knowledge and skill endowments are often the only resources to fall back upon for survival. In other words, the poorer the family, the more the dependency upon the woma's earnings. Around 30% to 35% of rural households are estimated to be headed by women and dependent exclusively on their income. Women are thus critical to the processes of moving their families out of poverty. Therefore, they require special attention as extreme poverty by definition implies low absorptive capacity for development programmes.

34. Women also continue to be the most 'invisible,' despite their high levels of contribution to the national economy. As per the 1991 Census, more than 90 per cent of women continue to struggle in the informal/unorganized sector with no legislative safeguards. As a result, they are deprived of minimum / equal wages. The prevailing social constraints of gender largely relegates women to the inside sphere. Adding to this are the dual responsibilities of women tagged with heavy work responsibilities in agriculture, animal husbandry and other traditional sectors which create a syndrome of gender stereotypes, marginalisation, alienation and deprivation of women in the informal sector. In the 1991 census, the Government made efforts to capture data on women's work in the informal sector; that effort needs to be intensified in the Census of 2001 as well. Further, efforts are also needed to extend both legislative and welfare cover to women — especially minimum and equal wages to them — so as to control/eradicate their exploitation in the informal sector besides improving their working conditions.

35. Although the Infant Mortality Rate (IMR) , Child Mortality Rate (CMR) and Maternal Mortality Rate (MMR) have been showing a very steady declining trend during the last decade, these rates are still very high when compared to many other developing countries. Adding to this is the most disturbing feature brought out by Sample

Select Developmental Indicators Relating to Women and Children *

S.N. (1)	Indicators (2)	Women (3)	Men (4)	Total (5)	Women (6)	Men (7)	Total (8)
	Demography						
1	Population (in million in 1971 & 1991)	264.1	284.0	548.1	407.1	439.2	846.3
2	Decenneial Growth (1971 & 1991)	24.9	24.4	24.6	23.2	23.8	23.5
	Vital Statistics						
3	Sex Ratio (1971 & 1991)	930	-	-	927	-	-
4	Expectation of Life at Birth (1971 & 1996-2001)	50.2	50.5	50.9	63.4	62.4	-
5	Mean Age at Marriage (1971 & 1991)	17.2	22.4	-	19.3	23.9	-
	Health						
6	Birth Rate (1971 & 1998)	-	-	36.9	-	-	26.5
7	Death Rate (1970 & 1998)	15.6	15.8	15.7	8.8	9.2	9.0
8	Infant Mortality Rate (1978 & 1998)	131	123	127	74	70	72
9	Child Mortality Rate (1970 & 1997)	55.1	51.7	-	24.5	21.8	23.1
10	Maternal Mortlity Rate (1980 & 1998)	468	-	-	407	-	-
	Literacy and Education						
11	Literacy Rates (1971 & 1991)	7.9	24.9	16.7	39.3	64.1	52.2
12	Gross Enrolment Ratio (1990-91 & 1998-99)						
	- Classes I-V	85.5	113.9	100.1	82.9	100.9	92.1
	- Classes VI – VIII	47.8	76.6	62.1	49.1	65.3	57.6
13	Drop-out Rate (1990-91 & 1998-99)						
	- Classes I – V	46.0	40.1	42.6	41.2	38.6	39.7
	- Classes I – VIII	65.1	59.1	60.9	60.1	54.4	56.8
	Work and Employment						
14	Work Participation Rate (1971 & 1991)	14.2	52.8	34.3	22.3	51.6	37.7
15	Organised Sector(No. in lakhs in 1971 & 1997)	19.3 (11 %)	155.6	174.9	43.9 (15.9%)	231.8	275.7
16	Public Sector (No. in lakhs in 1971 & 1997)	8.6 (8 %)	98.7	107.3	26.1 (13.8%)	162.6	188.7
17	Government (No. in lakhs in 1981 & 1996)	11.9 (11 %)	97.1	109.0	15.0 (13.9%)	92.7	107.7
	Decision Making (Administrative & Political)						
18	Administration (IAS & IPS in 1987 & 2000)	360 (5.4%)	6262	6622	645 (7.6%)	7815	8460
19	PRIs (No. in lakhs in 1995 & 1997)	3.18 (33.5%)	6.30	9.48 @	8.14 (31.3%)	17.84	25.98
20	Parliament (No. in 1989 & 1999)	47 (6.1%)	721	768	67 (8.4%)	723	790
21	Central Council of Ministers (1985 & 1999)	4 (10%)	36	40	8 (10.9%)	65	73

@ Refers to 1995 in respect of States namely Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Punjab, Rajasthan, Tripura and West Bengal

Note: Figures in paranthesis indicate the percentage to the total and year of the data in respective columns. Although, efforts were made to keep a common 'base' and a common 'comparable' but the same could not be kept up because of the limitations in the availability of data and other practical problems

* The years given in the parenthesis refers to the Year of the Data in columns 3,4 &5 and 6,7 & 8 , respectively

Source: (1) SRS Bulletin 2000, Registrar-General of India, Govt. of India, New Delhi

(2) Employment Exchange Statistics 1996-97, DG-E&T

(3) Women in India - A Statistical Profile, 1997, Dept. of Women and Child Development, M/o HRD, New.Delhi

(4) Selected Educational Statistics 1997-98, D/o Education., M/o HRD, New. Delhi.

(5) Annual Report, 1999-2000. Departments of Elementary & Literacy and Secondary & Higher Education, Ministry of HRD, Government of India.

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Registration System (SRS) of 2000 focussing on a slight increase in Infant Mortality Rate (IMR) from 71 per 1000 live births in 1997 to 72 in 1998. Though it was a very insignificant change, yet this reverse in trend is a major cause for concern. Ten major States viz. Andhra Pradesh, Assam, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa and Punjab have shown an increasing trend. This demands careful investigation of the factors responsible for such a situation and effective action to intensify measures for new-born care and institutional delivery systems since the emergence of a reverse trend can not be compromised with, especially at a time when the IMR is expected to go down further. MMR which also stands at a very high rate of 407 deaths per 1,00,000 live births (1998) needs special attention on priority basis through wide-spread coverage of RCH services.

36. Malnutrition and its related deficiencies and diseases amongst children and mothers especially with the girl child have become a big threat to their development potential. Surveys conducted by the National Nutrition Monitoring Bureau of Hyderabad in 1989-90 reported that more than 52.5 per cent of children in the age-group of 1-5 years and 49.3 per cent women suffered from various chronic energy deficiencies and 87.5 per cent of pregnant women were anaemic in various degrees during 1989-90. The ICDS programme which was launched to take care of these problems amongst children and mothers could not extend its coverage throughout the country. By the end of 1999, 1414 Blocks still remain uncovered. Action should, therefore, be initiated to expedite universalisation of ICDS in all of country's 5614 Blocks. Also, immediate measures are required to ensure that adequate allocations are made available to re-enforce the supplementary feeding services in all 6 lakh Aganwadis as per prescribed norms, both in quality and quantity.

37. Gender discrimination which is reflected in an ever declining sex ratio of 946 females per 1000 males in 1951 to 927 in 1991 illustrates the survival scene of both women and the girl-child in India. The adverse sex-ratio and its decline since 1901 is attributed mainly to higher mortality among females, as compared to males, in all age groups right from childhood through child-bearing ages. Limited access to health care services contributing to high maternal mortality and relative deprivation of the female child from nutrition, health and medical care have also been identified to be some of the other contributory factors. Interventions to this effect have been in progress.

38. Related to the problem of gender bias and the persistent discrimination against the girl child are the harmful practices of female foeticide and female infanticide leading to the un-wanted abortions and the present high rates of IMR / MMR. The sample studies sponsored by the Department of Women and Child Development in 1993-94 confirm that while female foeticide is widespread and rampant in the urban areas, female infanticide continues to be prevalent as a localized/ community-based phenomenon in the States of Tamil Nadu, Madhya Pradesh, Bihar, Rajasthan, Punjab and Haryana. As per the 1991 Census, 65 districts in these States have been identified as "problem districts," as the sex-ratio stood abnormally in favour of males with 1100 to 1218 males for 1000 females. These demographic imbalances require immediate attention of the Government. Action needs to be initiated to enforce both IPC and the Pre-natal Diagnostic Technique (Regulation and Prevention of Misuse) Act, 1994 effectively to control / eradicate female foeticide and female infanticide, respectively with very close vigil and surveillance along with severe punishment for the guilty. Along with this, the long-term measure of sensitizing the society to change their mind-set which is negatively disposed towards the girl child as she has become unwanted, neglected and discriminated both within and outside her home, is also very important.

39. The increasing violence against women is yet another manifestation of their low and unequal status and poses a big threat to their development. Violence against women and the girl-child, both domestic and at work-place, has been showing an alarming trend especially during the recent past. As per the latest data (1998) published by the National Crimes Record Bureau, New Delhi, there was an increase of 8.3 per cent in the number of crimes committed against women between 1997 and 1998. While the total number of cases registered under IPC stood at 1.31 lakh, torture claimed the highest share of 31.5 per cent; followed by molestation (23.6%); kidnapping and abduction (12.5%); rape (11.4%); sexual harassment (6.2%); dowry death (5.3%) and others (9.5%). Amongst the States, Uttar Pradesh reported the highest incidence of 13.3% of the total crimes, Madhya Pradesh (12.1%) and Maharashtra (10.9%). Delhi which shares 1.3% of the country's total population, accounts for 1.9% of the total crime, and reports the third highest crime rate in the country with 19.6 (number of crimes per one lakh population) , while the all India crime rate stands at 13.5. Violence against women needs to be addressed on a top priority basis with a well planned Programme of Action (POA) with both short and long-term measures. Discussion with activists suggests that violence against slum women can be reduced drastically if the housing patta and the ration card is in their names. The situation also demands activating the enforcement machinery, besides bringing some necessary amendments both in the Indian Penal Code and in other related legislations to make the punishment more stringent. Initiating efforts in close

collaboration with committed NGOs to bring forth societal re-orientation is yet another important area for intervention. The National Commission for Women should play a lead role in combating the increasing violence against women and the girl child.

40. Adding to the serious problems listed above, lack of education and training, information and awareness generation and low rates of literacy (31.3%) aggravate the situation of deprivation of women and exclude them from political, social and economic processeses and also from decision-making process. As per the 1991 census, women's work participation is as low as 22.3% as their contribution in the informal sector is neither recognized nor finds a place in the official records. Further, while their representation in the organized sector is only 15.9% (1997) , they are 13.8% (1997) in the public sector; 13.9% (1996) in the Government; and 7.6% (2000) in administrative decision-making and 10.9% (1999) in political decision-making. No doubt, they represent 31.3% (1997) in Panchayats against the 33 1/3% reservation for women. When more and more women are positioned at various levels of decision making, it is bound to have a definite impact on public policy in favour of women and thus, women's issues will get transformed into societal issues.

41. It is the empowerment strategy that has emerged as the most challenging task in the Ninth Plan. It is therefore necessary to ensure that women are empowered socially, economically and politically. If women are to be empowered socially, it is necessary to make everyone of them literate, reach them information and generate awareness, equip them with legal literacy and help them in every way to realize their own potential. If women are to be economically empowered, it is necessary to equip them with vocational skills; provide employment and income-generation, extend free channels of micro-credit, provide management/entrepreneurial skills, social security and thus allow them greater visibility. If women are to be politically empowered, the immediate need is to resort to different forms of affirmative discrimination so that women in proportionate numbers reach critical places to ensure that their voices are heard. Once women are empowered, development of children is also ensured as empowerment of women and development of children are intrinsically inter-linked.

State Sector Programmes

42. A critical review of the women and child development sector at State level has revealed several lacunae in the on-going policies and programmes affecting their implementation and the standard of services. Important areas requiring attention of both State Governments and UT Administrations, during the last two years of the Ninth Plan include - **i)** States/UTs which have not yet set up exclusive Departments/Directorates for Women and Child, State Commissions for Women or Women's Development Corporations nor formulated State Policies for Empowerment of Women and Plans of Action for Children/Girl Child should expedite positive action in this direction; **ii)** rationalization of on-going programmes of women and children and make for more and more productive projects for empowering women, both socially and economically, rather than extend doles/financial assistance for non-productive purposes; **iii)** prioritise the programmes while allocating the limited resources; for instance, except for a few States /UTs like Gujarat, Orissa, Sikkim, Dadra & Nagar Haveli, Daman & Diu, Delhi, Lakshadweep and Pondicherry, no State/UT could provide adequate resources for supplementary feeding of ICDS; **iv)** extend in-service training and refresher courses for the staff of the Departments/Directorates of Women and Child Development to keep them abreast of the latest developments including governmental policies and programmes; **v)** develop effective coordination with the Office of the State Director-General/Inspector-General of Police so as to keep a parole on the increasing incidence of crime/atrocities against women, especially the girl-child; **vi)** promote voluntary action especially in those areas where the voluntary efforts are missing/minimal.

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Non-Governmental Efforts

43. While governmental interventions in this sector are operationalised largely through NGOs, the initiatives, innovative experiments and alternative models that the NGOs themselves have developed are rich and diverse. These efforts have demonstrated the success of alternative models of empowerment of women and development of children in the areas of welfare and support services; micro-credit, employment and income generation activities; awareness generation / gender sensitization programmes, and organizing women into self-help groups. The Central Social Welfare Board which is an apex organization for voluntary action has been networking with more than 12,000 voluntary organizations. It is time that all these voluntary efforts were streamlined and re-directed into effective channels of operation, besides ensuring an even spread of the voluntary effort all over the country.

Resource Position

44. Keeping in view prior commitments and programme priorities, the revised Ninth Plan outlay of Rs.7,810.42 crore was re-distributed amongst various programmes of the Department, as shown below:

Outlays and Expenditure Under WCD Sector During Ninth Plan (1997-2002)

(Rs. in crores)

Programmes (1)	Ninth Plan (1997-2002) Outlay (2)	1997-98 (Actuals) (3)	1998-99 (Actuals) (4)	1999-2000 (Actuals) (5)	Exp. (1997 (2000) (6)	% age (Col.6 to col. 2 (7)	Balance (2000-02) (8)*	% age (Col8 to col. 2 (9)
I. Central Sector	7810.42 (100.00)	894.69	1131.74	1247.39	3273.82	41.91	4536.60	58.09
– Child Dev.	6922.99 (88.63)	833.59	1030.2	1145.00	3008.79	43.46	3914.20	56.54
– Women Dev.	843.73 (10.80)	58.80	97.58	97.48	253.86	30.09	589.87	69.91
– Others	14.70 (0.19)	1.38	1.87	2.95	6.20	42.18	8.50	57.82
– New Starts	10.53 (0.14)	–	0.90	–	0.90	8.55	9.63	91.45
– Food & Nutrition Board (FNB)@	18.47 (0.24)	0.92	1.19	1.96	4.07	22.04	14.40	77.96
II. State Sector	——— Included under Social Welfare ———							

Note: Figures in parenthesis indicate the percentages.

* This includes EAP of Rs.1134.51 crore in the Ninth Plan; Rs.116.07 crore in 1997-98; Rs.117.80 crore in 1998-99 and Rs.223.33 crore in 1999-2000.

@ Write-up on Food and Nutrition Board is available under the Chapter 'Food and Nutrition Security.

45. As could be seen from the data above, the Department has given an over-riding priority to the programmes of child development, instead of having a balanced distribution of resources between 'Empowerment of Women' and 'Development of Children' - the two major responsibilities entrusted to the nodal Department of Women and Child Development. As the priorities of the Department stand today, programmes for children alone takes away 88.63% of the total resources, while the rest of the 11.37% resources remains with Women, Food and Nutrition Board and Other Grant-in-aid programmes. This, however, does not go in conformity with the priorities/objectives set in the Ninth Plan.

CHAPTER 14

EMPOWERMENT OF THE SOCIALLY DISADVANTAGED GROUPS

Introduction

The Socially Disadvantaged Groups include the Scheduled Castes (SCs), the Scheduled Tribes (STs), the Other Backward Classes (OBCs) and the Minorities. According to the 1991 Census, SCs account for 138.23 million (16.5 percent); STs 67.76 million (8.1 percent); and Minorities 145.31 million (17.2 percent). As regards OBCs, it is difficult to quantify the size of their population in the absence of the Census data. However, according to the estimates by the Mandal Commission in 1993, the OBCs constitute 52 per cent of the country's total population. Some of them may belong to the categories of SCs and Minorities.

Commitments of Ninth Plan

2. The Ninth Five Year Plan commits to empower the Socially Disadvantaged Groups as agents of socio-economic change and development, as set out in Box No.1 below:.

Box No. 1

COMMITMENTS OF THE NINTH PLAN

- To create an enabling environment that is conducive for SCs, STs, OBCs and Minorities to exercise their rights freely, enjoy their privileges and be able to lead a life with confidence and dignity.
- To ensure removal of disparities; eliminate exploitation and suppression and provide protection to the disadvantaged groups.
- To ensuree developmental benefits ` Reach the Unreached ' through equitable distribution and with social justice.
- To ensure participation of the Socially Disadvantaged Groups in the process of planning not merely as beneficiaries but also as partakers in the formulation of need -based programmes/projects, and in their implementation, supervision and monitoring.
- To accelerate the on-going process of improving the socio-economic status of the disadvantaged groups through effective implementation of various policies and programmes and thus bring them on par with rest of the society.
- To ensure a certain percentage of funds / benefits from all the relevant programmes to flow to women belonging to these Groups who are the most affected.

3. Towards fulfilling the commitments, the Ninth Plan adopted a three pronged strategy of - i) Social Empowerment; ii) Economic Empowerment; and iii) Social Justice to ensure removal of disparities, elimination of exploitation and suppression and to provide protection to these disadvantaged groups.

i) Social Empowerment

Scheduled Castes and Scheduled Tribes

4. Education being the most effective instrument for socio-economic empowerment, high priority continues to be accorded to improve the educational status of SCs and STs, specially that of the women and the girl child. No doubt, there has been a visible increase in the literacy rates of SCs and STs during the last three developmental decades, but the gap between literacy rate of SCs/ STs and that of the general population continues to persist, as shown by the data given on next page.

5. As could be seen from the Table, the most discouraging sign was the increasing gap between the female literacy rate of SCs and STs and of the general categories during 1971 to 1991, defeating the very efforts at reducing the existing gaps/disparities. The female literacy rates of these communities as a whole still continues to be very low requiring focussed attention.

6. Supplementing efforts by the Department of Education, the nodal Ministry of Social Justice and Empowerment and the Ministry of Tribal Affairs, since its establishment in 1999, has also implemented a few exclusive programmes for the educational betterment of the Socially Disadvantaged Groups through extending scholarships, hostels, coaching etc.

7. The nation-wide scheme of Post-Matric Scholarships (PMS) for Scheduled Caste and Scheduled Tribe students was revised in 1997-98 to extend its scope besides increasing the amount of scholarship and the ceiling of income limits of parents. . During first three years of the Plan (1997-2000), an amount of Rs.315.07 crore has been released to States/Union Territories (UTs) for extending PMS to 56.26 lakh students. Similarly, under the scheme of Pre-Matric Scholarships for the children of those engaged in un-clean occupations an amount of Rs.14.28 crore was spent during the first three years of the Ninth Plan (1997-2000) to benefit about 10.18 lakh students. It is time that the impact of these two schemes

Literacy Rates of SCs and STs: The Gains and the Gaps between 1971 and 1991

Indicator	1971					1991				
		Rates		Gap			Rates		Gap	
	Total	SC	ST	SC	ST	Total	SC	ST	SC	ST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Total Literacy	**29.5**	**14.7**	**11.3**	**(-)14.8**	**(-)18.2**	**52.2**	**37.4**	**29.6**	**(-)14.8**	**(-)22.6**
Male	39.5	22.4	17.6	(-)17.1	(-)21.9	64.1	49.9	40.7	(-)14.2	(-)23.4
Female	18.7	6.4	4.9	(-)12.3	(-)13.8	39.3	23.8	18.2	(-)15.5	(-)21.1
Gross Enrolment Ratios Classes I - V										
		(1990-91)					(1997-98)			
Total	100.1	84.2	85.9	(-)15.9	(-)14.2	89.7	92.4	90.7	(-)2.7	(+)1.0
Boys	114.0	98.5	101.3	(-)15.5	(-)12.7	97.7	102.3	102.9	(+)4.6	(+)5.2
Girls	85.5	68.3	68.2	(-)17.2	(-)17.3	81.2	81.6	78.3	(+)0.4	(+)2.9
Classes VI - VIII		(1990-91)					(1997-98)			
Total	62.1	41.3	32.2	(-)20.8	(-)29.9	58.5	48.9	43.2	(-)9.6	(-)15.3
Boys	76.6	53.2	42.3	(-)23.4	(-)34.3	66.5	75.8	53.0	(+)9.3	(-)13.5
Girls	47.0	28.8	21.9	(-)18.2	(-)25.1	49.5	37.6	32.9	(-)11.9	(-)16.6
Drop-out Rates (Class I-VIII)										
		(1990-91)					(1997-98)			
Total	60.9	67.8	78.6	(+)6.9	(+)17.7	60.5	66.6	74.7	(+)6.1	(+)14.2
Boys	59.1	64.3	75.7	(+)5.2	(+)16.6	58.3	63.6	75.4	(+)5.3	(+)17.1
Girls	65.1	73.2	82.2	(+)8.1	(+)17.1	63.5	71.0	80.9	(+)7.5	(+)17.4

Source : 1) Selected Educational Statistics, 1990-91 and 1998-99, Department of Education Government of India, New Delhi
2) Education in India 1992-93, Department of Education, Government of India, 1998

was assessed, especially from the point of cost-benefit analysis.

8. There are several other educational programmes for these groups. The programmes are - Construction of Hostels for SC/ST Boys and Girls, Ashram-schools for STs, Coaching and Allied Scheme, Book-Banks; Upgradation of Merit of SC/ST students; Special Educational Development Programmes to SC/ST Girls belonging to Low Literacy Areas; Programmes to extend financial assistance to Non Governmental Organisations (NGOs) for setting up of Educational Complexes to promote education among SCs/STs and especially amongst girls belonging to Primitive Tribal Groups (PTGs); National Scholarships to meritorious SC/ST students to pursue higher studies abroad etc. All these schemes, as

Box No.2

SOCIAL EMPOWERMENT

Education being the most effective instrument for socio-economic empowerment of the socially disadvantaged groups, high priority continues to be accorded to improve the educational status of these groups especially that of women and girl child through :

- Relaxation of norms for opening of primary schools within one kilometer of walking distance.
- Extending reservation in educational institutions and granting concessions like free education, free supply of books, uniforms/ scholarships etc.
- Vocationalising education both at the middle and high school levelstowards improving opportunities for both wage and self-employment.
- Promoting higher and technical/professional education amongst these groups, through effective implementation of Post Matric Scheolarships (PMS) with an added thrust and wider coverage.
- Promoting higher education amongst children whose parents are engaged in unclean occupations and thus gradually wean them away from the practice of scavenging.
- Providing more opportunity to these groups to appear in the competitive examination coaching centers.
- Achieving complete eradication of untouchability by 2002 and thus providing a rightful place and status to these socially disadvantaged groups.
- Developing special health packages and extending vital health services through improved delivery system to combat endemic diseases prevalent in Tribal areas.
- Launching exclusive schemes for Primitive Tribal Groups for their survival, protection and all-round development.

stated earlier, supplement the major efforts being put into action exclusively to improve the educational status of SC and ST population and thus empower them socially.

9. As the State Governments are unable to meet the huge committed liability, educational development schemes especially like Post-Matric Scholarships and Pre-Matric Scholarships get adversely affected, leaving SC/ST students to face hardships due to non-payment of scholarships under these schemes. A recent evaluation carried out by the Ministry on the scheme has found that the performance of certain States in providing matching grant, maintenance of services and management of hostels is not encouraging and the pace of construction of hostels has been very slow and the basic amenities provided in them are substandard. A review of Ashram Schools scheme would show that some of the schools are very badly maintained and deprived of even basic facilities. Also, no separate sections exist in the hostels for primary school children which is a pre-requisite.

10. Tribal hostels and residential schools in remote interiors are poorly managed, plagued by badly maintained buildings with leakages and by delays in payments to students and purchases. The greatest failing has been in education in tribal schools. The stated tribal policy of 'integration' and 'enabling tribal communities to develop according to their own genius' would appear to have been entirely forgotten and mainstream school curricula are imposed wholesale on tribal schools. The problem is not merely the medium of instruction — again contrary to stated national policy of enabling children at the primary level to study in their mother- tongue — there are almost no tribal schools in which teaching is in tribal languages.

11. Although educational facilities are made available to the weaker sections, the quality of those facilities remains dismal and the content of education is neither found relevant nor meaningful to their socio-economic set-up and needs. Therefore, the need is to evolve an effective system of education process in terms of using their local language (especially for STs) as the medium of instruction and of vocationalisation of education at the Middle/High School levels to equip these groups for wage/self-employment. Educational development amongst the disadvantaged sections, especially SCs and STs, shows up certain numerical improvement but the achievements are not commensurate either qualitatively or quantitatively to reach the level of competence on par with the general population.

Other Backward Classes (OBCs)

12. Development of the OBCs, which made a beginning during the'Nineties, received better attention in the Ninth Plan with many new initiatives coming up in the field of education and economic development. For educational development amongst OBCs, schemes were introduced to provide scholarships for post-matric/ pre-matric courses as well as other higher education supported by hostel facilities. Besides, children belonging to the OBCs were also allowed to enjoy the existing hostel facilities meant for SC and ST boys and girls. For OBC students to participate effectively in the competitive examinations, Pre Examination Coaching Centres were set up in the Ninth Plan.

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Box No.3

DEVELOPMENT OF OBCs & MINORITIES

Other Backward Classes (OBCs)

- Launching of 3 new Educational Development Schemes of Post-Matric Scholarships, Pre-Matric Scholarships and Hostels for OBC Boys and Girls.
- Launching of a Central Sector Scheme of Grant-in-Aid to voluntary organizations.
- Expansion of employment-cum-income generation activities through National Backward Classes Finance and Development Corporation.

Minorities

- Effective implementation of 15-Point Programme towards ensuring security of life, property and job assurance for the Minorities.
- Promoting educational development through modernisation of Madarsas and strengthening and expansion of Maulana Azad Education Foundation's activities, specially focussing on women .
- Promoting self employment activities with upgradation of entrepreneurial skills through National Minorities Finance and Development Corporation (NMFDC) with a special focus on women.
- Towards economic advancement of the minorities, Authorised Share Capital of NMFDC has been raised from Rs.300 crore to Rs.500 crore.
- Multi-sectoral Developmental Projects to identify the traditional and other related economic activities for formulating viable schemes for generating self-employment, additional incremental income etc. being taken up in 41 Minority concentrated Districts.
- Extending special coaching and training to the educationally backward minorities and other weaker sections to prepare them for various competitive examinations.

Minorities

13. The Department of Education has been concentrating on priority areas to improve the educational status of Minorities, especially that of women/ girls belonging to these communities through a number of programmes. They include – Area Intensive Programmes to extend basic educational infrastructure facilities and services in 41 minority –concentrated districts; Modernisation of Madarsas/Maktabs through introduction of teaching of science, mathematics, social studies and languages, on a voluntary basis; Community Polytechnics in the 41 minority-concentrated Districts etc. The University Grants Commission also implements a scheme of running Coaching Classes for weaker sections of the educationally backward Minorities and Coaching Classes for Civil Services Examinations. Further, promotion of education amongst women was attempted by providing additional facilities of schools, colleges and hostels, offering remedial coaching, upgrading the existing institutions and networking with vocational and technical education. The ongoing scheme of Maulana Azad Education Foundation was also strengthened.

14. The Indian economy has now reached a stage where there would be greater demand for skilled manpower rather than for clerical positions in white collar professions. The expansion in Government jobs will take place at a very slow rate as compared to its growth in the last 40 years. More jobs will be created in factories, small businesses and crafts where minorities and OBCs have an edge over other communities and, therefore, they could do well by concentrating on the newer opportunities, rather than trying to acquire university degrees which have little market value now. The Central Government should, therefore, shift the focus to vocational rather than academic college education for them.

ii) Economic Empowerment

15. Economic backwardness amongst SCs and STs when compared to the general population is depressingly obvious as nearly half of the SC population (48.37%) and more than half of the ST population (51.14%) lived below poverty line (in 1993-94); this percentage was 35.97 amongst the general population. Due to dependency on low-paid and degrading jobs, these disadvantaged groups especially the SCs are subjected to abject poverty. A large number of OBCs and Minorities also continue to live below the Poverty Line and are engaged in low-income traditional artisanships/occupations like handloom, weaving, pottery, fishing, blacksmithy etc., which barely support their sustenance. Therefore, on-going schemes of employment-cum-income generation run by various governmental and non-governmental organisations, have been expanded further to reach them the unreached living in the most backward rural areas and in far-flung tribal areas and make them economically independent and self-reliant.

16. Six apex financial organisations working for the economic empowerment of these groups have been strengthened. They are: - i) National Scheduled Castes/ Scheduled Tribes Finance and Development Corporation (NSFDC); ii) Scheduled Castes Development Corporations (SCDCs); iii) National Backward Classes Finance and Development Corporation (NBCFDC); iv) National Minorities Finance and Development Corporation (NMFDC); v) National Safai Karamcharis Finance and Development Corporation (NSKFDC); and vi)Tribal Co-operative Marketing Development Federation of India Ltd. (TRIFED). The authorized capital of these corporations have been by enhanced during the Ninth Plan (details in Box No.4). These Corporations in collaboration with the State Finance and Development Corporations are expected to work as the catalytic agents besides extending

Box No.4

ECONOMIC EMPOWERMENT

- Special thrust has been given for employment and income generation programmes to make the Socially Disadvantaged Groups economically independent and self-reliant through -
- Strengthening of all the 6 apex financial organisations (NSFDC, SCDC, NBCFDC, NMDFC, NSKFDC & TRIFED) by enhancing their authorised share capital so they play a catalytic role in promoting employment-cum-income generation activities through backward and forward linkages of credit and market facilities;
- Raising of the Authorised Share Capital from - Rs.300 crore to Rs.1000 crore for NSFDC to benefit about 2,18,497 SCs/STs ; Rs.200 crore to Rs.700 crore for NBCFDC for benefiting 76,482 OBCs ; and Rs.300 crore to Rs.500 crore for NMDFC to benefit 36,899 Minorities.
- Assisting SCDCs to extend enhanced financial support to 12.32 lakh SC families.
- Disbursing loans worth Rs.384.39 lakhs by NSKFDC to help rehabilitate 459 Safai Karmachari families.
- Purchasing / paying of remunerative prices to Minor Forest Produce (MFP) collected by the Tribals to avoid exploitation by the middlemen ; processing and marketing of the same by TRIFED.

both 'forward' and 'backward' linkages of credit and marketing facilities to the micro-level agencies to improve the economic lot of these Socially Disadvantaged Groups.

17. A critical assessment of the working of all these Corporations over a period of five to ten years, would show that none of these Corporations justifies the name of being a *Corporation;* they are heavily dependent upon governmental assistance. Generally, the Corporations are expected to become self-reliant over a period of 2-3 years of their establishment. Instead, these organizations are becoming more and more dependent upon the Government and demanding a hike in the Authorised Share Capital from time to time, which is not a healthy sign. For example, the original Authorised Share Capital of Rs.150 crore for NSFDC has been revised three, four times to raise it to Rs.1, 000 crore. Further, these corporations have maintained a recovery rate as poor as 30% to 50%. In sharp contrast, a similar organization like Rashtriya Mahila Kosh (RMK), which extends credit to poor and assetless women in the informal sector, could achieve a recovery rate as high as 95% to 98% and become self-sufficient by raising the original corpus of Rs.31 crore in 1993 to Rs.48.06 crore within a period of five years. This calls for an urgent study of the working of all these six Corporations with a major objective of introducing necessary reforms, both business and managerial, so as to make them effective financial instruments in empowering the disadvantaged. If such action is not taken , there is every danger of these Corporations becoming a permanent burden on the Government. Action to this effect needs to be completed during this Plan period.

18. Besides programmes implemented through those apex organizations, the nodal Ministries also extend Special Central Assistance as an additive to State SCP (Special Component Plan for SCs) and TSP (Tribal Sub Plan) to promote family-based income generation activities to improve the economic conditions of SCs and STs. These programmes suffer from all those handicaps being faced by several poverty alleviation programmes like IRDP (Integrated Rural Development Programme) and SGSY (Swarnjayanti Gram Swarozgar Yojana) , which are discussed elsewhere.

19. Also the line Ministries of Rural Areas and Employment and Urban Affairs and Employment also implement a few nation-wide poverty alleviation programmes viz - Swarna Jayanti Swa Rozgar Yojana and Swarna Jayanti Shahari Rozgar Yojana to generate both wage and self-employment and income generation opportunities for the benefit of the socially and economically disadvantaged Groups. The impact of various poverty alleviation programmes put into action during the last two developmental decades has brought down the incidence of poverty from 57.60 in 1983-84 to 48.37 in 1993-94 in respect of SCs; from 63.14 to 51.14 in respect of STs and from 44.48 to 35.97 in respect of general category for the same period.

20. The declining trend in the poverty rates amongst the SCs and STs has been quite encouraging as the percentage decline of SCs and STs stood at 9.23 and 12.00 respectively, while it was 8.51 for the general category. However, the incidence of poverty amongst SCs and STs still continues to be very high as almost half of their population live below poverty line.

iii) Social Justice

21. As a first step in the process of instituting Social Justice, major structural changes were brought into the erstwhile Ministry of Welfare by setting up of two exclusive national machineries viz., the Ministry of Social Justice and Empowerment for SCs, OBCs and Minorities in 1998 and the Ministry of Tribal Affairs for STs in 1999. This was done not only to re-affirm the governmental commitment of ensuring social justice to the socially deprived but also to extend a focussed attention to these groups.

22. The Protection of Civil Rights Act, 1955 (PCR Act) and the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989 (POA Act) are two important legal instruments to prevent/curb persistent problems of social discrimination, prevalence of social evils like untouchability and increasing cases of exploitation and atrocities against these disadvantaged Groups. The SC & ST (POA) Act provides for Special Courts/Mobile Courts for on-the spot speedy trials and disposal of cases. So far, 19 States have appointed Special Cells/Squads/Officers to ensure effective implementation of these laws. Already, 434 Special Courts/Mobile Special Courts have been set up in 7 States, at the instance of the Central Government.

23. Not only do the disadvantaged groups live in social and economic backwardness but they are also subjected to the persistent social discrimination, crimes and atrocities and exploitation. Areas that are endemic and have a dubious distinction of such crime/atrocities lie in States of Rajasthan (22.5%), Uttar Pradesh (22.1%), Madhya Pradesh (18.2%), Gujarat (7.7%) and Andhra Pradesh (6.5%). Therefore, there is an urgent need for effective enforcement of special legislations of PCR Act and POA Act and provisions of the Indian Penal Code (IPC) with more stringent measures. A definite plan of action ensuring both investigative, preventive and rehabilitative measures needs to be taken up in those areas/districts where the incidence of crimes/atrocities/ violence is high against the weaker sections. Despite the

setting up of Special Courts and Mobile Courts to expedite the pending backlog of cases, there still is a long list pending litigation in the courts of law. States/UTs should review the existing arrangements to administer the protective legislations and strengthen/revamp them effectively to check the trend of crimes and atrocities and ensure speedy disposal of the pending cases. In this endeavour, NGOs should be involved as well.

24. Among other other mechanisms, the Government has set up four National Commissions to secure social justice : One for SCs and STs (1992), a second for OBCs (1993), third for Minorities (1992), and the fourth for Safai Karamcharis (1994) – all statutory bodies. To what extent they have been able to articulate and solve the problems of the disadvantaged group is difficult to say. An impartial review of their effectiveness is required.

25. Another area of concern has been the inhuman practice of carrying the night soil manually. The abnoxious practice of manual scavenging was to be totally eliminated by the end of the Eight Plan in 1997 and those displaced were to be rehabilitated in alternative/viable occupation. But due to tardy progress in identification of those people and their liberation and rehabilitation, the target could not be achieved. As per the surveys conducted recently in 22 States/Union Territories (UTs), a total 5.77 lakh scavengers have been identified; of whom only 1.27 lakh could be trained and 2.90 lakh could be rehabilitated with a total expenditure of Rs.527.16 crore during the last six years 1992-98. Reasons for the poor progress, as explained by States/UTs, include: reluctance on the part of banks and financial institutions to advance credit to beneficiaries; inadequate as well as unattractive stipends during the training period; lack of coordination between State Departments and local bodies on conversion of dry latrines and on the rehabilitation programme; and absence of follow-up on the rehabilitated persons. Lastly, some of the affected people are not keen to shift to new insecure occupations.

26. As a result of the policy of positive discrimination through reservations, SCs in services have gained strength from 13.7 percent in 1974 to 16.9 percent in 1994 which has gone even beyond their percentage of 16.5 in the total population (1991). In the case of STs, though their representation has also gone up from 2.8 percent in 1974 to 5.5 percent in 1994, it is still below their population percentage of 8.1. Representation of SCs/STs in Group A and B Services, i.e., at the decision making level, has been far below the expected level. This implies that SCs/STs lack opportunities for acquiring quality education on par with the general population. There is an urgent need to review the education programmes for SCs/STs to secure/ensure qualitative output with competence to suit the needs of higher jobs and services.

27. Yet another important area is the development of 75 Primitive Tribal Groups spread over 15 States/UTs, which demands both special and immediate attention of the Government. Besides living under the conditions which are unfit for human living, they are also said to face a major threat of extinction because of nutritional deficiencies and diseases and lack of basic health care. Although a programme for their survival, protection and development was launched in 1998 with a total Ninth Plan outlay of Rs.22 crore, not much progress appears to have been achieved. It is required to put through a carefully thought-out 'Plan of Action for Survival, Protection and Development' of Primitive Tribal Groups .

Implementation of SCP, TSP and SCA to SCP and TSP

28. The three special strategies of Special Component Plan (SCP) for SCs; Tribal Sub-Plan (TSP) for STs; and the Special Central Assistance (SCA) to SCP and TSP, have been receiving special attention right from their initiation in the Seventies; as the most effective mechanisms to ensure flow of funds/benefits for SCs and STs from the other general development sectors.

29. The SCA to States/UTs, is an additive to SCP and TSP to strengthen the efforts of States in filling up critical gaps under the family-based income generation projects. Such assistance to SCP was enhanced from Rs.1,125 crore in the Eighth Plan to Rs. 2,092.95 crore in the Ninth Plan, an 86 per cent increase. Of this, the likely utilisation would be about Rs.1,106.27 crore (52.9%) during 1997-2000, leaving a balance of Rs. 986.68 crore for the remaining period. Similarly, the SCA to TSP was also enhanced from Rs.1,479.84 crore in the Eighth Plan to Rs.1,910 crore (Provisional) in the Ninth Plan, showing an increase by 33.1 per cent. Details of such flow of funds from the Central and the State Sectors during 1997-98 are given in the table on the next page.

30. During the period of appraisal, certain issues about non-earmarking of funds and its consequences have come to surface. Firstly, some Ministries/Departments are regulatory in nature and as such cannot earmark SCP and TSP; secondly, activities of some Ministries/Departments not being divisible in nature, SCP and TSP cannot be earmarked; and thirdly, as a consequence, how far will it be justifiable not to approve the outlays of the Ministries/Departments and States/UTs which do not earmark funds for SCP and TSP.

31. Further, non-release of SCA funds in time by the State Finance Departments to the nodal department has been adversely affecting the smooth running of income generating programmes that are undertaken by the SC/

Flow of Funds through SCP, TSP and SCA to SCP and TSP during 1997-98

Items (1)	Annual Plan (1997-98) (Rs. in Crore) Outlay (2)	Flow to SCP/TSP* (3)	Percentage Col.4 to Col.3 (4)
Special Component Plan (SCP) for SCs			
- Flow from Central Plan (in respect of **13** Ministries/Departments)	15366.63	1639.32	10.7
- Flow from State Plan (in respect of **24** States/UTs)	62395.42	7026.92	11.3
Tribal Sub-Plan (TSP) for STs			
- Flow from Central Plan (in respect of **15** Ministries/Departments)	33119.11	2287.95	6.9
- Flow from State Plan (in respect of 20 States/UTs)	51490.96	3882.64	7.5
Special Central Assistance (SCA) to SCP and TSP			
- SCA to SCP (Outlay & Release)	326.00	308.27	94.6
- SCA to TSP (Outlay & Release)	330.00	329.61	99.9

** : Data is available only upto 1997-98.*

Source: Ministry of Social Justice and Empowerment, Government of India, New Delhi.

ST families living below the line of poverty. Such delays not only frustrate the affected families but also cause predicament to the nodal department as they are not able to utiilise the much needed funds which ultimately remain unspent. Often, such unspent SCA funds are diverted to other purposes leaving the earmarked/ intended purposes unattended. To look into these and other related issues of SCP, TSP, SCA to SCP and TSP, a Central Standing Tripartite Committee was set up in May 1999 (see Box No.5) consisting of the representatives of the Planning Commission, National Commission for SCs and STs , the two nodal Ministries of Social Justice and Empowerment and the Ministry of Tribal Affairs and the concerned Ministry/Department,. The Committee has already completed the task of reviewing the SCP and TSP formulations of the Central Ministries / Departments of Agriculture and Co-operation, Environment and Forest , Urban Employment and Poverty Alleviation, Rural Development, Indian System of Medicine and Homeopathy, Non-Conventional Energy Sources, Water Resources, Public Enterprises, Animal Husbandry & Dairying , Sugar and Edible Oils, Drinking Water Supply, Statistics and Programme Implementation, Food Processing and Power . Similar Committees are also coming up at the State level. So far, 6 States viz., Andhra Pradesh, Bihar, Madhya Pradesh, West Bengal, Punjab and Gujarat have set up such committees.

Critical Areas/Gaps

Untouchability & Atrocities against SCs & STs

32. The National Commission for SCs and STs in its Report for the years 1994-95 and 1995-96, found that untouchability was still practised in many forms throughout the country. In towns and cities, however, there is far greater anonymity and occupational mobility, which enables blurring of caste identities. It has been documented that urban migration by SCs is often impelled not only by economic compulsions, but also by the desire to escape the social degradation of untouchability.

33. Closely related to the practice of untouchability are other atrocities against SCs and STs. According to Crime in India (1998), a total of 25,638 cases of crime were reported against SCs. Of these, 8,167 cases were reported under PCR Act, 1955 and SC/ST (Prevention of Atrocities) Act, 1989; 923 cases of rape; 516 cases of murder; and 3,809 cases of hurt. In case of STs, a total of 4,276 cases of crime were reported during the same period. Of these, 759 cases were reported under PCR Act and POA Act; 331 cases of rape, 66 of murder and 638 of hurt. Given that SCs and STs are both reluctant and unable (for lack of police cooperation) to report crimes against themselves, actual number of abuses is presumably much higher.

34. The Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989 specifies the atrocities liable to penalties under the Act. Both the National Commission for Scheduled Castes and Scheduled Tribes and the National Police Commission (1980) document several recurring pathologies, such as delays in reporting, refusal to register complaints, delayed arrival on scene, half-hearted investigation, failure to cite relevant provisions of law, brutality in dealing with accused persons of the

Box No.5

STANDING TRIPARTITE COMMITTEES - SPECIAL MECHANSIMS TO MONITOR IMPLEMENTATION OF SCP, TSP AND SCA TO SCP AND TSP

A Central Standing Tripartite Committee was constituted to review / monitor the implementation of SCP, TSP and SCA to SCP & TSP. The terms of reference of the Committee are as follows:

- To look into the reasons for not implementing the Guidelines concerning SCP and TSP and to suggest specific measures for their compliance;
- To identify specific schemes which would benefit SCs and STs under various development sectors, their prioritization along with earmarking of funds for them;
- To review the process of implementation, impact assessment and monitoring of SCP and TSP and utilization of Special Central Assistance (SCA) to SCP and TSP and the Grant-in-Aid (GIA) under Article 275(1) and advise the Planning Commission on measures which would serve the interests of these communities more effectively;
- The Committee will recommend allocations/earmarking of funds under SCP and TSP as also specific/additional schemes consistent with the Guidelines, where necessary, for various Central Ministries and State Governments which would be taken into account while finalizing their Annual Plans each year;
- To suggest institutional and advocacy arrangements for participation of beneficiary groups in preparation and implementation of schemes under SCP and TSP and Central allocations referred to above, taking into account, among others, priorities of 73rd and 74th Amendments and other Legislative measures flowing there from.
- Similar Standing Tripartite Committees are also coming up at State level.

weaker sections, soft treatment of accused persons from influential sections and making or failing to make arrest on personal considerations. The other common maladies documented in the study were poor quality of prosecution, protracted pendency and procedural delays before courts and high percentage of acquittals.

35. A majority of Scheduled Castes, being poor and assetless, are mainly engaged as agricultural labourers. As per the 1991 Census, 75 per cent of SC workers are engaged in the primary sector. Of these, more than half are agricultural labourers; just 25 per cent are cultivators. Their hold in agrarian economy is also declining; the number of cultivators amongst SCs has decreased from 38 per cent in 1961 to 25 per cent in 1991. Many of the SC workers continue to derive livelihood from occupations like scavenging, flaying, tanning etc. To break the caste-based occupational stereotyping, special efforts need to be made to encourage them to make the best use of the educational concessions and programmes being extended for their benefit by the Government. Also, there is a need to vocationalise the education right at the middle-school level to promote occupational mobility for these groups.

36. Further, the SC settlements in many areas are on the outskirts and in seclusion from the mainstream settlement manifesting social segregation. Their dwellings are devoid of basic minimum amenities like safe drinking water, health and sanitation, roads etc. Therefore, special packages of basic minimum services viz. safe drinking water; nutrition supplementation; primary health care; primary education and employment-cum-income-generation activities need to be designed/developed to cater to the SC Clusters/Bastis.

Unresolved Issues in Tribal Development

37. From the viewpoint of policy, it is important to understand that tribal communities are vulnerable not only because they are poor, assetless and illiterate compared to the general population; often the distinct vulnerability arises from their inability to negotiate and cope with the consequences of their forced integration with the mainstream economy, society, cultural and political system, from all of which they were historically protected by their relative isolation. Post-independence, the requirements of planned development brought with them dams, mines, industries and roads —all located on tribal lands. With these came the concomitant processes of displacement, literal and metaphorical. Tribal institutions and practices were forced into uneasy existence with or gave way to market or formal state institutions, tribals found themselves at a profound disadvantage in the face of an influx of better-equipped outsiders into tribal areas. The repercussions for the already fragile socio-economic livelihood base of the tribals were devastating — ranging from loss of livelihoods, land alienation on a vast scale, to hereditary bondage.

38. As tribals grapple with these tragic consequences, a small clutch of bureaucratic programmes has done little to assist the precipitous pauperisation, exploitation and disintegration of tribal communities. Tribals respond occasionally with anger and assertion, but often despair. The following persistent problems have by and large remained unattended to:

- Forests & Forest Villages
- Land Alienation & Indebtedness
- Shifting Cultivation
- Relation with forests, and Government monopoly over NTFPs (non timber forest products)
- Ineffective implementation of Panchayats (Extension to the Scheduled Areas) Act of 1996 (PESA, 1996) for Schedule V Areas
- Involuntary displacement and lack of proper rehabilitation
- Movements

39. On the official side, the Ministry of Tribal Affairs created recently or the Ministry of Social Justice & Empowerment before 1999 has not given sufficient attention to these issues saying these subjects have not been allotted to them. Even then, they are expected to play a more activist role in addressing these issues by taking up issues with the concerned Ministries wherever these subjects get low importance.

Forests & Forest Villages

40. As discussed elsewhere, forest is the most important endowment of tribal communities for survival and livelihood. Yet, considerations of maximising State revenues from forests have dominated forest policy from colonial times. Community control over forests was no longer recognised legally, and the State became the ultimate owner and custodian of forests. Forest dwellers became 'encroachers and trespassers' as clean felling for timber extraction dominated forestry operations. The conversion of a complex forest into genetically simplified industrial plantations add to State revenues and benefit industries, but a wide range of species critical to the survival and well-being of tribal forest dwellers are depleted severely and sometimes even lost forever.

41. Government has created new rights of industrialists to forest produce at what is seen as highly subsidised prices. There are instances of industries being supplied bamboo for the manufacture of papers at 10 to 50 per cent of the auction rate ,while purchase at auctions is the only source of bamboo for tribal artisans, such as the Koya of Orissa. State monopolies over collection of NTFPs have also followed this same pattern of maximising corporate interests and State revenue, at the expense of tribal subsistence. In contrast to deregulation in the corporate sector, irrational barriers abound to the processing of NTFPs, even for the manufacture of brooms, leaf plates and *agarbattis*. .

42. Deforestation and destruction of the forest ecology has substantially damaged and eroded the very subsistence base of forest-based tribals, who otherwise form an integral part of the total forest eco-system for centuries. Despite special safeguards included in the National Forest Policy of 1988, tribals continue to struggle for survival with no assets of their own with proprietary rights, restriction in the collection of minor forest produce, exploitation by middlemen, displacement due to launching of National Wild Life Sanctuaries, Game Parks etc. Measures need to be taken to confer heritable but inalienable rights on tribal land in forest villages; remove restriction on tribal rights of access; collection of minor forest produce; ensure basic minimum services to those living in the forest villages; and avoid displacement of tribals to the extent possible.

43. Closely related to tribal forest rights is the problem of Intellectual Property Rights (IPR) of the tribals arising out of the process of liberalization and globalisation which results in the deprivation of their ownership rights over indigenous knowledge of various resources, especially of medicinal plants and their use. Therefore, there is an urgent need to ensure appropriate legal and institutional arrangements for recognizing and acknowledging the rights of tribals to such resources and indigenous knowledge.

Land Alienation & Indebtedness

44. Tribal land alienation is the most important cause of the pauperisation of tribals, rendering an economic situation, extremely vulnerable even at the best of times, even more precarious. Alongside a shrinking access to forests for their livelihood,.shifting cultivation has also been severely restricted for the tribals. The livelihood option for them today is settled agriculture.

45. In 1997-98, the Department of Rural Development, Ministry of Rural Areas and Employment, at the Centre commissioned several State-specific studies on the problem of land alienation and reports have been received so far from Bihar, Andhra Pradesh, Madhya Pradesh, Gujarat, Rajasthan and Maharashtra.

46. The reports confirm that massive alienation of tribal lands continues in tribal regions in all parts of the country. The magnitude of the problem can be assessed in the Andhra Pradesh Report, for instance, from the fact that today non-tribals own more than half the land in Scheduled Areas of the State. The figure is 52 per cent in Khammam district, 60 per cent in Adilabad district and 71 per cent in Warangal district. It may be noted that these are official figures based on land records, and would not include 'benami' holdings in the name of tribals but held by non-tribals.

47. In Madhya Pradesh, the Census reveals that the percentage of Scheduled Tribe cultivators to total Scheduled Tribe workers fell from 76.45 per cent in 1961 to 68.09 per cent in 1991. Correspondingly the percentage of Scheduled Tribe agricultural labourers to total Scheduled Tribe workers rose from 17.73 per cent to 25.52 per cent. Similar empirical evidence is available from other States as well.

48. The studies commissioned by the Central Government of India confirm that the fundamental reason for tribal land alienation is the fragile, constantly shrinking economic base of the tribals. Their traditional skills in the gathering of forest produce lost significance with the introduction of State ownership of forests, so that from food-gatherers they were reduced to wage-earners. Private property in land extinguished the erstwhile right of tribal communities to free access to land in consonance with their needs. Settled agriculture brought with it its inevitable linkages with credit, inputs and markets, rendering the tribals even more dependent and vulnerable.

49. As the tribals have an innate fear based on bitter past experience of banks, cooperative institutions and other Government sources of credit, they prefer the predictability of the moneylender despite his usurious interest rates. In any case, most banks and cooperative institutions are unwilling to provide consumption loans, and moneylenders are the only sources of consumption credit.

50. While the dependence on the moneylender drives tribals into perpetual debt, mortgage and ultimate loss of land, there is also the common of phenomenon of bondage where they pledge their person — and even that of their families — against a loan. The practice of bonded labour is known by different names in different regions. In Rajasthan, it is called *Sagri*; in Andhra, *Vetti*; in Orissa, *Gothi*; in Karnataka, *Jetha* and in Madhya Pradesh, *Naukri Nama*.

51. The studies also show that the Government policy itself has contributed to the phenomenon of tribal land alienation, directly or indirectly. In several States, tribal land is being legally auctioned by co-operative credit societies and banks to recover dues. Auctioned land is purchased by non-tribals as well as rich tribals. Authorities responsible for regulating sale of tribal lands to non-tribals have been seen to collude with non-tribals to defraud the tribal landowners.

52. In a study, the Tribal Research Institute, Madhya Pradesh, reports:" while on the one hand section 165(6) of the M.P. Land Revenue Code prohibits transfer of land from aboriginals, the latter part of the same section permits it under certain conditions... All other clauses in the interest of the aboriginals seem to be overshadowed by this and transfer of the land from the tribal to the non-tribal is a regular feature.".

53. The study notes that a high 46.3% of cases where the Collector gave permission to tribal landowners to sell land related to repayment of Government loans. Says the report: 'Indebtedness is the main cause of land alienation. Actually what happens in the area is that tribals mortgage their land to non-tribals and take loans...... They would then take loan from Government and use it for repayment of the private debts. Having failed to pay the loan due to Government, they apply for permission to sell land which is granted. In fact the sale is to the mortgagee, while on paper it assumes the shape of innocent transfer for repayment of Government loans'. The study further notes that 'the quantum of illegal (*benami*) land alienation from tribals to non-tribals is like that part of the iceberg that remains under the surface of water. Seemingly though the quantum of legal transfers is not very much, the incidence of illegal transfers not easily detectable is very high'.

54. The studies commissioned by the Central Government with regard to other States also establish that transfers of land from tribal landowners to non-tribals continued despite the various enactments.

55. The persistent problem of indebtedness amongst the tribals is one of the manifestations of their poverty. Despite the existence of legal/protective measures to curb the business of money-lending in tribal areas and provisions for debt-relief, their enforcement has been weak and ineffective. Although the practice of bonded-labour stands abolished in the country through an Act of Parliament viz., the Bonded Labour System (Abolition) Act 1976, a total number of 2.52 lakh bonded labourers (including STs) were identified in March 1993 in 12 States i.e., Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu, Maharashtra, Uttar Pradesh, Kerala, Haryana and Gujarat.

Shifting Cultivation

56. Shifting cultivation is still being practised by the tribal population on higher slopes of hilly areas of the country. As estimated, more than 6 lakh tribal families in the States of North-East, Orissa, Andhra Pradesh, Bihar and Himachal Pradesh practise shifting cultivation, which is not ecologically sound. Yet, the shifting cultivation is integrally linked to the tribal economy in the areas where it is practised and their social, economic and ritual activities are also centred around this practice. The problem of shifting cultivation is a very complex one involving economic, social and psychological aspects of

Situation in Andhra Pradesh

The lush green jungles of the Eastern Ghats, spread over nine districts of Andhra Pradesh and comprising 11,595 sq. miles of the State, are no longer a secure haven for nearly 33 tribal communities, seven of them primitive groups, inhabiting these highlands. In the four decades since Independence, the tribals have steadily lost their hold on much of this area. While many have lost their sources of livelihood, others have sought refuge in deep forests.

According to the 1991 census, the region's tribal-non-tribal ratio had dropped to 2:1 from the 1950 proportion of 6:1. And this demographic change has been largely blamed on official policies. Thanks to amendments made to the land transfer regulations in the tribal belt by the Government, the non-tribals are holding almost 55 per cent of tribal lands either benami or through clandestine means.

The setting up of minor and medium irrigation projects in areas meant for tribals has been another way to dispossess the locals. Although such projects came under Tribal Sub-Plan, the emphasis was on cultivating crops alien to the Adivasis. For example, the Tribal Sub-Plan for Warangal district is aimed at bringing 1.56 lakh hectares under cultivation — though tribals themselves hold only 24,000 hectares. Suggestions have been made that the Government has been sanctioning many reservoirs, minor irrigation schemes, lift irrigation and medium canals in the tribal belt to facilitate the cultivation of land occupied by people from the plains. While the non-tribal is holding the rich lands, the tribal has to depend on *podu* (hill slope) cultivation.

the tribal communities. The Ministry of Agriculture has been implementing a Scheme for control and transformation of shifting cultivation in the North-Eastern States, but the pace of its implementation has been very slow. Efforts need to be made for expansion of the programme towards a better coverage.

Displacement

57. Iit is estimated that some 50 million people have been displaced since 1950 on account of various development projects; of those people, more than 40 per cent are tribals. The projects include large irrigation dams, hydroelectric projects, open cast and underground coal mines, super thermal power plants and mineral-based industrial units.

58. In large mining projects, tribals lose their land not only to the project authorities but even to non-tribal outsiders who converge into these areas and corner both the land and the new economic opportunities in commerce and petty industry. Even wage employment to local tribals is rare. In Chotanagpur area, though the tribals constitute more than 50 per cent of the total population, there are not more than 5 per cent of them in the industrial working force. In some of the large firms like TISCO, Jamshedpur and Bharat Coking Coal Ltd., Dhanbad, the tribals employed are fewer than 5 per cent'.

59. A National Policy for Rehabilitation of the Displaced Persons, which has been under consideration of the Government for the last three years, may come up with suitable measures for rehabilitation of the displaced tribals. The Policy should not only ensure that no deterioration takes place in the living conditions of the tribals but it should provide for betterment of their lot.

Movements

60. A long history of disruption of tribal communities, sustained and frequently brutal expropriation of tribal wealth and the resultant anger and despair has led to a situation in which many regions of tribal concentration are immersed in a cycle of violence. All States in the north-east have been ripped apart by violence. In many stretches of forested Central India, an array of outfits continue to channelise tribal anger into violent resistance to State power.

61. These and several other problems have tended to cause increasing unrest amongst the tribals/tribal areas in the recent past. Efforts should, therefore, be made to provide employment- cum-income generation opportunities for a period of 300 days a year to improve their economic status and to free them from the clutches of poverty and indebtedness. Also programmes to extend micro-credit for self-employment ventures and consumption credit, when no work opportunities are available, need to be brought into action on priority basis. Special packages of Poverty Alleviation Programmes clubbed with basic minimum services should reach these areas through effective inter-sectoral co-ordination at implementation levels.

State Sector

62. The prevailing backwardness amongst the tribals and the tribal areas has been paving the way for certain internal disturbances in certain States as reflected in the tribal unrest and extremist movements in tribal areas. Therefore, special efforts to counteract these influences through various developmental activities need to be taken up in the affected areas on priority basis by the concerned

State Governments to safeguard the interests of these disadvantaged Groups.

63. The 73rd and 74th Amendments to the Constitution (1993) have paved the way for effective involvement of Panchayati Raj Institutions (PRIs) in the formulation/ implementation/monitoring of schemes through active participation by the people, especially the disadvantaged groups. Yet many States are yet to accomplish this task. Similarly, States should also initiate action to implement the Panchayats (Extension to the Scheduled Areas) Act of 1996 to ensure effective participation of tribals in various developmental programmes.

Voluntary/NGO Sector

64. Voluntary organizations/non-governmental organizations have been playing a very important role in sharing the responsibility of the Government in 'Reaching the Services to the Un-Reached'. But the spread of these organizations is very uneven and concentrated largely in urban areas. Keeping this in view, all grant-in-aid schemes for NGOs by the two nodal Ministries have been recently reviewed and re-cast to enlarge the scope and coverage by those organisations. While competent NGOs are being encouraged to participate in the programmes of the Ministry in greater measure, strict action has also been contemplated against the NGOs of doubtful integrity.

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65. However, Ministry's efforts to nurture and bring into its fold good voluntary organizations (VOs) with proven reputation have been constrained by several factors. The eligibility criteria debar a number of VOs with activities more akin to commercial ventures. Those are contractor-type organisations which take up schemes but have no clue about building up capability and confidence of the target population. Many such organisations are said to have been set up by social climbers and manipulators who are keen to obtain grants from the Government but have no long-term commitment to sustainable development or poverty alleviation.

66. A blind emphasis on targets and fund utilisation has sometimes played havoc with the quality of projects. This, it was suggested, has shifted the focus of the Ministry from the important task of supporting good and grassroots VOs to funding as many projects and VOs as possible. Even non-existent VOs seek funding by manipulating a favourable report from the States. Where the VOs were genuine, the Ministry could not effectively monitor the large number of sanctioned projects.

67. Good VOs are reluctant to accessing Ministry's support because they find the Government schemes strait-jacketed with no scope for innovative proposals (i.e. all those which do not fall within the framework of Ministry's / Government's schemes). Further, the Ministry is not seen to have played a pro-active role in establishing partnership with committed VOs. Also, it subjects all proposals including those from good VOs to a uniform appraisal procedure inhibiting sensitive or well-established VOs or those engaged in social activism from approaching the Ministry.

68. Towards promoting/strengthening voluntary action for welfare, development and empowerment of the disadvantaged groups at the grassroots level, it is necessary that the system of extending financial assistance to the NGOs is decentralised by setting up State, District and Panchayat-level fora to identify NGOs/ Projects, determine financial assistance, monitor implementation of programmes and assess the impact of such projects.

Resource Position

69. To meet the ever increasing needs of these Disadvantaged Groups, there has been a progressive increase in the Central Plan allocations to the Backward Classes Sector — from Rs.4,175.60 crore in the Eighth to Rs.5,399.18 crore in the Ninth. Similarly, in the State Sector, the outlay for the Backward Classes has been up from Rs.3,080.66 crore in the Eighth Plan to Rs.9690.75 crore in the Ninth Plan. Thus, there exists a total Ninth Plan outlay of Rs.15,089.93 crore for the Backward Classes Sector, as per the details given on the next page.

70. As indicated below, there has been a steady progress in terms of year-wise allocations and utilisation of funds during the first three years (1997-2000) of the Ninth Plan. Taking into consideration the total picture of the utilisation of funds under Central and State sectors, the pace of progress appears to be satisfactory for the Backward Classes Sector; it stood at 59.6 per cent against the ideal level of 60 per cent during first three years of the Plan. However, a qualitative assessment of the progress needs to be made in terms of improving the status of these socially disadvantaged groups.

Outlays and Expenditure under Backward Classes Sector in the Ninth Plan (1997-2002)

(Rs. in crore)

Sector/Programmes	IXth Five Year Plan (1997-2002) Outlays	1997-98 Actual	1998-99 Actual	1999-2000 B.E.	1999-2000 R.E.	Likely Expd. (1997-2000)	% Col. 7 to Col. 2	Balance (2000-2002)	% Col. 9 to Col. 2
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
I. Centre	**5399.18***	**713.05**	**905.66**	**1095.00**	**1071.52**	**2690.23**	**49.8**	**2708.95**	**50.2**
- SCs	4156.50	610.24	693.80	808.50	804.21	2108.25	50.7	2048.25	49.3
- STs	414.13	61.80	73.84	130.00	121.50	257.14	62.1	156.99	37.9
- OBCs	621.45	0.00	99.80	126.50	118.51	218.31	35.1	403.14	64.9
- Minorities	207.10	41.01	38.22	30.00	27.30	106.53	51.4	100.57	48.6
II. States/UTs	**9690.75**	**1683.27**	**2173.09#**	**2452.31**	**2452.31**	**6308.67**	**65.1**	**3382.08**	**34.9**
TOTAL(I+II)	**15089.93**	**2396.32**	**3078.75**	**3547.31**	**3523.83**	**8998.90**	**59.6**	**6091.03**	**40.4**

* **Includes** Rs. 2092.95 crore for SCA to SCP and **Excludes** Rs.1910 crore (Provisional) as SCA to TSP; Rs.650 crore (Provisional) as Grant-in-Aid under Article 275(1) of the Constitution; Rs.250 crore for Kasturba Gandhi Swatantrata Vidyalaya (KGSV); and iv) rs.60 crore for Animal Welfare (Write-up on Animal Welfare is Available under the Chapter 'Environment & Forests'.

\# Revised Estimates (1998-99)

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CHAPTER-15

SOCIAL WELFARE

Introduction

Social Welfare sector is responsible for the welfare, rehabilitation and development of the Persons with Disabilities, the Social Deviants, and the Other Disadvantaged who require special attention of the State because of the disabilities and vulnerabilities they suffer from.

2. While there is no information about the size of the population of these target groups, the National Sample Survey Organization (NSSO) made a rough estimate of the size of the Disabled as 16.15 million in 1991, representing 1.9 per cent of the country's total population. Similarly, in respect of Social Deviants, sample studies indicate that there were about 1.0 lakh adult sex workers and 0.39 lakh child sex workers in 1991; 0.17 lakh juvenile delinquents in 1993; and about 2.48 lakh drug addicts in 1998. Among the Other Disadvantaged Groups, street children numbered around 4.15 lakhs in 1992 and the population of Older Persons (60+) is expected to be 68.51 million by the year 2000.

Commitments of Ninth Plan

3. The approach to Social Welfare in the Ninth Five Year Plan is distinct from earlier Plan approaches because it seeks to adopt altogether a different strategy, specific to each Individual Group viz. i) Empowering the Persons with Disabilities; ii) Reforming the Social Deviants; and iii) Caring the Other Disadvantaged. Policies and programmes for the three vulnerable groups are in line with this three-pronged strategy and receive special attention.

Box No.1

Approach through a 3-fold strategy

Social Welfare in the Ninth Plan is distinct from the earlier plans as it advocates a 3-Fold Strategy, specific to each individual Target Group viz.:

- Empowering the Persons with Disabilities;
- Reforming the Social Deviants; and
- Caring the Other Disadvantaged.

4. While reaffirming the earlier commitment of making as many disabled as possible active, self-dependent and productive members of the society, the Ninth Plan also has specific strategies to tackle increasing problems of social mal-adjustment e.g juvenile delinquency / vagrancy, abuse, crime, exploitation, etc. Increasing / emerging problems of alcoholism, drug addiction, HIV Aids etc. will be addressed through strict enforcement of laws to prohibit / restrict the production and usage of alcoholic drinks with necessary punitive measures; and expand the services of preventive, curative and rehabilitative services through counseling; running de-addiction camps / centers, etc. The problems of elderly will be dealt with by extending services of health-care, financial security, shelter, welfare etc.

Review of the Policies and Programmes

I. Empowering Persons with Disabilities

5 . To ensure social justice to the disabled on equitable terms, the Central Government enacted a comprehensive legislation viz . - The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995. The PD Act which came into force in 1996 aims to empower the persons with disabilities with a right to demand for an enabling environment wherein they can enjoy protection of rights, equal opportunities and full participation in various developmental activities of the country. A beginning has been made to implement this innovative legislation with a special focus on rehabilitation of the rural disabled.

6. The policy envisages a complete package of welfare services to the physically and mentally disabled individuals and groups. It also seeks to deal effectively with the multi-dimensional problems of the disabled population. Set up in line with this policy are six National Institutes: , (i) National Institute for Visually Handicapped, Dehradun; (ii) National Institute for the Orthopaedically Handi-capped, Calcutta; (iii) Ali Yavar Jung National Institute for the Hearing Handicapped, Mumbai; (iv) National Institute for the Mentally Handicapped, Secunderabad; (v) National Institute for Rehabilitation, Training and Research, Cuttack; and (vi) National Institute for Physically Handicapped, New Delhi. All these institutes offer a variety of long term training programmes: three year Degree courses in Physiotherapy, Occupational Therapy, Mental retardation, Education of the deaf, Communication Disorders; shorter period degree and diploma courses in the above disciplines and also in prosthetic and orthotic engineering and audiology, speech therapy and teachers training for the blind.

7. To cater to the needs of the rural disabled, these National Institutes would also work in close collaboration

Box No. 2

Empowering the Persons with Disabilities : Commitments of the Ninth Plan (1997-2002)

- Effective enforcement of Persons with Disabilities Act, 1995 – a comprehensive legislation with both legal and developmental perspective for Persons with Disabilities.
- Create an enabling environment for persons with disabilities to exercise their rights for equal opportunities and full participation.
- Reach the Rural Disabled, who have been neglected so far.
- Prevent disabilities through i) supplementary nutritional feeding and immunization of both children and expectant / nursing mothers; ii) early detection; and iii) timely intervention.
- Adopt a special strategy of CBR (Community-Based Rehabilitation) through families / self-help groups / communities.
- Strengthen / expand special schools and vocational training programmes with barrier-free environment.
- Earmark 3% benefits under various employment-cum-poverty alleviation programmes like Swarna jayanti Gram Swarojgar Yojana (SG-SY) & Swarna Jayanti Shahari Rojgar Yojana (SJ-SRY) .
- Set up a National Trust to ensure total care and custodianship of those with Mental Retardation and Cerebral Palsy.

with organizations, governmental and non-governmental, to give a major thrust to develop training and service models specially suited to the demands and needs of the disabled in rural areas. At present, the National Institutes are paying more attention to building up technical manpower through degree and diploma courses. However, their role in the area of research and development and up-gradation of services in the States has been very limited. In order to develop cost effective aids and appliances, research and development activities of various Institutes need strengthening. The activities of these National Institutes also need to be evaluated so as to diversify / modify training programmes and make them more relevant to the available job opportunities and review their activities from the point of their usefulness, coverage and cost effectiveness.

8. In order to simplify and streamline procedures besides enlarging the scope of activities in line with the commitments of the PD Act, 1995, four on-going schemes were merged: i) Assistance to Voluntary Action for the Disabled Persons; (ii) Assistance to Voluntary Organization for the Rehabilitation of Leprosy Cured Persons; (iii) Assistance to Voluntary Organizations for starting Special Schools for Handicapped Children ; and (iv) Assistance to Voluntary Organization for Persons with Cerebral Palsy and Mental Retardation. Those schemes have been amalgamated into one single 'Integrated Scheme to Promote Voluntary Action for Persons with Disability' in 1998 with a common objective promotion of voluntary efforts for the welfare and development of persons with disabilities. This re-cast umbrella scheme does indeed incorporate all the components of the earlier schemes; but it also proposes to cover new areas viz.- legal aid and legal counseling ; support facilities for sports, recreation, excursions, creative and performing arts; promotion of research in various developmental areas, establishment of well equipped resource centers, etc. The scope of the revised scheme has been amplified to such an extent that any voluntary organization working for ameliorating the plight of the disabled is funded.

9. Artificial Limbs Manufacturing Corporation (ALIMCO), KANPUR was set up in 1976 as a registered body under Section 25 of Companies Act of 1956 for developing, manufacturing and supplying artificial limbs and rehabilitation aids to the disabled. As per stipulations of Section 25 of the Act, the Corporation cannot generate any profit and depends as such on financial assistance from the Central Government. ALIMCO is to have four Auxiliary Production Centres in different regions to achieve a sizeable increase in production and sale of wheel chairs and tri-wheelers to serve a larger number of orthopaedically disabled. In spite of a strong element of subsidy built into its products, ALIMCO was earlier running into losses but in recent years the Corporation has significantly improved its operation; it has been able to achieve substantial increase in turn-over and cut its cash losses during 1997-99. Yet the ALIMCO products are not only costly; they have low acceptability among users. So , then, there is an urgent need to evaluate the functioning of the C;orporation to cater to the needs of poorer segments of the disabled and to optimize the cost of production of various aids and appliances.

10. As for employment / placement needs of the disabled , the existing arrangement for notifying vacancies through the normal and special Employment Exchanges has proved to be a failure. It needs to be reviewed therefore whether the scheme of Special Employment Exchanges should remain with the Ministry of Social Justice & Empowerment or it should go to the Ministry of Labour and the scheme is revised to become effective in achieving its objectives. For now, in fact, these Exchanges have become more or less defunct. Although there is 3 per cent reservation in Group A to D posts of the Central Government for the Disabled, it is not fully utilized as the vacant posts are not notified to the Employment Exchanges. There is a need to ensure that all reserved vacancies for the Disabled are filled on a priority basis and information about such vacancies is widely circulated through print and electronic media to reach out to potential candidates especially in rural areas.

11. To offer cost-effective aids and appliances, an inter-disciplinary science and technology (S&T) effort continued in close collaboration with Defence Research and Development Organization and Department of Science and Technology as well as the Ministry of Social Justice & Empowerment. As a result, various aids have been developed like Floor Reaction Orthosis (FRO), Socket for Lower Limb Amputees, Prosthetic Foot and Calipers made of fibre- reinforced plastics. Application of S&T made significant contributions to help overcome limitations imposed by the disability and improve their personal capacitie; yet new emerging areas like bio-engineering electronics need to be explored for development of aids and appliances. To this effect, more and more collaborative projects with scientific departments and others concerned need to be taken up.

12. The Rehabilitation Council of India (RCI) — set up in 1986 — has been playing an important role in ensuring quality of service in the crucial area of manpower development and enforcing uniform standards in training professionals and giving recognition to them in the field of re-habilitation of the disabled. In addition to its normal activities, RCI has been engaging itself in the training of special educators and medical professional / personnel. This is not only outside RCI's mandate but it also overlaps with the activities of other national institutes and agencies. Regulating the training of rehabilitation profess-ssionals by itself is a huge task; activities of the Council should be confined to the mandate given to it under existing provisions.

13. While the State Governments / UTs are in the process of gearing up their machinery to implement the PD Act, 1995, multi-sectoral efforts at the Central level have already been initiated to translate the Act into action. (See Box No. 3).

Box No. 3
Partnership with the Line Ministries / Deptts.. Ministry Ministry of Health and Family Welfare

- Prevention of disability through various programmes like leprosy eradication, blindness control, immunization etc.

Department of Education

- Extending Integrated Education for the Disabled at 14,523 schools.
- Developing Teacher's Training Programme for persons with disabilities.
- Supply of books, uniforms and other materials to the school going Disabled.

Ministry of Labour (DGE&T)

- Running of 17 Vocational Rehabilitation Centres (VRCs) for the persons with disabilities
- Services to the rural disabled through 11 Rural Rehabilitation Extension Centres
- Organizing training courses for promotion of employment of the disabled.

Ministry of Urban Development

- Evolving Model Norms and Space Standards 'for barrier-free in- built environment'.

Ministry of Rural Development

- Reservation of 2% of benefits in all Poverty Alleviation Schemes.
- Utilisation of 3% of Jawahar Rozgar Yojana (JRY) funds for creation of barrier-free infrastructure

Department of Personnel and Training

- Implementing 3% reservation of jobs for the disabled in Group A, B, C &D services.

Department of Women and Child Development

- Supplementing nutrition through Integrated Child Development Services (ICDS) benefiting about 25 million children and 5 million mothers.
- Conducting training courses for Anganwadi Workers and ANMs for early detection and timely prevention of disabilities.
- Extending health and nutrition education to children and mothers.

The nodal Ministry of Social Justice & Empowerment

- Monitors the progress of the implementation of PD Act , 1995 through an the exclusive mechanism of Central Advisory Board and through the Inter-Ministerial Coordination Committee
- Constituting 5 Core Groups of Experts to make recommendations and formulate schemes giving effect to various provisions of the PD Act.
- Launching of a National Programme for Rehabilitation of Persons with Disabilities in the State Sector.
- Setting up of 6 Regional Composite Resource Centres (RCRC) to cater to all categories of the Disabled.
- Setting up of 4 Rehabilitation Centres for the Spinal Injured and other Orthopaedically Disabled with Italian funding.
- Setting up of a National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental and Multiple Disabilities.

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II. Reforming the Social Deviants

14. The nodal Ministry of Social Justice and Empowerment has been implementing a scheme for Prevention and Control of Juvenile Mal-adjustment since 1986-87. The basic objective of this scheme is to provide full coverage of services in all the districts of the country as contemplated under the Juvenile Justice Act, 1986 (JJ Act). But, unfortunately, the mandatory specialized institutions under the JJ Act, 1986 are never maintained properly largely due to inadequate professional staff to man them. Many States are not able to avail themselves of the provisions of the centrally sponsored scheme because of their inability to contribute a matching share of 50%. The participatory approach in implementing the Act also needs to be revised so that expertise in the field , both governmental and non-governmental, can be made use of.

Box No. 4

Reforming the Social Deviants : Commitments of the Ninth Plan

i) To tackle the increasing problem of maladjustment:

- Effective enforcement of the Juvenile Justice Act (JJ Act), 1986 in close collaboration with both governmental and non-governmental organizations
- Maintain minimum standard of services in the various mandatory institutions set up all over the country under JJ Act, 1986
- Encourage more and more voluntary organizations to extend welfare-cum-rehabilitation services as part of reforming the children who come in conflict with law

ii) To control / reduce the ever increasing/emerging problems of alcoholism, drug addiction through -

- Launching of various awareness generation programmes to sensitize the people, especially the younger eneration to make them conscious of the ill effect of these problems
- Expanding the services of preventive, curative and rehabilitative services through counseling; running de-addiction camps / centres.
- Developing an integrated strategy involving all concerned to curb the ever increasing and inter-related problems of drug-addiction and HIV/AIDs
- Launching of awareness generation programmes/campaigns to educate / sensitize and make the people, especially the younger generation conscious of the ill effect of these problems.

15 15. Chief among some of the gaps in implementation were inadequate juvenile justice infrastructure, its appalling conditions, low priority given by the State Governments and lack of trained manpower. These had attracted the attention of Parliament and the media. Also, the National Human Rights Commission expressed its concern over tardy implementation of the Act and the miserable plight of the children coming under the purview of the Act. In response to all these, the scheme was revised in 1998 and renamed '*An Integrated Programme for Juvenile Justice*.' also, *a Juvenile Justice Fund* has been set up to bring about qualitative improvement in the infrastructure. For the first time, the Corporate Sector also came forward by offering its mite for the Social Defence services; a first Home of its kind under this Project has been taken up in Delhi.

16. A scheme for Prohibition and Prevention of Drug Abuse was launched in 1985-86 as a Central Plan Scheme to educate the community and create awareness about the ill-effect of these evils; provide motivational counseling, treatment and rehabilitation of drug addicts and work for their social re-integration; and to promote community participation and public cooperation for drug demand reduction. But the limited coverage has not been able to take the scheme to the needy groups and needy areas. States in the North Eastern region deserve special attention.

17. In fact, the State Governments have not developed ownership of this programme even though the spread of drug addiction and its lethal combination with HIV / AIDs have serious implications for them. At the back of this indifference is the centralized implementation and the scheme is in need of de-centralisation; activities of selection of NGOs, disbursement of funds, carrying out inspections, monitoring and valuation – these should be institutionalized at the District level with the State Social Welfare Department exercising nodal responsibility for it all. Eventually, the Scheme is best implemented by the Panchayati Raj Institutions and local bodies and they should set up facilities for de-addiction and rehabilitation and seek assistance of NGOs to manage those facilities.

III. Caring the Other Disadvantaged

18. To bring about a qualitative improvement in the services to Older Persons, the scheme of Assistance to Voluntary Organi-sations for Welfare of the Aged was revised in 1998 to make it very flexible. The new scheme - *'An Integrated Programme for Older Persons'* - -promises to meet diverse needs of the Aged including reinforcement and strengthening of the family and awareness generation on issues related to the Aged. As many as 238 old age homes, 487 Day Care Centres, 40 Mobile Medicare Units and 3 Projects of non-institutional services for the older persons are operational under the scheme.

19. T he Government also announced a National Policy for Older Persons in January 1999. The principal areas of intervention envisaged by the Policy include financial security; health care and nutrition; shelter / housing; education, training and information; protection for life and

property; provision of appropriate concessions, rebates and discounts to Older Persons; a Welfare Fund and a National Council for Older Persons. To translate the Policy into action and ensure equitable coverage, cost-effective operation and better convergence of programmes, emphasis needs to be laid on utilizing available institutions, government / semi-government machinery , Panchati Raj Institutions and local bodies. Currently, very few NGOs work in rural areas for welfare and development of the Aged. In the event, the elderly population in interior rural / backward areas is neglected. To over-come this, , there is a need to mobilize human and financial resources for the community in a big way.

Box No. 5
Caring The Other Disadvantaged : Commitments of the Ninth Plan

- Adoption of a National Policy for Older Persons
- Strict enforcement of the related legislations to curb the social evils like prostitution, beggary etc.
- Deal with the ever increasing problem o f Street Children
- Strengthen the immediate social institutions of 'Family' and the 'Community' so that they play a catalytic role in the effective implementation of various programmes for the Older Persons.

20. Also, there is no rationale for a Central Sector Scheme for Older Persons, which should legitimately be in the State Sector. In fact, such a scheme should be run by the Panchayati Raj Institutions because it falls under the domain of functions assigned to them by the 73rd amendment to the Constitution. Further, PRIs are the most appropriate levels where existing programmes for the elderly can converge. The Central Government should concentrate on formulating policies/ programmes, dovetailing policy prescriptions with sectoral planning, arranging for training, coordination and serving as a clearing house for ideas / suggestions for innovative experiments. Keeping in view the National Policy, services of supportive nature need to be developed at the local level; for this purpose, NGOs and local bodies in urban and rural areas should be strengthened and accepted as instruments for delivering these services.

21. In 1998, the Government also revised scheme for the welfare of street children to make for a broad based approach to their problems. Now named *'An Integrated Programme for Street Children,'* the revised scheme assists a wide range of initiatives which cover shelter, nutrition, health-care, sanitation and hygiene, safe drinking water, education, recreational facilities and protection against abuse and exploitation.

22. The Integrated Programme for Street Children is now being operated in 29 cities; about 112 voluntary organizations are involved in the programme. One of the important initiatives taken for the welfare of the children during 1998-99 was establishment of *a Child Line Service* in several cities. Child Line is a 24 hour free phone facility to all (by dialing the number 1098 on the telephone). It brings emergency assistance to the child; and based upon the needs, the child is referred to an appropriate organization for long-term follow-up care.

23. Despite the continuous efforts of the Government, street children continue to be in a precarious situation in all dimensions of life - civic, economic, social and culture. Any action to improve their lot, then, must be multi-faceted. They are easily victimized by anti-social elements and are forced into various kinds of anti-social activities like drug-addiction and related problems like HIV / AIDs. Effective steps need to be taken by involving the local bodies / law enforcement agencies and more of NGOs. Voluntary organizations which are already engaged in this area should be encouraged to look into this problem. The city level Task Force proposed under the scheme is not acting effectively; it needs to be strengthened for effective linkages and coordination.

State Sector Programmes

24. In the State Sector, there is a wide variety of social welfare programmes depending upon the nature and magnitude of those problems in different regions / States in the country. In a few States (mainly BIMARU States), Social Welfare programmes continue to be weak and lack perspectives. These need to be re-oriented keeping in view the emerging social problems and changing socio-cultural milieu of the region. In some States, social welfare programmes continue to be administered by more than one Department. The administrative machinery in several States is still continuing with a 'welfare-oriented' approach which is not equipped even to formulate proper schemes. Adequate attention is not given to induction of trained professionals / social workers and establishment of linkages with grass-root level workers and institutions. Also, the feedback from States / UTs continues to be dismal. As a result, no meaningful assessment is ever possible of the impact of various policies and programmes. To deal with the increasing and the most challenging problems relating to women, children and other social defence groups, the States / UTs should make special efforts to induct trained / professional manpower not only to formulate meaningful and need-based programmes but ensure effective implementation of those programmes. State-level social welfare administration needs to be reoriented with an inter-disciplinary mix of personnel, taking into consideration the policy / programme specifics and objectives.

Role of NGOs

25. Keeping in view the vastness of the country and the magnitude of the problems, NGOs have been involved in the implementation of various Social Welfare programmes. Their role has been to function as motivators / facilitators to enable the community to chalk out an effective strategy for tackling social problems. However, there are a few drawbacks in the implementation through NGOs, viz. namely - **i)** rigid rules and procedures; **ii)** most of the NGOs working in social welfare are urban based ; and **iii)** uneven spread of NGO services in various States / regions of the country. To overcome this situation, NGOs with credentials should be identified and a system of accountability established. Further, the NGO's involvement in a particular area should be, as far as possible, time-specific and its ultimate goal should be that once the community is capable of taking its own decisions, the NGO should shift to another area of operation, preferably where voluntary efforts need strengthening. There is also a need to encourage NGOs to build up their capacity to stand on their own. Also, steps need to be taken to forge coordination and linkages amongst NGOs working in a particular area; that will make for a wider coverage of the target group and effective utilisation of the scarce resources available. Finally, to ensure that the existing social welfare programmes do reach the rural areas, it is imperative that the NGOs should try and develop linkages with Panchayats, local bodies and other social service departments.

Resource Position

26. Towards the fulfilment of the Ninth Plan commitments, the Government has been implementing many policies and programmes for the well-being of the disabled and the social welfare groups. There exists a total Ninth Plan outlay of Rs. 1,208.95 crore fo;r this (Rs. 954.33 crore for the disabled and Rs. 254.62 crore for social defence). Under the State Sector, the Ninth Plan outlay for the social welfare sector (inclusive of women and children) is Rs. 3,349.62 crore, as per details given below :

27. The pace of progress during first three years of the Ninth Plan would show an expenditure of Rs. 447.70 crore (37.03%) has been incurred against a total Central Sector outlay of Rs.1,208.95 crore; that leaves a balance of Rs. 761.25 crore (62.97%) for the remaining two years of the Plan. The shortfall by 20 per cent (considering 60 per cent as ideal expenditure for three years) is mainly due to delays in the launching of two new schemes viz., Implementation of the Persons with Disability Act (Rs.104.14 crore) and National Programme for Rehabilitation of Persons with Disabilities (Rs. 9,4.05 crore). However, action is now being expedited to get these two programmes launched during the current financial year itself. For the Social Welfare Sector for States / UTs, the Ninth Plan outlay is of Rs.3,349.62 crore and an amount of Rs. 1,865.39 crore has been spent during the first three leaving a balance of Rs. 1,484.23 crore for the remaining period (2000-2002) of the Plan.

Social Welfare : Outlays & Expenditure during Ninth Plan

(Rs. in crore)

Sector	Ninth Plan (1997-2002) Outlay	1997-98 Actual	1998-99 Actual	1999-2000 BE	1999-2000 RE	Likely Exp. (1997-2000) (Col. 3+4+6)	%age (Col. 7 to Col. 2)	Balance (2000-2002) (Col. 2-7)	%age (Col. 9 to Col. 2)
1	2	3	4	5	6	7	8	9	10
I. Central Sector	**1208.95 (100.00)**	**87.01**	**153.64**	**245.00**	**207.05**	**447.70**	**37.03**	**761.25**	**62.97**
- Disabled	954.33 (78.94)	56.66	107.72	180.00	148.27	312.65	32.76	641.68	67.24
- Social Defence	254.62 (21.06)	30.35	45.92	65.00	58.78	135.05	53.04	119.55	46.96
II State Sector@	**3349.62 (100.00)**	**503.02***	**621.72***	**740.65**	**NA**	**1865.39****	**55.69**	**1484.23**	**44.31**

Note: Figure in parenthesis indicate the percentages.
@ Includes outlays for women and children
* Revised estimates.
** Revised estimates + BE (1999-2000)

CHAPTER 16

HEALTH

Improvement in health status of the population has been one of the major thrust areas in social development programmes of the country. This was to be achieved through improving the access to and utilization of Health, Family Welfare and Nutrition Services with special focus on under-served and under-privileged segments of population. The states fund infrastructure for delivering health care services; the Centre provides funds through Centrally Sponsored Programmes for combating major public health problems. Technological improvement and increased access to health care have resulted in steep fall in mortality but disease burden due to communicable diseases, non-communicable diseases and nutritional problems continue to be high. In spite of the fact that norms for creation of infrastructure and manpower are similar throughout the country, there are substantial variations between States and districts within a state in availability and utilisation of health care services and health indices of the population. The Special Action Plan for Health envisages improvement of the health services to meet the increasing health care needs of the population.

Current problems faced by the health care services include:

- Persistent gaps in manpower and infrastructure especially at the primary health care level.
- Sub-optimal functioning of the infrastructure; poor referral services.
- Plethora of hospitals in Government, voluntary and private sector; they do not have appropriate manpower, diagnostic and therapeutic services and drugs; Massive inter-state/ inter district hiatus in performance as assessed by health and demographic indices; availability and utilisation of services are poorest in the most needy states/districts.
- Sub optimal inter-sectoral coordination
- Increasing dual disease burden of communicable and non-communicable diseases because of ongoing demographic, lifestyle and environmental transitions,
- Technological advances which widen the spectrum of possible interventions
- Increasing awareness and expectations of the population regarding health care services
- Escalating costs of health care, ever widening gaps between what is possible and what the individual or the country can afford.

Health Care Infrastructure And Manpower.

Primary Health Care Services

2. The primary health care infrastructure provides the first level of contact between the population and health care providers. Realising the importance of the primary health care infrastructure in delivery of health services, States, Centre and several agencies simultaneously started creating primary health care infrastructure and manpower. This has resulted in substantial duplication of the infrastructure and manpower.

3. The primary health care infrastructure created include:

- Subcentres 134094 with 127384 ANMs in position
- Primary Health Centres (PHCs) 22991 with 24648 doctors
- Community Health Centres (CHCs) 2712 with 3624 specialists

  (Source : RHS bulletin December, 1997).
- Sub-divisional/Taluk hospitals
- The Department of Family Welfare supports personnel in 5435 rural family welfare centres, 871 urban health posts, 1083 urban family welfare centres, 550 district post partum-centres and 1012 sub-district post-partum centres.
- Under the Department of Indian Systems of Medicine & Homoeopathy (ISM&H) there are 22,104 dispensaries, 2862 hospitals and 300 medical colleges; (Source : Indian Systems of Medicine and Homoeopathy in India, 1998. Dept. of ISM&H, Ministry of Health & Family Welfare, New Delhi).
- Municipalities provide urban health services.
- Central Government Health Services (CGHS) provides health care for central Government employees.
- Railways , Defence and similar large Ministries/ Departments have their own hospitals and dispensaries to cater to health care needs of their staff.
- Public Sector Undertakings (PSUs) and large industries have their own medical infrastructure.
- Employees State Insurance (ESI) provides hospital and dispensary-based health care to employees
- All hospitals - primary, secondary or tertiary care — also provide primary health care services to rural and urban population.
- There are the voluntary organizations and the private sector which are providing heath care

4. It is important to take into account all these institutions and manpower before estimating the gaps. It

is possible to achieve substantial improvement in coverage and quality of health services by appropriately restructuring the existing infrastructure making them responsible for health care for the population in a defined geographic area. Substantial proportion of the manpower problems can be sorted out by reorientation and re-deployment of existing manpower. While there are several districts which have institutions well above their required norms, it is a matter of concern that many of the districts with poor health indices do not have adequate health infrastructure and here the need for the health services is very great. The Ninth Five Year Plan emphasised on the need to address the inequitable distribution of existing institutions and manpower as well as poor functional status due to mismatch between personnel and infrastructure, the need for orientation and skill upgradation of personnel and lack of appropriate functional referral system.

Progress and suggestions:

Rural Primary Health Care Services

5. A vast infrastructure for primary health care has been created but it is all functioning sub-optimally. The factors responsible for this condition at the rural institutions are:

- Inappropriate location, poor access and poor maintenance;
- Gaps in critical manpower;
- Mismatch between personnel and equipment;
- Lack of essential drugs/diagnostics and poor referral linkages;

Ongoing initiatives to improve access to Primary Health Care include:

- Strengthening/ relocating Sub-centres/ PHCs;
- Merger, restructuring, re-locating of hospitals/ dispensaries in rural areas and integrating them with existing infrastructure;
- Re-structuring existing block level PHC, Taluk, Sub-divisional hospitals (states like Himachal Pradesh have undertaken this);
- Utilising funds from Basic Minimum Services (BMS), Additional Central Assistance for BMS and Externally Aided Project (EAP) to fill critical gaps in manpower and facilities;
- District level walk-in interviews for appointment of doctors of required qualifications for filling the gaps in PHC (States like M.P and Gujarat have reported limited success).
- Use of mobile health clinics - Orissa, Delhi - expensive and perhaps not sustainable;
- Appointment of doctors/specialists on part-time basis; and
- Adoption of PHC by NGO/Voluntary organisation/ industry.

Important Steps:

- Construction activity is taken up only when it is absolutely necessary.
- High priority is accorded to filling the reported large gap in the vital CHC/First Referral Unit (FRU) by redesignation and strengthening, providing appropriate equipment and consumables and drugs required.
- Retraining and skill upgradation of male workers in vertical programmes and their redeployment as male multi-purpose workers.
- Correct mismatches between infrastructure/equipment and manpower to make institutions fully functional

Urban Primary Health Care Services

6. Nearly 30% of India's population lives in urban areas. There is either non-availability or substantial under utilisation of available primary care facilities along with an over-crowding at secondary and tertiary care centres. Nagar Palikas, State Govts., Central Ministries and EAPs provide funding for building upgradation and re-structuring urban primary health care infrastructure and establishing effective linkages.

7. The Planning Commission has provided Additional Central Assistance to:

- Punjab for development of urban primary health care centres and establishing of linkages with secondary and tertiary hospitals in Amritsar City;.
- Strengthen existing dispensaries in under-served East Delhi and establish referral linkages with secondary care institutions in the region;
- Reorganisation of urban primary and secondary health care infrastructure and building up referral linkages at Nasik.

8. The progress in these and similar initiatives by State Governments is being monitored.

Tribal Health

9. The tribal population is not a homogeneous one. In North Eastern States, the tribals have high literacy levels; they access available health facilities and their health and

demographic indices are better than the national level though the region is endemic for malaria. On the other hand, the Onges in Andaman and Nicobar remain a primitive tribe with very little access either to education or to health care. Differential area-specific strategies are therefore being developed for each of the tribal areas to improve access to and utilisation of health services.

Ninth Plan Strategies to Improve Health Care in Tribal Areas:

- Ensuring availability of adequate infrastructure and personnel.
- Area specific Reproductive Child Health (RCH) programmes.
- 100% Central Plan funds for National Anti Malaria Programme.
- Focus on effective implementation of the Health & Family Welfare (FW) programmes.
- Close monitoring under Tribal Sub-plan, early detection of problems in implementation of all on-going programmes and midcourse correction.

Progress and Suggestions:

Successful Experiments in Improving primary health care to Tribals

- Andhra Pradesh - Committed, Govt. persons running health facilities in tribal areas
- Orissa – ACA for mobile health units with fixed tour schedule. Problem - Expensive, difficult to replicate
- Karnataka, Maharashtra- NGOs 'adopting' and running PHCs in Tribal areas - Success is mainly due to commitment of individuals and credibility of NGOs.

Problems:

Initiatives and commitment of key individuals are responsible for success. Difficult to replicate in a vast system.

Secondary Health Care

Priorities in the Ninth Plan include efforts to :

- Strengthen FRU (CHC/Sub-Divisional Hospital) to take care of the referrals from PHC/Sub Centres (SCs).
- Strengthen district hospitals so that they can effectively take care of referrals from the entire districts.
- Strengthen referral system and rationalise care at each level to:
  - Enable patients to get care near their residence
  - Ensure optimal utilisation of facilities at PHCs/ CHCs.
  - Reduce overcrowding at district and tertiary care levels.
- Provide adequate diagnostics, consumables and drugs
- Strengthen emergency services and management of high risk cases.

Progress & Suggestions:

10. In addition to funds from State Plan, several States have been seeking External Assistance to build up FRU/ District hospitals. So far six States have initiated such projects with external assistance from World Bank.

11. States have reported :

- Progress in construction works, procurement of equipment, increased availability of ambulances, drugs.
- Improvement in services following training to improve skills in clinical management, attitudes and behaviour of health care providers.
- Reduction in vacancies and mismatches in health personnel/infrastructure.
- Improvement in Hospital Waste Management,
- Disease surveillance and response systems have been initiated.

12. All these six States have attempted introduction of user charges for diagnostics and therapeutics from people above the poverty line. Initial problems have been sorted out. Some States are still unable to ensure retention of collected charges in the same institutions. This problem has to be speedily resolved. Referral system needs further strengthening. All states are also simultaneously strengthening primary health care infrastructure so that the referral linkages between primary and secondary care become operational. These measures need to be closely monitored.

Tertiary Health Care:

13. Along with an emphasis on enhancing the outreach and quality of primary health care services and strengthening the linkages with secondary care institutions, there is a need to optimise the facilities available in the tertiary care centres. At this level, there

is an ever-widening gap between what is possible and what is affordable, for the individual or for the country.

Tertiary Health Care

Problems:

- Growing demand for complex, costly diagnostic & therapeutic modalities
- Lack of skilled manpower, equipment & consumables to meet the demand
- Overcrowding

Ninth Plan priorities

- Provide funds for capacity building
- Levy user charges for people above poverty line
- Explore alternative modalities to meet the growing cost of care

Ongoing Activities

14. Several states (e.g. Rajasthan, UP) are trying out innovative schemes to give greater autonomy to these institutions, allowing them to generate resources and utilise them effectively. Some states e.g. Rajasthan and Kerala have been levying user charges and attempting to utilise the funds to improve hospital services. On an experimental basis, an attempt is being made to improve quality of services in tertiary hospitals under a Citizen's Charter for Central Government Hospitals in Delhi. The Charter aims to provide access without discrimination in those Delhi hospitals and put in place a redressal mechanism for public grievance.

16

Development Of Human Resources For Health

Health professionals - production and utilisation

15 Every year over 16,000 doctors graduate in the Modem System and over 11000 graduate in ISM&H. Two–thirds of the medical graduates under the modern system go in for post graduate training. Majority of the practitioners of both modem system and ISM&H are working in private/ voluntary sector.

16. With facilities available for training of medical graduates outstripping the need, the Medical Council Act was amended in 1993 to stipulate Central Government permission for any person to establish a medical college and to provide that no medical college would open a new or a higher course of study or training including a post graduate course of study or training or expand its admission capacity in any course of study and training. Even so, medical colleges are opened and existing under-graduate and post-graduate colleges continue to increase their seat capacities with permission from the Central Government.

17. There are continuing vacancies in primary, secondary and tertiary care institutions at the level of general doctors as well as of specialists both in Central and State institutions In order to ensure that vacancies of doctors in primary health care institutions are filled, several states are trying to make service in PHCs a pre-requisite for post graduate admission. Some states are also experimenting with appointment of doctors on contractual basis. As a long- term measure, the vacancies are sought to be filled by creating new medical teaching institutions and increasing the existing admission capacity. However, it would appear, the vacancies are not getting filled because of poor service conditions rather than lack of professionals being produced. Majority of the graduates and post graduates from the Modern System and ISM&H practice in private/voluntary sector.

Para-professional Production & Utilsation:

18. There was a major gap in para-professional production in the eighties. Facilities were created for training of male and female multipurpose workers, and currently there are adequate number of ANMs though there is still a dearth of male workers. However, there are several para professionals employed in various vertical programmes who are functioning as male unipurpose workers. The Ninth Plan has recommended adequate retraining, redeployment and integration of these workers into the existing primary health care institutions.

19. Para-professionals are trained in three categories of training institutions: existing Government institutions, private institutions and as a part of the 10+2 vocational training. The requirement of para-professionals has to be assessed in each district and appropriate training taken up preferably as a part of 10+2 Vocational Training Course. Utilisation of these vocational courses as a major mode of training para-professionals would enable districts to respond to the changing needs while enhancing career prospects for the para –professionals themselves.

Health manpower position at district level

20. Currently there is no mechanism for obtaining and analysing information on health care infrastructure and manpower (including private and voluntary sectors) in the district. In order to create such a data base, a Standing Technical Advisory Committee has been set up under the Chairmanship of Director General of Health Services. The Central Bureau of Health Intelligence has been entrusted with the task of compiling the data on rural and urban primary, secondary and tertiary health care infrastructure

and manpower in private, voluntary, industrial, governmental and other sectors.

Continuing medical education

21. Medical technologies are rapidly evolving; therefore, continuing education to update the knowledge and skills is essential for medical and paramedical personnel.. Ninth Plan advocates an integrated comprehensive in-service training programme for Health and Family Welfare. The programme is yet to be fully operationalised. For Govt., private and voluntary sector personnel there are ongoing training programmes conducted by National Academy of Medical Sciences, ICMR and professional associations. In addition, the Ninth Plan has proposed an increasing use of ' distance learning' by utilizing information technology (IT) tools currently available. Planning Commission has provided Additional Central Assistance to University of Health Sciences in Andhra Pradesh, Karnataka, Punjab and Tamil Nadu to accelerate IT upgradation efforts and networking between pre-service and in-service institutions for medical and para-medical personnel. The progress is being monitored.

New Initiatives In Ninth Plan

- Horizontal integration of vertical programmes
- Disease Surveillance and Response mechanism with focus on rapid recognition, report & response at district level
- Development of Integrated Non-Communicable Disease Control programme to be implemented through existing health care system.
- Health Impact Assessment as a part of environmental impact assessment in developmental projects.
- Appropriate management systems for emergency, disaster, accident and trauma care at all levels of health care.
- Improvement of Health Management Information System (HMIS) and supply logistics.

Progress and Suggestions :

Horizontal Integration of Vertical Programmes:

22. At the Central level attempts are being made to integrate the activities related to:

- Training, IEC in all CSS
- STD/RTI prevention and management under RCH and AIDS control Programme
- HIV/TB Control Programme Coordination

At state level:

- The Central Council of Health and Family Welfare has endorsed formation of composite Health and Family Welfare Societies at state and district level. States like Orissa and Himachal Pradesh have formed one Health and Family Welfare Society at state and district level to implement all health and family welfare programmes.

Disease Surveillance and Response

- A pilot project on development of a model disease surveillance system has been initiated in 20 districts. Development of disease surveillance system is also one of the components of the on-going Secondary Health Systems Project in many states.
- Specific on-going communicable disease control programmes e.g., National Anti Malaria Programme (NAMP) have a component of disease surveillance.
- Surveillance for polio is being intensified under the Family Welfare Programme.

All these have to be integrated into a single cohesive system for monitoring and responding to emerging health problems at district level.

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Hospital Waste Management

- Planning Commission provided ACA to National Capital Territory (NCT) of Delhi for a pilot project in hospital waste management which could be replicated in other States if found feasible.
- Several States are incorporating the Hospital Waste Management as a part of their Health Systems Project.

Environment and Health

- A number of cities have taken steps to reduce air pollution and water pollution. Delhi has promoted use of lead free petrol and utilization of CNG for vehicles. Efforts are under way to re-locate polluting industries away from the main city and improve waste management practices.
- Projects for prevention of water contamination, water quality monitoring are receiving increasing attention.

Health Sector Reforms

23. As a part of economic reforms, health sector reforms are perhaps inevitable. However, due care should be taken to ensure that the reforms do not shut out vulnerable groups access to health care nor result in deterioration of health status in poorer segments of the population.

24. In the last few decades there have been major advances in health care related technologies but many of them are very expensive. Some of the data from the developed countries suggest that widespread use of these would inevitably result in cost escalation but benefits in terms of improvement in the quality of life or increased longevity may not be commensurate with the cost. However, there is growing public awareness about the availability of these technologies and population tries to access these facilities.

Ninth Plan Policy:

1. Commitment to provide essential primary health care, emergency life savings services, services under National Disease Control programmes and National Family Welfare programmes free of cost to all, based on the need for care irrespective of their ability to pay.

2. Different states will evolve, implement, evaluate strategies for cost recovery for secondary, tertiary as well as super specialty care from people above poverty line and at the same time they will provide a mechanism for improving access to these services for people below poverty line. Based on the experience of these efforts future course of action will be charted out.

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25. So far the health sector has been targeting interventions at persons who are ill and need care, those who are at risk of becoming ill and those who are vulnerable and require specific protective measure. Services are being provided to all without any user charges irrespective of their ability to pay. This policy may be difficult to sustain in the future. There is an urgent need to evolve appropriate policy guidelines for funding of health care services to different segments of population. There has been an increase in the per capita income over the last two decades and therefore it might be time to try out levying user charges for diagnostic and therapeutic services from people above the poverty line; if found feasible this would enable the public sector health care institutions to improve their services.

26. Health insurance for individuals, families and for groups have been in vogue in many developed countries for several decades. While they do offer mechanism for meeting hospitalization costs for major ailments, there has been growing concern even in the developed countries that the system results in unacceptable escalation of health care cost without commensurate improvement in health care. Cost effective methods for meeting health care expenses need to be evolved. In addition, there is a need to promote healthy lifestyles and empower people to remain healthy. The Ninth Plan envisages a novel approach to promote healthy life style. The Plan suggests that the premium for health insurance may be adjusted on the basis of health status of the persons and age of the persons at the time of entry into health insurance; a yearly 'no claim' bonus could be given to those who have remained healthy and claimed no reimbursement of medical expenses. This could serve as an economic incentive for remaining healthy and adapting healthy life styles.

Control Of Communicable Diseases

27. At the time of Independence communicable diseases were a major cause of morbidity and mortality in the country. Efforts were therefore initially directed towards their prevention and control. Effective therapy for infections and vaccines to prevent infection caused a steep fall in crude death rate (from 25.1 in 1951 to 8.9 in 1996). However, the morbidity due to communicable diseases continues to be high. Deteriorating urban and rural sanitation, poor liquid and solid waste management and overcrowding have escalated the prevalence of common communicable diseases. The re-emergence of diseases like Kala Azar has added to the burden. Control of communicable diseases is becoming more difficult because of emergence of drug-resistant pathogens and development of insecticide-resistant vectors.

Strategies to improve performance of Disease Control Programmes during Ninth Plan:

- Rectify identified defects in design and delivery
- Fill critical gaps in infrastructure and manpower
- Make service delivery responsive to user needs
- Ensure skill upgradation, supplies, and referral services
- Improve community awareness, participation and effective utilisation of available services

National Anti Malaria Programme (NAMP)

28. During the Ninth Plan NAMP is being implemented through a modified plan of operations, assisted by the World Bank and has the following components :

- Early diagnosis and prompt treatment
- Selective vector control & personal protection
- Prediction , early detection & effective response to out breaks
- IEC

Control activities will be intensified in areas with:

- Annual Parasite Incidence (API) of > 2 in the last three years
- Plasmodium Falciparum (PF) rate of > 30%

TABLE - I

NATIONAL ANTI MALARIA PROGRAMME

YEAR	B.S.E. (in Million)	POSITIVE CASES	P.F. CASES	A.P.I (IN 1000)	ABER%	S.P.R%	S.F.R%	NO.OF DEATHS
1996	91.54	3.04	1.18	3.48	10.49	3.32	1.29	1010@
1997	89.45	2.66	1.01	3.01	10.11	2.97	1.13	879
1998 *	86.26	2.15	0.93	2.37	9.51	2.49	1.08	658
1998 **	49.83	0.91	0.38			1.84	0.76	221
1999 **	47.95	0.88	0.39			1.84	0.81	373

:Provisional, **:- comparative data for 1999 with corresponding period of 1998, as per reports received from states upto 25th Oct., 1999. @ :- Out of 1010 deaths, 926 are confirmed and 84 suspected dealths. This does not include 1794 fever related deaths from Haryana.

FINANCIAL SCENARIO

Rs. Lakhs

YEAR	OUTLAY	EXPD./RE
8TH PLAN	42500.00	59106.55
1996-97	14500.00	14366.76
9TH PLAN	100000.00	
1997-98	19000.00	14352.00
1998-99	29700.00	16393.97
1999-2000	25000.00	

Source : Annual Report 1999-2000, Ministry of Health and Family Welfare

- Reported deaths due to malaria
- 25% of the population is tribal

Targets for 2002

- Annual Blood Examination Rate (ABER) of over 10%
- API <0.5%
- 25% reduction in morbidity and mortality due to malaria

Progress and Suggestion :

29 The progress under NAMP is given in Table I. There has not been any substantial improvement over the last three years; utilisation of funds has been sub-optimal. The Programme was reviewed by the Government of India and World Bank in Feb.99. Progress has been slow in some interventions like introduction of medicated mosquito net and application of GIS for planning operation. It was recommended that Operational Research on vector control and selection of specific agencies by NAMP are to be taken up quickly.

Kala Azar:

30. Kala-azar is endemic in 36 districts in Bihar and 10 districts in West Bengal (population 75 million). Periodic outbreaks of Kala-azar with high morbidity and mortality continue to occur in these States. Over 90% of the reported cases and over 95% of the reported deaths are from Bihar. Over two- thirds of the cases in Bihar are reported from 7 districts.

Progress and suggestions:

31. There has been a decline in both Kala-azar cases and deaths in spite of inadequacy of the insecticidal spray operations and poor outreach of diagnostic services.

Year	Cases	Deaths
1996	27049	687
1997	17429	255
1998 (Prov.)	13342	217

It is important to ensure timely insecticidal spray, early detection and prompt treatment of Kala -azar patients

Revised National Tuberculosis Programme (RNTCP)

32. The National Tuberculosis Control Programme was initiated in 1962 as a Centrally Sponsored Scheme. The programme was aimed at early case detection in symptomatic patients reporting to the health system through sputum microscopy and X-ray and effective domiciliary treatment with standard chemotherapy. The Short Course Chemotherapy was initiated in 1983 and expanded in a phased manner. The Ninth Plan envisaged:

- RNTCP will be implemented in 102 districts
- NTCP will be strengthened in 203 SCC districts
- Strengthening of standard regime in remaining non-Short Course Chemotherapy (SCC) districts
- Strengthening of Central institutions, State TB Cells & State TB training Institutions

TABLE – IV
AIDS AND HIV INFECTIONS IN SEARO COUNTRIES AS OF 1st JULY 1997

COUNTRY	ESTIMATED HIV INFECTIONS	RATE PER 1,00,000 POPULATION*
BANGLADESH	<20,000	<16
BHUTAN	75	12
DPR KOREA	<100	<1
INDIA	2500000	262
INDONESIA	95000	47
MALDIVES	60	23
MYANMAR	350000	737
NEPAL	5000	22
SRI LANKA	6000	32
THAILAND	800000	1345
TOTAL	>3750000	>258

Source :- WHO SEARO – 1997

Progress and suggestions:

45. National AIDS Control Programme (NACP Phase II), a Centrally Sponsored Scheme was initiated in October 1999 and is funded by World Bank, DFID and USAID The project has the following five components: -

- Reducing HIV transmission among poor and marginalised section of the community at the highest risk of infection by targeted intervention, STD control and condom promotion;
- Reducing the spread of HIV among the general population by reducing blood borne transmission and promotion of IEC, voluntary testing and counselling;
- Developing capacity for community –based, low- cost care for people living with AIDS;
- Strengthening implementation capacity at the National, States and Municipal Corporation levels through the establishment of organisational arrangements and increasing timely access to reliable information; and
- Forging inter-sectoral linkages between public, private and voluntary sectors.

46. The performance under NACP is given in Table V.

47. It is important to achieve a paradigm shift in the National AIDS Control Programme:

- From raising awareness to changing behaviour
- Decentralised area-specific need assessment, planning, implementation and monitoring of intervention programmes
- IEC strategy to reach the unreached through emphasis on inter personal communication
- Participation of PRI and people themselves in the AIDS prevention and control programme
- Changing the emphasis from condom promotion to reinforcement of traditional ethos of mutually faithful monogamous relationships
- Improving utilisation of STD services in the governmental sector
- Emphasis on low cost strategies for prevention, counseling and care of HIV infected persons

It is imperative to build up:

- epidemiological data on time trends in the disease,
- details of specific interventions based on epidemiological data
- mechanisms for estimating requirements, unit costs, total costs,
- process and impact indicators to monitor the progress in interventions
- baseline figures and target to be achieved by the end of the project.

National Programme for Control of Blindness

Programme Priorities during Ninth Plan are :

- To improve the quality of cataract surgery, clear the backlog of cataract cases
- To improve quality of care by skill upgradation of eye care personnel
- To improve service delivery through NGO and public sector collaboration
- Increase coverage of eye care delivery among underprivileged population.

Targets for the period 1997-2002

17.5 million cataract operations; 100,000 corneal implants

Progress and suggestions:

48. The performance under National Blindness Control Programme (NBCP) in first two years of Ninth Plan is shown in Table VI.

49. A significant number of cataract operations are performed on unilateral cataract blind persons and on second eye of bilaterally blind persons. To clear the backlog of cataracts surgery has to be done at a rate of well over 400 operations per 100,000 population. However, only 3

TABLE - V
AIDS CONTROL PROGRAMME - ALL INDIA (Cumulative)

YEAR	No Screened (000)	SERO POSITIVE (000)	Sero-Positivity Rate (per 1000)	AIDS CASES	TOTAL NO. OF GOVT. BLOOD BANKS	HIV TESTING FACILITIES
1996-97	2816	225	8	2528	715	154
1997-98	3034	564	19	3551	715	154
1998-99	3413	824	24	6693	715	154
31st May 1999	3481	85666	25	7450	715	154

FINANCIAL SCENARIO

Rs. Lakhs

YEAR	OUTLAY	EXPD./RE
8TH PLAN	28000.00	27538.00
1996-97	14100.00	11537.00
9TH PLAN	76000.00	
1997-98	10000.00	12100.00
1998-99	11100.00	11100.00
1999-2000	14000.00	

states (Tamil Nadu, Andhra Pradesh and Maharashtra) have reached that level. An analysis of service data reports indicate that both in medical colleges and in district hospitals the cataract operations done per bed or operation per surgery days were far below the expected levels in most of the states. This under-utilisation of existing facilities needs to be corrected. In order to improve the quality of services and the follow-up, the programme has shifted from the camp approach to increased use of fixed facilities except in under- served areas.

Mid Term Evaluation:

50. A mid term evaluation of World Bank-assisted project carried out in 7 project states during 97-98 has revealed :

- an increase in the number of cataract operations performed in all those States.
- the performance is far less than desired level in Orissa and Rajasthan.
- Overall, 8.15 million operations (74%) have been performed against the Project target of 11.03 million operation

51. Revised National Blindness Control Programme (RNBCP) was drawn up for 1998-2002 to cover the entire country and will focus both on prevention of avoidable blindness and restoration of vision in those who have been already visually disabled irrespective of their capacity to pay. Over the years there has been a steady increase in patients who go for Intra Ocular Lens (IOL) implantation. At a tertiary care level where skilled surgeon and adequate post-operative care is available, use of IOL may be preferred but extending IOL services at or below district level with no such facility may have adverse consequences. Loss of vision after IOL implantation have been reported from different parts of the country. There is a need to document sequelae of IOL / Extra Capsular Cataract Extraction (ECCE) in tertiary, secondary, district and below district level and in camps. The programme has to define long term strategy and goals for eye care and has to provide for a close co-ordination between, Government, voluntary and private sector eye care providers.

Integrated Non-communicable Disease Control Programme

52. Growing numbers of aged population, urbanisation, increasing pollution, changing lifestyles, increasing longevity, change from traditional diets, sedentary life style and increase in the stress of day to day living have led to an increase in lifestyle related disorders and non-communicable diseases. It is essential that preventive, promotive, curative and rehabilitative services for NCD are made available throughout the country at primary, secondary and tertiary care levels so as to reduce the morbidity and mortality associated with NCD.

TABLE – VI
NATIONAL BLINDLESS CONTROL PROGRAMME

Unit	1997-1998		1998-1999		1999-2000
	Target	Achievement	Target	Achievement	Target
1	2	3	4	5	6
Cataract Operations (lakhs)	30.00	30.30	33.00	33.00	35.00
% IOL implantation	20.00	22.00	25.00	NA	30.00

FINANCIAL SCENARIO

Rs. Lakhs

YEAR	OUTLAY	EXPD./RE
8TH PLAN	10000.00	19297.00
1996-97	7500.00	5858.00
9TH PLAN	44800.00	
1997-98	7000.00	5834.00
1998-99	7500.00	7274.00
1999-2000	8500.00	5816.00*

Source : Department of Health *:- Finally allocated

Progress and suggestions:

- Central sector programme provides funds for strengthening facilities for Cancer Control, setting up distinct models for replication under national mental health project and for pilot projects on Diabetes control.
- Some states e.g. Kerala are making efforts to implement an integrated non-communicable disease control programme at primary and secondary care level with emphasis on prevention of Non-Communicable Disease (NCD), early diagnosis, management and building up of a referral system.
- Tertiary care centres are being strengthened to improve treatment facilities for management of complications.

16

53. An increase in NCD prevalence is anticipated over the next few decades, which is due at least in parts to changing lifestyles. Therefore, it is imperative that health education for primary and secondary prevention as well as early diagnosis and prompt treatment of NCD receive the attention it deserves.

Research

54. Indian Council for Medical Research is the nodal organisation for bio-medical research in the country. The process for modernization of several ICMR Institutes, upgradation of skills of scientific and technical personnel in modern biology and epidemiology, development of linkages and networking for bio-informatics as well as epidemiological activities has been initiated during the Ninth Plan period. These efforts would be expanded. Steps are being taken to strengthen and develop country's research and development (R&D) facilities. ICMR is establishing a Microbial Containment Complex to do studies on new as well as re-emerging infections under maximal bio-safety conditions.

55. Development and spread of multi-drug- resistant infections poses a threat to controlling communicable diseases. It is planned to set up laboratory-based monitoring network for research studies on new and re-emerging infections and antibiotic resistance monitoring in different regions of the country. These data will be of use for formulation of national treatment policies and prescription practices, identifying outbreaks of resistant infections and promoting research for new drug development. Operation Research (OR) studies for development and implementation of site-specific disease control, RCH strategies are being initiated. Sentinel sero- and behavioural surveillance for STDs including HIV is planned to generate data for targeting interventions, evaluation of impact of interventions, advocacy and planning.

56. Some of the priority areas for research in non-communicable diseases are community based intervention programmes for control of Rheumatic fever and Rheumatic heart diseases, OR studies for prevention and control of mild essential hypertension and coronary heart disease at community level, assessment of unmet treatment needs of the mentally ill in rural areas, identification, management and prevention of occupational health hazards and health problems due to environmental deterioration.

Outlay : State sector

57. The Outlay and expenditure in first three years of the Ninth Plan are shown in Table VII.

58. State Governments are required to take several critical steps to improve functional status and efficiency of the existing health care infrastructure and manpower. These measures are:

- Restructuring of the health care infrastructure,
- Redeployment of manpower and skill development,
- Development of a referral network,
- Improvement in the health management information system, and,
- Development of disease surveillance and response at district level.

The centrally sponsored disease control programmes and the family welfare programme provide funds for additional manpower and equipment; these have to be appropriately utilised to fill critical gaps. The ongoing and the proposed EAPs are additional sources for resources. Health is one of the priority sector for which funds are provided in the central budget under the head Additional Central Assistance (ACA) for basic minimum services. The States will also be able to utilise these funds for meeting essential requirements for energizing urban and rural health care.

Centre

59. Health is one of the sectors identified under the Special Action Plan. In addition to the funds available from Domestic Budgetary Support, several centrally sponsored disease control programmes are receiving funds from EAPs. The following are such sponsored programmes which have received funding from the World Bank:

- National Leprosy Eradication Programmes
- National Programme for Control of Blindness
- Revised National Tuberculosis Control Programme
- National Malaria Eradication Programme
- National AIDS Control programme – Phase II

60. These programmes provide diagnostics, drugs, equipment, training and capacity building for implementation, monitoring and mid-course correction in these disease control programmes. In addition, central sector institutions i.e. National Institute of Biologicals and Kalavati Saran Hospital have been receiving funds for strengthening and expansion from external agencies. Table VII provides outlay for Health sector during first three years of the Ninth Plan.

Table VII

APPROVED OUTLAY AND EXPENDITURE FOR HEALTH

Rs. in Crores

Eighth Plan Outlay (1992-1997)	Ninth Plan Outlay (1997-2002)	1997-98 (B.E.)	1997-98 (Actual)	1998-99 (B.E.)	1998-99 (Actual)	1999-2000 (B.E.)	1999-2000 (R.E.)	2000-2001 (B.E.)
1712.00	5118.19	920.20	716.15	1145.20	814.34	1160.00	1010.00	1300.00

CHAPTER 17

FAMILY WELFARE PROGRAMME

Introduction

Population growth and changes in age structure are inevitable during demographic transition Over the last four decades there has been rapid fall in Crude Death Rate (CDR) from 25.1 in 1951 to 9.8 in 1991 and less steep decline in the Crude Birth Rate (CBR) from 40.8 in 1951 to 29.5 in 1991. As a result, the annual exponential population growth rate has been over 2% between 1960-1990. In the nineties the growth rate declined below 2% as decline in CBR was steeper than CDR and India entered the demographic opportunity window. The rate of decline in population growth is likely to be further accelerated during next decade. It is a matter of concern that though the decline in CBR and CDR has occurred in all States, the rate of decline in CBR was slower in some States like U.P. and Bihar. There are substantial variations in CBR and Infant Mortality Rate (IMR) among the States and even within the same State there is substantial differences between districts.

Population Projections & Implications to FW programme

2. The population of the country was 846.3 million in 1991 as recorded in the census. As per projections made in the Report of the Technical Group on Population Projections the estimated population in the census years 2001 and 2011 will be 1012.4 million and 1179 million respectively. There are differences between states on their current population as well as their potential to contribute towards increase in country's population during 1996-2016.

3. Five states of Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan and Orissa, which constituted 44% of the total population of India in 1996, will constitute 48% of the total in 2016, according to projections. These states will contribute 55% of the total increase in population of the country during the period 1996-2016. The way these states perform will determine the time and size the country's population will stablise. In each state there are districts with health indices comparable to the national levels; these experiences have to be studied and replicated to achieve a faster decline in their mortality and fertility rates.

4. In all these five states the performance in the social and economic sector has been poor. The poor performance is the outcome of poverty, illiteracy and poor development – ills that co-exist and reinforce one another. All these states have excellent human, mineral and agricultural potential which have not been fully utilized or realised. It is imperative that all steps are taken to ensure that these states achieve their full potential in the shortest possible time through planned coordinated efforts by all sectors.

5. **The current high population growth rate is due to:**

(i) the large size in the reproductive age-group (estimated contribution 60%);

(ii) higher fertility due to unmet need for contraception (estimated contribution 20%); and

(iii) high wanted fertility due to prevailing high IMR (estimated contribution about 20%).

Ninth Plan Objective:

Reduction in the population growth rate by:

- meeting all the felt-needs for contraception; and
- reducing the infant and maternal morbidity and mortality so that there is a reduction in the desired level of fertility

Plan Strategies :

- Assess the needs for reproductive and child health at Primary Health Centre (PHC) level and undertake area- specific micro planning; and
- Provide need-based, demand-driven high quality, integrated reproductive and child health care.

Paradigm shift envisaged in the Ninth Plan include shift from:

- demographic targets to focus on enabling couples to achieve their reproductive goals and reducing infant mortality to reduce high desired fertility
- method- specific contraceptive targets to meeting unmet needs for contraception to reduce unwanted pregnancies
- numerous vertical programmes for family planning and maternal and child health to integrated reproductive and child health care
- centrally defined targets to community need assessment and decentralized area specific micro planning and implementation of the Reproductive and Child Health (RCH) programme
- quantitative coverage to emphasis on quality and content of care

- predominantly women centered programme to meeting the couples' needs with emphasis on involvement of men in Planned Parenthood
- supply driven service delivery to need and demand driven service with improved logistics for ensuring adequate and timely supplies to meet the need
- service provisions based on providers perception to addressing choices and conveniences of couples

Ninth Plan envisages that efforts will be intensified to enhance the quality and coverage of family welfare services through:

- Increasing participation of general medical practitioners working in voluntary, private, joint sectors and the active cooperation of practitioners of Indian Systems of Medicine & Homoeopathy (ISM&H);
- Involvement of the Panchayati Raj Institutions for ensuring inter-sectoral coordination and community participation in planning, monitoring and management;
- Involvement of the industries, organised and unorganised sectors, agriculture workers and labour representatives.

17

Contraception

Ninth Plan Strategy:

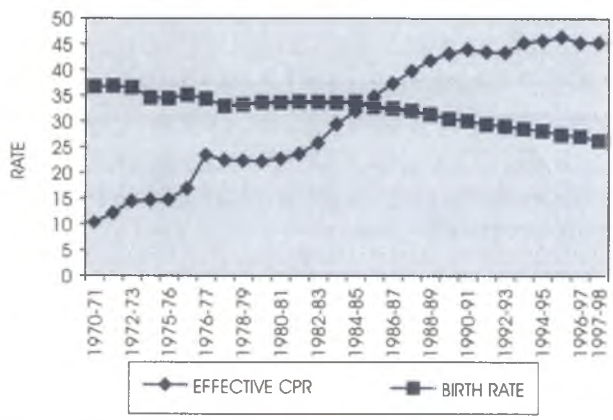
To meet all the unmet needs for contraception by 2002 through improving availability, access and quality of contraceptive care.

Progress & Suggestions

6. Time trends in Couple Protection Rate (CPR) and Birth Rate (CBR) is shown in Figure-1. Inspite of the fact

Figure 1

COUPLE PROTECTION RATE & BIRTH RATE

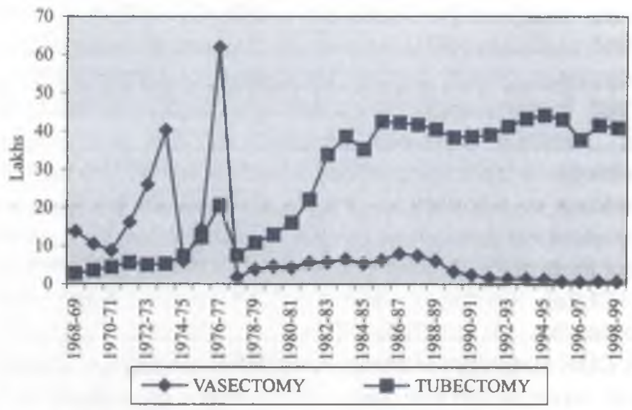


Source:- Registrar General India
Department of Family Welfare

that CPR remained unaltered in the Ninth PLan period there has been a steady decline in CBR suggesting that over the years there has been an improvement in the acceptance of appropriate contraception at appropriate time. Currently the FW Programme is focusing its attention on need assessment, balanced presentation

Figure 2

ACCEPTORS OF VASECTOMY & TUBECTOMY



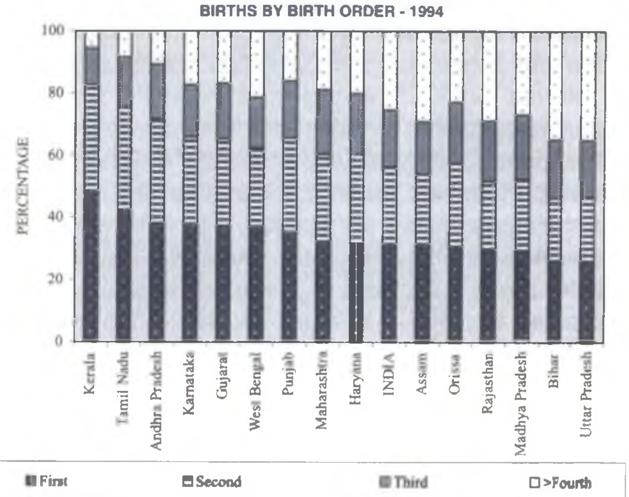
Source:- Department of Family Welfare

of advantages and disadvantages about all the available methods of contraception counseling, provision of appropriate contraceptive at the right time and good follow-up services. Effective implementation of the FW programme and ensuring that all the unmet needs for contraception are met will result in substantial improvement in CPR and enable rapid reduction in CBR.

7. Over the last two decades there has been a steep fall in number of vasectomies (Figure-2). At the moment, over 97% of all sterilisations are tubectomies. The Department of Family Welfare has intiated steps to re-

Fig-3

STATEWISE PERCENTAGE DISTRIBUTION OF BIRTHS BY BIRTH ORDER - 1994



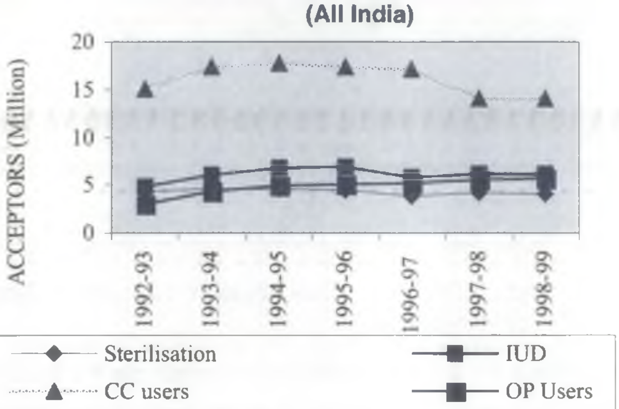
SOURCE : YEAR BOOK, 1996-97 - DEPARTMENT OF FW popularise vasectomy by addressing concerns and conveniences of men and introducing newer techniques. The reported success in some districts in AP has to be replicatd in other districts and states. If this were done it will be possible to improve access to sterilization services in underserved areas and simultaneously achieve reduction in the morbidity associated with sterilisation because vasectomy is a simpler and safer method than tubectomy.

8. Percentage distribution of birth order in major states is shown in Figure-3. It is obvious in most of the poorly performing states over half of the women have two or more children and are likely to require permanent methods of contraception sooner or later. The number of sterilization/ 10,000 unsterilised couples with two or more children is low in Bihar (110), UP (188), Rajasthan (447) and MP (523) as compared to TN (934), Karnataka (1297) and AP (1230). There is an urgent need to improve access to contraceptive care including sterilization in poorly performing states. On the other hand in some of the better performing states an inreasing number of women may desire to postpone the first or second pregnancy and there may be a progressive increase in the need for spacing methods. Contraceptive need assessment, counseling, improved quality of initial and follow-up care would go a long way in meeting the felt needs of contraception in the population and accelerate the decline in fertility.

9. The data on acceptors of different methods of contraception during the Ninth Plan period is given in the Figure-4. In 1996-97 the Department of Family Welfare

Figure-4

ACCEPTORS OF FP METHODS
(All India)



SOURCE:- Department of Family welfare

abolished the system of centrally determined method-specific targets for Family Planning; the states were requested to undertake a PHC based need assessment and attempt to meet all the felt needs for contraception. Comparison of performance between the periods before and after abolition of method-specific targets indicate that at the national level there had been a reduction in the acceptance of sterilization, IUD and conventional contraceptives; only acceptors of oral contraceptives have shown an increase in number. There are however substantial differences between the service reporting and the coverage evaluation studies. Data from NFHS –2 clearly indicated that there has been improvement in CPR especially sterilization. The reason for the reported differences may have to be looked into and rectified so that service reporting provides dependable method of monitoing the programme

Performance in States with Poor Demographic Indices

10. The performance of four states with poor demographic indices is shown in the Figures-5&6. In UP and Bihar there has been decline in performance even as compared to their past performance. In MP the decline is marginal while in Rajasthan there has been an improvement in both permanent and temporary method use.

Figure-5

Acceptors of Sterilisation

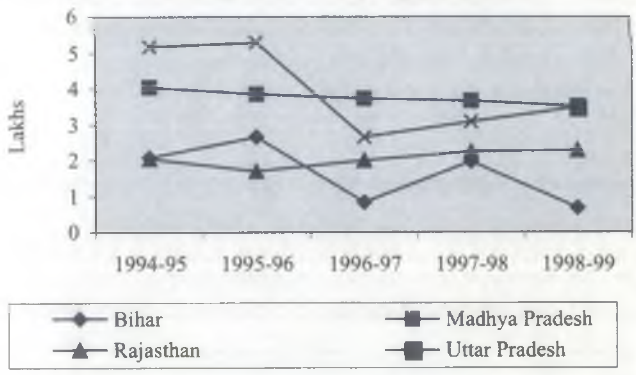
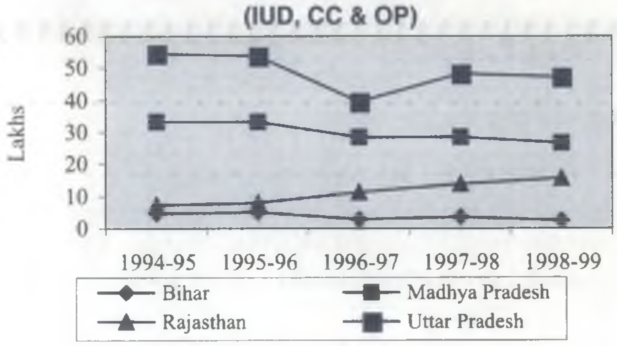


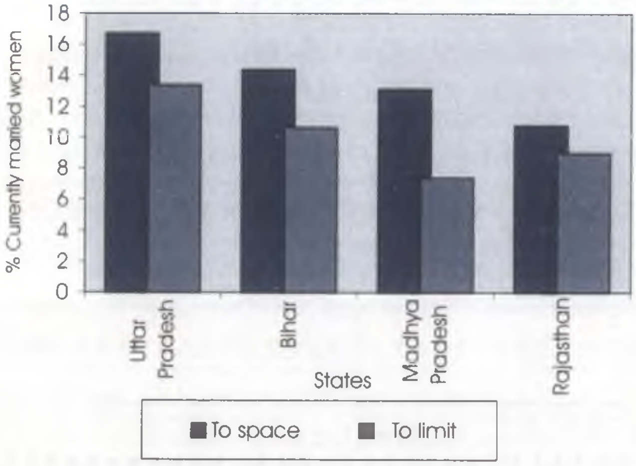
Figure-6

Acceptors of Spacing Methods
(IUD, CC & OP)



11. It is noteworthy that these four states have the largest proportion of unmet needs for family planning both for terminal and spacing methods (Figure-7). This unmet need has to be met by improving availability, access and quality of care.

Figure-7
Unmet need for FP methods (NFHS-1992-93)



12. The district surveys conducted by the Department of Family Welfare confirm the available data from census that some districts in these states have birth rate and infant mortality rate well below the national average and substantially below the state level. The states have to study and replicate these successful experiences within the state and also strive to meet all unmet needs in better performing districts.

Medical Termination of Pregnancy (MTP)

> **Ninth Plan Iinitiatives:**
>
> Efforts are to be made
>
> - to improve access to family planning services and to reduce the number of unwanted pregnancies
> - to cater to the demand/request for MTP
> - to improve access to safe abortion services by training physicians in MTP and recognising and strengthening institutions capable of providing safe abortion services

Progress and suggestions

13. Additional MTP training centres are being recognised to accelerate the skill development training of Community Health Centre (CHC)/PHC doctors. Steps are being taken to supply equipment to CHCs/FRUs, send doctors trained in MTP to PHCs/CHCs once a week for improving access to MTP services. Efforts are under way to streamline the procedures for recognition of institutions for MTP and improve reporting of MTP. There is a need to accelerate pace of these processes and monitor the impact both in terms of coverage, number of MTP reported and reduction in number seeking illegal abortion and suffering adverse health consequences.

Maternal Health Programme

14. The prevailing high maternal and prenatal morbidity and mortality is a source of concern. It is noteworthy that there has not been any substantial decline in these indices in the last two decades.

> **Ninth Plan Aim & Strategy:**
>
> Focus on Essential Obstetric care aimed to achieve substantial reduction in maternal morbidity and mortality through:
>
> - Early registration of pregnancy (<16 weeks).
> - Screening of all pregnant women at least thrice in pregnancy for detection of risk factors
> - Appropriate referral and care for at risk person
> - Safe delivery

15. Awareness generation and skill upgradation training are under way to improve utilization of care and to improve quality and contents of care. The states are making efforts to improve antenatal and intra-partum care facilities. Contractual appointment of additional Auxiliary Nurse Midwifes (ANM) to improve coverage and Public Health Nurse/Staff Nurse (PHN/SN) to improve institutional deliveries are being taken up in Assam, Bihar, Haryana, Rajasthan, Orissa, Nagaland, Uttar Pradesh, and Madhya Pradesh. In addition, provision for equipment for essential obstetric care has also been made. Safe delivery component of the RCH Programme is specifically being strengthened with provision of disposable delivery Kits and training of Dais in Assam, Bihar, Rajasthan, Orissa, Uttar Pradesh and Madhya Pradesh where most of the deliveries are still conducted at home. Training of Dais is also continuing in these States.

> **Initiatives to promote institutional deliveries**
>
> - Honorarium to staff who are available round the clock
> - Tamil Nadu – 24 hour PHCs with additional Nurse
> - Andhra Pradesh – Incentives to Women seeking institutional deliveries
>
> **Initiatives to Promote safe home deliveries in poorly performing states**
>
> - Screening of all pregnant women to detect and refer high risk group
> - Training Traditional Birth Attendants (TBA) regarding danger signals and timely referral
> - Promotion of use of disposable delivery kits to reduce infection

16. Tamil Nadu is strengthening PHCs with additional staff so that 24-hour delivery services are available at PHCs. The ANC and deliveries in PHCs are being monitored on a monthly basis; PHCs with low number of deliveries are picked up through this monthly monitoring and appropriate remedial measures are being initiated.

17. Complications associated with pregnancies are not always predictable. Therefore, emergency obstetric care is an important intervention to prevent maternal mortality and morbidity. Under the CSSM programme, 1,748 referral units were identified and strengthened. However, they did not become fully operational due to lack of skilled manpower, adequate infrastructure, equipment and medicines. Under the RCH Programme, the FRUs are being strengthened through supply of drugs in the form of Emergency Obstetric drug kits and equipment kits; the programme provides for hiring of skilled manpower e.g. anesthetist on contractual/part time basis.

Reproductive Tract Infection (RTI) And Sexually Transmitted Infections (STI): Prevention & Management

Ninth Plan Strategy

STI/RTI prevention, detection and management in women is a priority area as a part of essential RCH care at all levels of health care

Progress & Suggestions

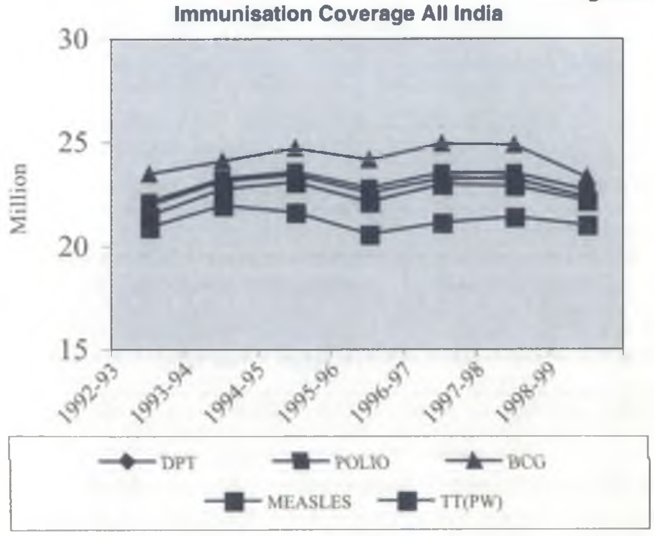
18. RTI/STI prevention and management component of RCH programme is being planned and implemented in close collaboration with NACO. Guidelines on RTI/STI prevention and detection for paramedical workers like ANMs/ Lady Health Visitors (LHV) have been developed and distributed to all districts of the country to enable the health workers to identify RTI/STI cases for counselling and referral for further treatment. Under the programme, NACO provides assistance for setting up RTI/STD clinics upto the district level and Department of Family Welfare (FW) assists in setting up RTI/STI clinics in selected First Referral Units (FRU) in a phased manner. In addition Deptt. of FW provides training of personnel and drugs for treatment, similar to those being provided by NACO, to these FRUs under RCH Programme; each district will also be assisted to engage two laboratory technicians for doing routine blood, urine and RTI/STIs tests at FRUs. Funds for appointment of laboratory technician on contractual basis in FRUs have been released to several states. The progress is being carefully monitored.

Universal Immunization Programme

19. Immunization programme began in 1978 with the objective of reducing morbidity and mortality associated with Vaccine Preventable Diseases (VPD). It was taken up as a National Technology Mission in 1986 and covered the entire country during 1989-90. Immunization coverage reported by the Department of Family Welfare during nineties is shown in Figure-8.

Figure-8

Immunisation Coverage All India



20. It is a matter of concern that there has been a fall in routine immunization. It is obvious that the target of 100% coverage for all six Vaccine Preventable Diseases has not been achieved. Several states have reported substantial decline in routine immunization. It is imperative that factors responsible for the decline are identified and corrected so that the target of 100% routine immunization coverage is achieved.

21. Coverage Evaluation Surveys (National Family Health Servey-NFHS, UNICEF 1998) indicate that only about 50% of infants get immunized against 6 VPD in the first year. There are substantial differences between coverage reported by service agencies and observed coverage in evaluation surveys. Though there has been substantial decline in VPD over the last decade, the goal of elimination of polio and neonatal tetanus by 2000 have not be achieved.

22. Reported factors responsible for poor coverage range from vacancy at ANM level (40% in Bihar), poor mobility, poor access, problem in distribution and storage of vaccines, lack of supervision and monitoring, poor cold chain maintenance and ongoing campaign mode programmes disrupting routine activities. It is imperative these are corrected and the goals set are achieved.

Pulse Polio Immunization (PPI)

Strategy for the Ninth Plan

In 1995 Department of Family Welfare initiated the Pulse Polio Programme to eliminate polio by 2000 AD; the strategy was to provide two doses of polio vaccine to all children below 5 years of age in addition to routine immunization for polio under Universal Immunization Programme. It was envisaged that with 100% routine immunization and two rounds of Pulse Polio Immunization, the country will achieve zero polio incidence by 2000.

23. The Central Government reviewed the PPI Programme in 1998 and 1999. Data from the states showed that:

- Under routine immunization programme the coverage is around 90%. In some states like Bihar it is as low as 40%;
- Coverage under PPI is also around 90%;
- There has been a steep decline in polio cases reported; (Figure)
- No state is totally free of cases or wild virus;
- With the present strategy and pace of implementation the country would require 8-10 years to eliminate polio.

24. With a view to accelerating the pace and achieve elimination of polio by 2000 winter, the Expert Group recommended the following strategies for achieving zero incidence of polio by the end of 2000:

a. near 100% vaccination for polio under Universal Immunization Programme (UIP).

b. Four nationwide PPI rounds

c. two additional PPI rounds in eight states i.e., UP, MP, Bihar, Rajasthan, West Bengal, Gujarat and Orissa. In each round after initial booth based immunization, efforts will be made to identify unimmunized children by house visits and immunize them.

d. surveillance to detect all cases of polio and

e. controlling spread of infection around detected polio cases by immunizing all children in the surrouding areas

25. In May 2000 the situation was reviewed. Polio surveillance in all states has shown substantial improvement. There has been a steep reduction in the number of cases reported in the country but inspite of six round of immunisation UP, Bihar,WB and Delhi had not shown a substantial decline in the proven cases of polio. These states contribute over three fourth of the total cases in the country. There has been a fall in routine immunization and reduction in coverage in MCH programmes during the year 1999- 2000. It has been decided that during 2000-2001 there will be two nationwide rounds of pulse polio immunization in December 2000 and January 2001, one sub national round of immunization in the high and mid burden zones and an additional sub national round in the high burden zone. Every effort will be made to improve routine immunization.

National Polio Surveillance Programme (NPSP)

26. National Polio Surveillance Programme was started in 1997 with DANIDA and USAID assistance and is working under the management of World Health Organization (WHO). The programme has helped in detection of cases, case investigations, laboratory diagnosis and mop-up immunization. It is proposed that the management of NPSP is ultimately transferred to the Government of India (GOI). The programme will slowly introduce surveillance of other vaccine preventable diseases. It is a matter of concern that during the nineties there has not been any substantial progress in this regard.

Child Health Programmes

27. In the nineties the reduction in IMR has been slow. Over the last two decades the peri-natal and neo-natal mortality rates have not declined (Figure-10).

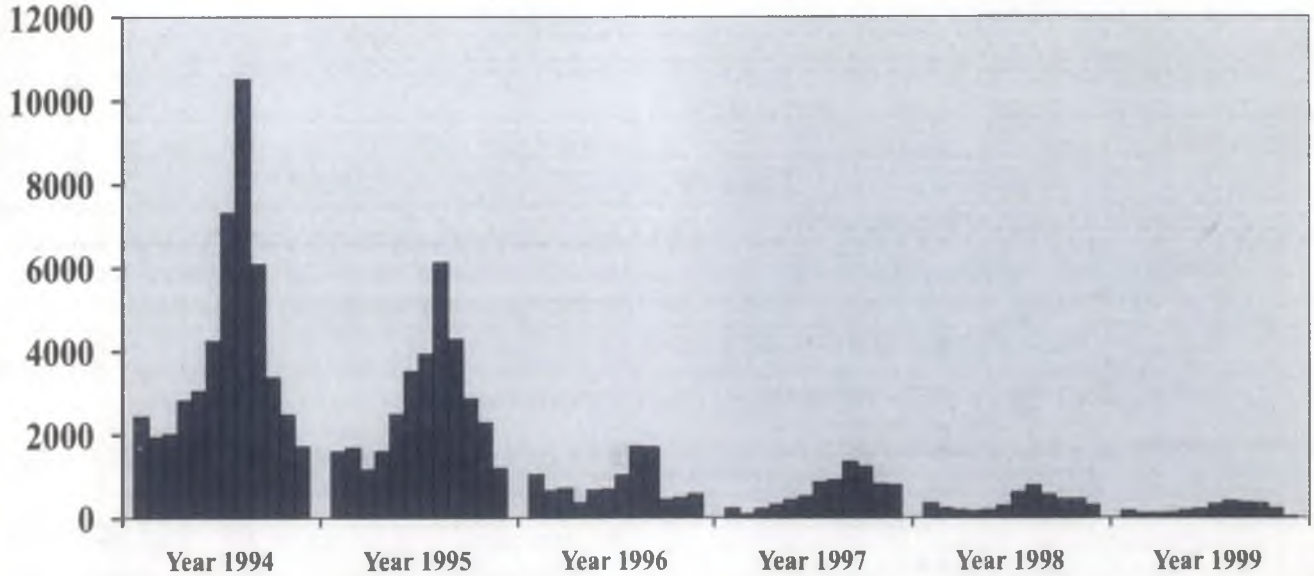
Ninth Plan Strategy & Goal:

- To reduce infant and under five mortality and morbidity so that there is a reduction in desired level of fertility.
- In all states reduction in peri- natal and neonatal mortality will be achieved through universal screening for risk factors during pregnancies, labour and neonatal period, identification and referral of 'at risk' mother and neonates to facilities where appropriate care could be provided.
- Simultaneously efforts will be made to reduce IMR due to infections and under nutrition by appropriate interventions

Essential Newborn Care

28. Equipment for essential newborn care has been supplied to all districts in the country under the RCH Programme. Medical officers and para medical personnel are being trained at the district hospitals and medical colleges in the use of the equipment to provide essential newborn care. States have been advised to send proposals for filling the gaps in equipment to augment the available facilities. Proposals received from 8 States are being

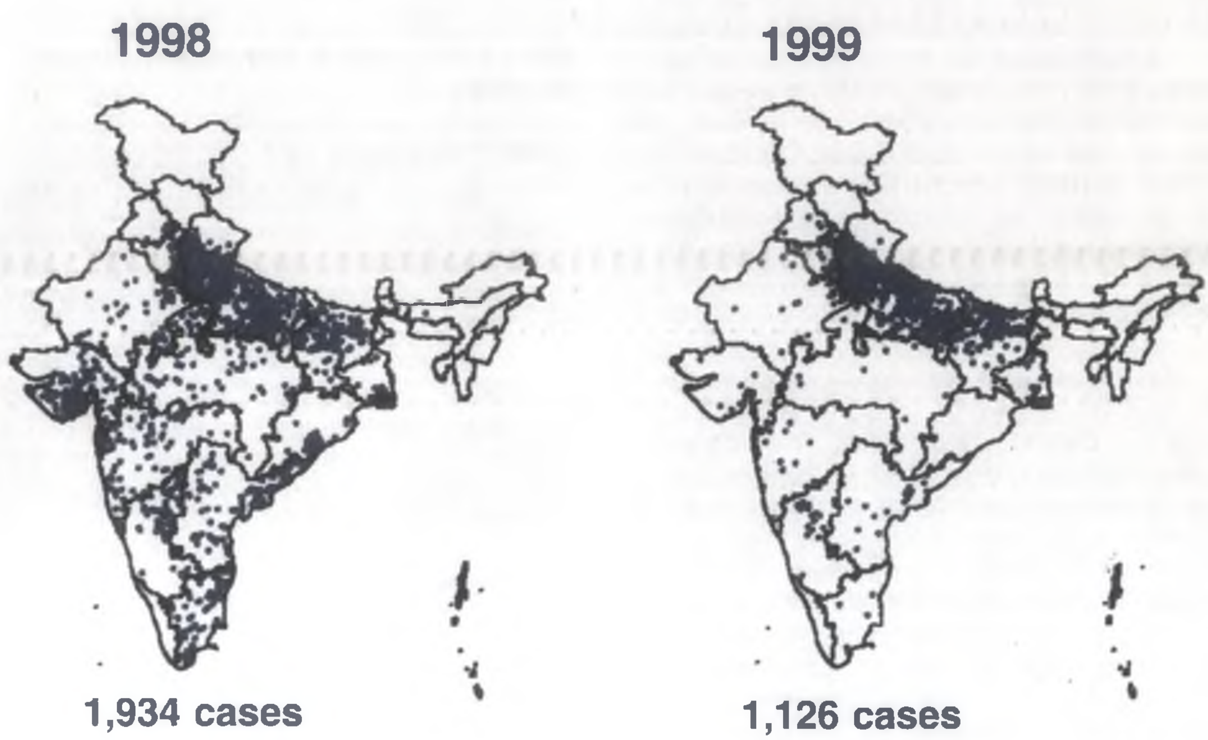
Monthly incidence of polio in India, January 1994 – December 1999 *



17

Locations of polio virus in India

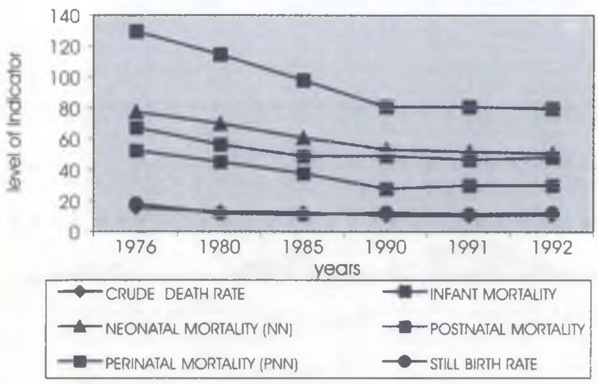
1 dot = 1 case



processed. This component of child health care requires focussed attention during the Ninth Plan so that the goal set can be met. It is important to put into operation this component and achieve reduction in neonatal and peri-natal mortality in all states to achieve further reduction in IMR; This is specially important in states where IMR is below 60/1000.

Figure-10

MORTALITY INDICATORS-ALL INDIA



Source:- Registrar General India

Diarrhoeal Disease Control

29. Diarrhoea is one of the leading causes of death among children. The Oral Rehydration Therapy Programme was started in 1986-87 and implemented in a phased manner. During 1997-98 and 1998-99 provision was made for supply of 400.50 lakh ORS packets in each year as a part of the sub-centre kits. In order to make Oral Rehydration Solution (ORS) packets widely available, States have been advised to market ORS packets through the Public Distribution System. The programme requires focussed attention in states with high infant mortality; effective implementation of this simple intervention can result in substantial decline in IMR in states with high IMR.

Acute Respiratory Infections Control

30. Pneumonia is a leading cause of deaths of infants and young children in India, accounting for about 30% of the under-five deaths. The programme includes the training of ANM on recognition of pneumonia and its treatment with cotrimoxazole. The programme is now being implemented in all districts in the country. Rational treatment of ARI and prevention of deaths due to pneumonia is now an integral part of the RCH Programme. There is a need to improve coverage and quality of care under these programmes especially in states where infant mortality continues to be very high.

Health Care For Adolescents

Ninth Plan Strategy

At the moment there are no specific health or nutrition programmes to address the problem of adoloscents. Efforts to educate the girl, her parents and the community to delay marriage will receive focussed attention during the Ninth Plan. There is an urgent need to mount programmes for early detection and effective management of nutritional (under-nutrition, anemia) and health (infections, menstrual disorders) problem in adolescent girls.

31. The following initiatives have been taken during the Ninth Plan:

- health care needs of adolescents are being addressed under the RCH Programme
- Inter-sectoral coordination with Integrated Child Development Scheme (ICDS) is being strengthened in blocks where ICDS Centres have an adolescent care programme.
- proposals for specialised counselling and Information Education and Communication (IEC) material to be provided through Non Governmental Organizations (NGOs) are being sought under the NGO programme.

The progress in the efforts will have to be carefully monitored.

Men's Participation In Planned Parenthood Movement

Ninth Plan Strategy

Men play an important role in determining education and employment status, age at marriage, family formation pattern, access to and utilisation of health and family welfare services for women and children. Their active co-operation is essential for the success of STD/RTI prevention and control. In condom users, consistent and correct use are essential pre-requisites for STD as well as pregnancy prevention. Vasectomy which is safer and simpler than tubectomy should be repopularised.

Progress and Suggestions

32. Department of Family Welfare has taken steps to popularise vasectomy including training of surgeon in noscalpel vasectomy technique. Some states like Andhra Pradesh have reported substantial increase in vasectomy in some districts. It is expected that its acceptance will

increase if appropriate IEC strategies are adopted and efforts are made to improve access and address convenience of men. Steps are being taken to increase involvement of men in family welfare activities. These initiatives need to be effectively implemented.

Logistics Support

33. The Central Government procures and supplies drugs, equipment kits, contraceptives and vaccines to States for use in Family Welfare programme. While the drug kits are supplied at district level, vaccines and contraceptives are supplied at State or regional level. The States have so far not created any specialised or dedicated system for receiving such supplies, storing them in acceptable conditions and for their distribution. As a result there are delays, deterioration in quality and wastage of drugs. Supplies under FW Programme is about Rs.500 crores per annum. It is estimated that the losses due to deterioration and inefficiencies may be to the extent of 20-30%.

Ninth Plan Strategy is to ensure uninterrupted supply of essential drugs, devices, vaccines and contraceptives, adequate in quantity and appropriate in quality.

Progress in Ninth Plan

34. The Department of Family Welfare (DOFW) in collaboration with different donor agencies working in different states has formulated logistic project for each major State through consultants engaged for the purpose. To ensure efficiency, the State Government agency will be paid only on the basis of a percentage of supplies it handles. Logistics project in some states have already been approved. The project requires close monitoring. The facilities being created should handle all drugs/vaccine/ devices etc. provided by central govt. (Health, Family Welfare, ISM&H) and state governments for all health care institutions. The progress in the efforts and problem encountered has to be monitored and appropriate mid course corrections are to be initiated.

Strategies For Improving Performance

35. A vast infrastructure for delivery of health and family welfare services has been created over the last three decades utilising uniform norms for the entire country. Factors responsible for the sub-optimal performance include:

a. absence of proper medical hierarchy with well defined functions;
b. lack of first line supervision and mechanism to bring about accountability;
c. absence of referral system and lack of functional FRUs.

36. During the Ninth Plan, it is envisaged that efforts will be made to improve efficiency by undertaking task analysis, assigning appropriate duties/ tasks to designated functionaries and training them to act as a multi-professional team; the community, the link worker and the health functionaries will be performing the tasks that they are best suited to do and the implementation of the programme will improve because of effective coordinated functioning of the entire system.

37. DOFW has invested heavily in training of Programme Managers and health service personnel in decentralised district-based planning, implementation, monitoring and mid-course corrections in RCH Programme; managerial aspects are also covered during the training. It is expected that these will promote effective functioning and improve efficiency.

Monitoring And Evaluation

38. Currently, the following systems are being used for monitoring programmes in the Family Welfare Programme:

a) Services reporting system;
b) Sample Registration System (SRS) and Census Data;
c) Research Studies especially designed to look into specific problems

39. DOFW has constituted regional evaluation teams which carry out regular verifications and validate the acceptance of various contraceptives. These evaluation teams will be used to obtain vital data on failure rates, continuation rates and complications associated with different family planning methods.

40. At present information about the progress on programme intervention as well as its impact is not available from the independent surveys at district level. DOFW had initiated a rapid household survey to obtain this information. All the districts were covered in a two-year period. The reports are being used to identify district-specific problems and rectify the programme implementation.

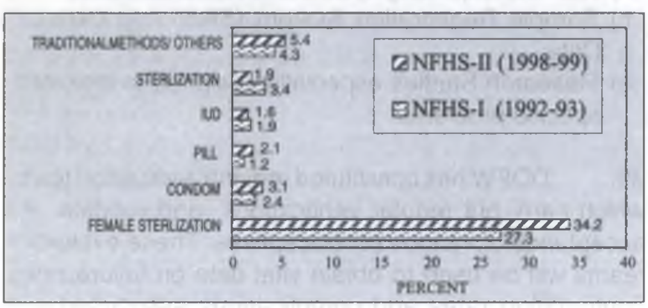
41. To assess the availability and the utilisation of facilities in various health institutions all over the country, facility surveys have been done during 1998-99. So far data collection was completed in 101 districts. The survey results are being scrutinised and deficiencies found therein are being brought to the notice of the States and districts concerned for taking appropriate action. Planning Commission and DOFW have developed proforma for

monitoring the infrastructure, manpower and equipment mismatch in the primary health care institutions. The format for monitoring the progress and quality incicators has been developed and sent to all the states.

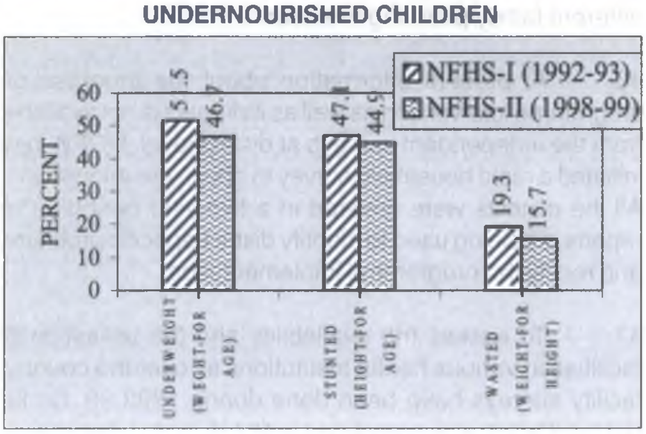
42. DOFW, in collaboration with Registrar General of India (RGI), has set a target of 100% registration of births and deaths by the end of the Ninth Plan. Steps have also been initiated to collect, collate and report these data at PHC/District level on a yearly basis. Available information with RGIs office indicates that as of mid-nineties over 90% of all births and deaths are registered in states like Kerala, Tamil Nadu, Delhi, Punjab and Gujarat. In these States these data should be used at district-level both for PHC-based planning of RCH care as well as evaluation of the RCH care annually. In districts where vital registration is over 70%, efforts are being stepped up to ensure that over 90% of births and deaths are reported so that an independent data base is available for planning as well as impact evaluation of PHC- based RCH care.

43. DOFW had conducted a National Family Health Survey in 1992-93 and again in 1998-99 ; the report of the second round is under finalisation.

CONTRACEPTIVE USE BY METHOD AMONG MARRIED WOMEN AGES 15-49: NFHS-I AND NFHS-II

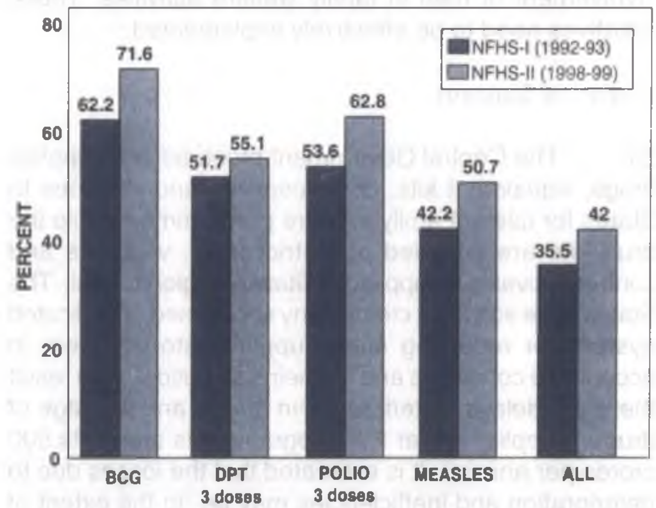


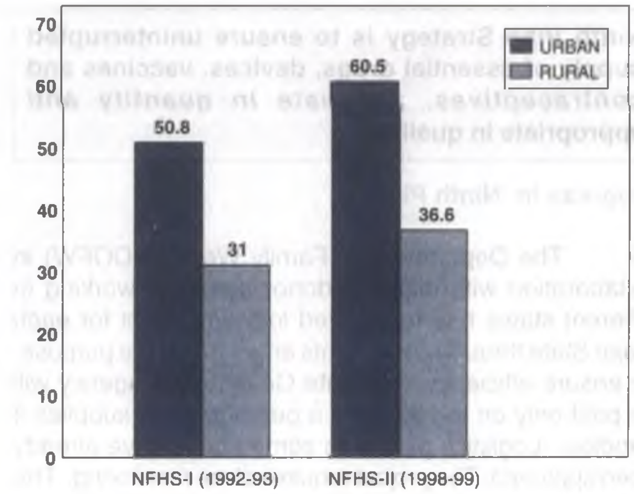
UNDERNOURISHED CHILDREN



44. Preliminary data from the NFHS –2 indicate that between 1992-93 and 1998-99, there was improvement in the couple protection rate, reduction in the unmet needs

IMMUNISATION OF CHILDREN 12-23 MONTHS : NFHS-I (1992-93) AND NFHS-II (1998-99)





for contraception, improvement in the immunization coverage and reduction in under-nutrition. These findings of the independent survey on the performance of the FW programme are reassuring. There is apparent difference in the data reported through the service reporting and the NFHS regarding performance of the FW programme in the nineties; perhaps part of the decline in performance seen in the service data could be because the newly introduced reporting formats are not fully put into operation. It is imperative that steps are initiated for improving the service reporting and the information is utilized for monitoring and mid-course correction of the programme at district level.

Participation of NGOs in RCH Programme

45. Under the RCH programme the NGOs are being assisted at three levels:

(a) Small NGOs: At the village, Panchayat and Block level small NGOs are being involved for advocacy of RCH and family welfare practices and for counselling. As these small NGOs have limited resources, they are being assisted through the mother NGOs. In addition, some NGOs are to be assisted for providing spacing or terminal methods of contraception and for counselling.

(b) Mother NGO: DOFW proposes to recognise one mother NGO for every 8 to 10 districts. NGOs with substantial resources and proven competence are being approved as mother NGOs. So far 49 mother NGOs have been identified. The mother NGOs are required to screen credentials of the applicant small NGOs, obtain proposals from them, consider them for sanction, release money and monitor their work and obtain utilisation certificate from them. The mother NGOs are also required to provide training to the staff of the small NGO for both management of the NGO and for management of the programme.

(c) National NGOs: A limited number of National NGOs are being assisted by the Department on project basis for innovative programmes for introducing Baby Friendly Practices in hospitals, for helping in enforcement of Prenatal Diagnostics Technique Act by detecting offending sex determination clinics and collecting evidence to make specific complaints against them to the designated authorities in the State.

46. The concept of small NGOs being supervised by Mother NGOs may dilute their autonomy; however in a technical field such as RCH many NGOs may benefit from the help provided by the experienced larger NGO. The progress in these efforts is being monitored.

Role Of Panchayati Raj Institutions In F.W Programme

47 The Ninth Plan envisaged involvement of Panchayati Raj Institutions for:

- Ensuring inter-sectoral coordination and community participation in planning, monitoring and management of the RCH programme.
- Assisting the states in supervising the functioning of health care related infrastructure and manpower such as Sub-Centres (SCs), Primary Health Centres (PHCs) and Aganwadis.
- Ensuring coordination of activities of workers of different departments such as Health, Family Welfare, ICDS, Social Welfare and Education etc. functioning at village, block and district levels.
- Improving the acceptance of the FW programme through increased community participation.

There are massive differences between states in the implementation; i.e. States like Kerala have embarked on decentralized planning and monitoring programmes utilizing PRIs and have ensured devolution of powers and finances to PRIs. In other states the involvement is mainly in planning and monitoring without devolution of power and finances. In some states the PRIs have not yet participated in the programme. There is a need to constantly review the situation and initiate appropriate interventions.

Inter-Sectoral Coordination in Implementation of the FW Programme

48. Effective implementation of Family Welfare Programme involves a great deal of inter-sectoral coordination.

49. The Departments whose activities have close linkages with Family Welfare Programmes are the Department of Women and Child Development, Human Resource Development, Rural Development, Urban Development, Labour, Railways, Industry and Agriculture. All these Departments may involve their extension workers in propagating IEC messages about reproductive and child health care to the population with whom they work. Concerned Central and State departments like Department of Women & Child Development, Human Resources Development, Rural Development etc. may take steps to improve the status of girl child and of women, improving female literacy and employment, raising the age at marriage, generating more income in rural areas etc. Sectors such as Railways and Industry should provide Family Weflare Services to the workers and their families.

Research And Development

50. Under RCH Programme the Department of Family Welfare has constituted two expert committees namely Expert Committee for Research in Reproductive Health and Contraception under Modern System of Medicine and Expert Committee for Research in Reproductive Health and Contraception under ISM & H to examine proposals.

51. Indian Council of Medical Research (ICMR) is currently undertaking research in the following areas:

a) basic research efforts for the development of newer technology for contraceptive drugs and devices in modern system of medicines and ISM&H to cater to the requirements of the population in the decades to follow.

b) improving the contraceptive coverage for men and women by operational research

c) operational research for improving the performance of Family Welfare Programme and socio-behavioural research to improve community participation for increased acceptance of family welfare services.

d) creation and support of an appropriate institutional mechanism to test and ensure the quality control in products utilised in the programme.

e) STI/RTI operational research for detection, prevention and management in different situations

National Population Policy

52. One of the major recommendations of the National Development Council (NDC) Sub Committee on Population was that a National Population Policy (NPP) should be drawn up to provide reliable and relevant policy framework not only for improving Family Welfare Services but also for measuring and monitoring the delivery of family welfare services and demographic impact in the new millennium. DOFW has drawn up the National Population Policy 2000. The Cabinet has approved the NPP 2000

53. The National Population Policy 2000 has set the following goals for 2010:

i) Universal access to quality contraceptive services in order to lower the Total Fertility Rate to 2.1 and attaining two-child norm.

ii) Full coverage of registration of births, deaths and marriage and pregnancy.

iii) Universal access to information/ counseling services for fertility regulation and contraception with a wide basket of choices.

iv) Infant Mortality Rate to reduce below 30 per thousand live births and sharp reduction in the incidence of low birth weight (below 2.5 kg.) babies.

v) Universal immunization of children against vaccine preventable diseases, elimination of Polio by 2000 and near elimination of Tetanus and Measles.

vi) Promote delayed marriage for girls, not earlier than age 18 and preferably after 20 years of age.

vii) Achieve 80% institutional deliveries and increase in the percentage of deliveries conducted by trained persons to 100%.

viii) Containing Sexually Transmitted Diseases.

ix) Reduction in Maternal Mortality Rate to less than 100 per one-lakh live births.

x) Universalisation of primary education and reduction in the drop-out rates at primary and secondary levels to below 20% both for boys and girls.

54. National Commission on Population has been constituted under the Chairmanship of the Prime Minister of India and Deputy Chairman Planning Commission as Vice Chairman on 11th May 2000 to review, monitor and give direction for implementation of the National Population Policy with a view to achieve the goals set in the Population Policy. The first meeting of National Commission on Population was held on 22nd July 2000. Wide ranging discussions in the first meeting of National Commission on Population has given useful suggestions for pursuing the goal of population stabilization. A Strategic Support Group consisting of secretaries of concerned sectoral ministries has been constituted as standing advisory group to the Commission. Nine Working Groups are being constituted to look into specific aspects of implementation of the programmes aimed at achieving the targets set in NPP 2000.

55. To facilitate the attainment of the goals set under NPP 2000 by the National Commission on Population an Empowered Action Group attached to the Ministry of Health & Family Welfare and a National Population Stabilisation Fund are being set up. A seed contribution of Rs.100 Crores has been provided to National Population Stabilisation Fund; corporate, industry, trade organizations and individuals may also contribute to the fund.

Funding Of The National Family Welfare Programme

56. The National Family Welfare Programme is a hundred percent centrally sponsored programme and is being implemented through the state governments. The Department of Family Welfare provides funds to the state governments for maintenance of health and family welfare infrastructure and implementation of the programme according to certain fixed norms. The Department reimburses to the states the expenditure after receiving audited statement of Accounts. The plan funds of the Department of Family Welfare are being utilized for meeting the expenditure on salaries, recurrent provision for rent, contingencies etc. which is essentially non-plan in nature.

Ninth Plan recommended:

1. Rationalisation, restructuring and reorganization of infrastructure and manpower funded by the DOFW
2. Revision of norms for funding so that the arrears payable to the states do not mount

57. A Consultative Committee constituted by the Department of Family Welfare to revise the norms has been looking into rationalization of infrastructure and manpower created under different programmes at

different times so that the Centre and the States both fund the relevant portion of the programme. The programme components which can be handed over to the State Governments but continue to be funded by the Department of Family Welfare at the Centre are being identified. The shifting of the maintenance of infrastructure from the Department of Family Welfare to the States and vice versa is being carefully worked out so that there is no additional financial burden on the States or the Centre during the Ninth Five Year Plan. The proposal and recommendations of the Consultative Committee are being discussed with the State Governments for evolving a consensus. The recommendations made in the Ninth Plan Document, recommendations of the Consultative Committee and the views of Planning Commission on the reorganization of infrastructure and manpower being maintained by the Department of Family Welfare are at Annexure-I.

58. The outlays for the Ninth Plan and Annual Plans are given in Annexure-II.

Annexure I

REORGANISATION OF THE INFRASTRUCTURE AND MANPOWER BEING CURRENTLY MAINTAINED BY DEPARTMENT OF FAMILY WELFARE

Scheme	Outlay (Rs.Crores) 1998-99	Outlay (Rs.Crores) 1999-2000	Recommendation for the Ninth Plan	Recommendations of the Consultative Committee	Comments of Planning Commission to the Recommendations of Consultative Committee
Rural F W Centres (Established at all block level PHCs before 1980. There are 5435 such functioning centers)	265.00	350.00	To be made part of the state primary health care infrastructure	The States to take over the maintenance of Rural FW Centres	Planning Commission supports this Recommendations of Consultative Committee
Sub-Centres (Funded by the Deptt. of FW 97757 Funded by States 38782)	340.00	525.00	All ANMs to to fully funded under FW programme	Deptt. of FW to provide for the maintenance of all the SCs.	
Maintenance of Urban FW Centres & Revamping of urban level organization There are 871 health posts functioning in ten states and two UTs There are 1083 Urban FW Centres	64.00	58.00	States to set up well structured urban primary health care infrastucture; Funding from Deptt. of Family Welfare ANMs only; ANMs will come mainly by redeployment & gap, if any will be filled.	To set up: Urban Health Centres per 10000 slum population Urban Primary Health Centres per 50000 slum population	
Post Partum Centres There are 550 district level PP centres and 1012 sub-district level PP centres which provide MCH and family planning services.	100.00	120.00	All district level PP Centres to be taken over by the states and mearged with Deptts. of Obst./Gyna. Of the respective hospitals during Ninth Plan Sub-district level PP Centres to be merged with PHCs/CHCs	PP Centres to be continued to be supported by the Deptt. of FW	
Direction & Administration Under the existing norms the central assistance is restricted to 7.5%/ 8.33% of the total allocation to the state/UT under the National Family Welfare Programme in the year 1985-86.	92.00	185.50		The states with more than/ less than one crore population will be entitled to 8%/ 12% of the audited expenditure on the Family Welfare Programmes or the actual expenditure whichever is less.	The Commission supports this recommendation.
Sterilisation beds	1.70	1.70		To evaluate the Scheme for better functioning	
Basic training schools There are 509 ANM Training Schools, 44 LHV Training Schools and 47 Health & Family Welfare Training Centres that provide training to ANMs, LHVs and in-service training to medical and Para-medical personnel at the regional level.	39.95	61.90		To be maintained by the Deptt. of FW as at present	Shift to States as training is their function
Arrears	250.00	200.00			Deptt. of FW to revise norms for the salaries and reimburse to the States actual salary costs based on audited statements of accounts
Total (Infrastructure)	**1152.65**	**1502.10**			
Total	**2489.35**	**2920.00**			

Annexure-II

DEPARTMENT OF FAMILY WELFARE

(Rs. in Crore)

1	Scheme 2	Eighth Plan Outlay 3	1996-97 Approved outlay 4	Ninth Plan Approved outlay 5	1997-98 Approved outlay 6	1998-99 Approved outlay 7	1999-2000 Approved outlay 8	2000-2001 Approved outlay 9
1	Rural Family Welfare Centres	1040.00	160.00	1500.00	200.00	265.00	350.00	375.00
2	Sub-Centres	1233.30	190.00	2200.00	260.00	340.00	525.00	575.00
3	Maintenance of urban FW Centres	100.00	15.00	120.00	20.00	30.00	27.00	28.00
4	Revamping of urban level organisation	86.70	18.00	130.00	30.00	34.00	31.00	32.00
5	Direction & Administration	304.40	48.60	700.00	57.00	92.00	185.50	116.00
6	Sterilisation beds	8.70	2.00	8.60	2.00	1.70	1.70	1.50
7	Post Partum Centres	328.70	49.00	530.00	70.00	100.00	120.00	120.00
8	Basic Training Schools	179.40	27.45	240.00	30.35	39.95	61.90	63.75
9	Training in No-scalpel vasectomy	–	0.55	0.50	0.50	0.00	0.00	0.00
10	Village Health Guides Scheme	140.00	10.00	50.00	10.00	10.00	10.00	5.00
11	Sterilsation and IUD insertion	666.70	100.00	600.00	90.00	100.00	140.00	120.00
12	Community incentive scheme	–	0.00	265.00		25.00	0.00	0.00
13	Transport	105.30	26.00	150.00	32.00	27.50	43.00	40.00
14	Contraceptives	456.70	143.00	930.00	163.85	172.00	247.50	224.70
15	Procurement of cold chain Equipment	–	0.00	150.00		0.00	50.00	5.00
16	Hindustan Latex Ltd.	3.30	1.25	1.90	1.50	0.10	0.10	0.00
17	Travel of Experts/Conferences /Meetings etc.	–	0.00	16.10	10.10	1.50	1.50	1.00
18	Reseach Institutes	75.40	15.46	124.00	18.90	26.80	25.50	28.45
19	International Contribution	5.34	1.05	6.30	1.10	1.30	1.30	1.30
20	Research & Evaluation	5.56	3.04	4.70	4.70	0.00	20.00	
21	Incolvement of NGOs and SCOVA	13.30	8.50	14.50	8.50	6.00	26.00	
22	Information, Education and Communication	127.00	43.00	170.00	60.60	28.00	31.20	30.00
23	Reproductive & Child Health/MCH	635.00	350.10	5000.00	450.00	758.00	630.80	743.00
24	Area Project	400.00	195.00	800.00	150.00	120.00	100.00	250.00
25	USAID Assisted U.P.Project	–	40.00	250.00	40.00	60.00	70.00	60.00
26	WACH Project	–	0.50	0.50	0.50	0.00	0.00	0.00
27	Arrears	500.00	20.00	950.00	79.00	250.00	200.00	700.00
28	Others/New Initiatives	48.70	50.85	208.40	38.75	0.50	21.00	
	(a) Logistics Improvement			80.00	1.35	0.50	20.00	
	(b) F.W. Counsellor Scheme			1.00	0.00		1.00	0.00
	(c) School Health Scheme			127.00	37.00			
	(d) Others			0.40	0.40			
29	Flexible Approach Scheme	3.30	15.00					
30	Hepatitis-B Vaccination	–	0.00					
31	FW Programme through central Ministries	33.20	1.65					
32	Maternity Benefit Scheme							1.00
	GRAND TOTAL	**6500.00**	**1535.00**	**15120.50**	**1829.35**	**2489.35**	**2920.00**	**3520.00**

CHAPTER 18

NUTRITION

Currently the major nutrition-related public health problems are:

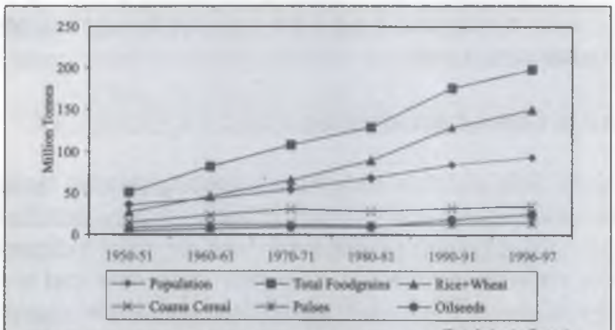
a) Chronic energy deficiency and under-nutrition
b) Micro-nutrient deficiencies
   - anaemia due to iron and folic acid deficiency
   - Vitamin A deficiency
   - Iodine Deficiency Disorders
c) Chronic energy excess and obesity

Nutritional Implications of Changing Food Production Patterns

2. One of the major achievements in the last fifty years has been the green revolution and self-sufficiency in food production. Food grain production has increased from 50.82 million tons in 1950-51 to 200.88 million tons in 1998-99 (Prov.). It is a matter of concern that while the cereal production has been growing steadily at a rate higher than the population growth rates, the coarse grain and pulse production has not shown a similar increase (Fig.1).

Fig. - 1

Trends in Production of Important Food Items



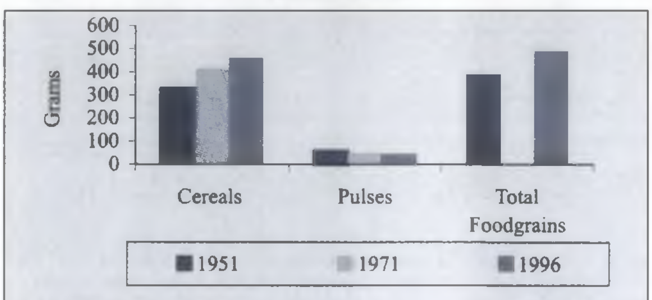
Source :- Agricultural Statistics at a Glance, M/o Agriculture

(Population in Crores)

Consequently there has been a reduction in the per capita availability of pulses from 60.7 grams in 1951 to 34 grams per day in 1996 (Fig 2).

Figure- 2

PER CAPITA NET AVAILABILITY OF FOODGRAINS



Source: NNMB

3. During the last few years the country has imported pulses to meet the gap in pulse requirement. There has been a sharp and sustained increase in cost of pulses, so there is substantial decline in per capita pulses consumption among poorer segment of population. This in turn could have an adverse impact on the protein intake. However there is some beneficial effect also. With the reduction in consumption of kesari dal there has been considerable reduction in the incidence of neurolathyrism in Madhya Pradesh. The pulse component of the "Pulses and Oil Seeds Mission" needs to receive a major thrust in terms of R&D (Research & Development) and other inputs, so that essential pulse requirement of growing population is fully met.

4. Over years the coarse grain production has remained stagnant and per capita availability of coarse grain has undergone substantial reduction. There has been a shift away from coarse grains to rice and wheat consumption even among poorer segment of population. Coarse grains are less expensive than rice and wheat; they can thus provide higher calories for the same cost as compared to rice and wheat; they are richer in minerals, some micronutrients and fibre. Coarse grains which are locally produced and procured could be made available through TPDS (Targeted Public Distribution System) at subsidised rate; this may not only substantially bring down the subsidy cost without any reduction in calories provided but also improve " targeting" as only the most needy people are likely to access these coarse grains.

Horticultural Production

5. India ranks first & second in production of vegetables and fruits in the world. However, per capita consumption of these is very low. In addition to vital micronutrients, vegetables provide phytochemical and fibre; and consumption of adequate quantities of vegetables is essential for health. At present there is lack of sufficient focus and thrust in horticulture especially cultivation and marketing of the low cost locally acceptable green leafy vegetables and yellow vegetables and fruits; because of this, availability of vegetables especially green leafy vegetables and yellow/red vegetables throughout the year at affordable cost has remained an unfulfilled dream both in urban and rural areas. Health and nutrition education emphasizing the importance of consuming these inexpensive rich sources of micronutrients will not result in any change in food habits unless there is harnessing and effective management of horticultural resources in the country to meet the growing needs of the people at

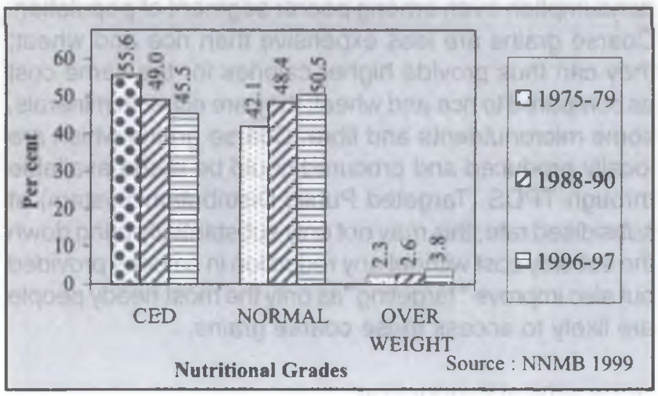
affordable cost. States like Tamil Nadu and Himachal Pradesh have initiated some efforts in increasing vegetable production and improving marketing; similar efforts need to be taken up in other States also. Processing of fruits and vegetables at or near the areas where they are grown would minimize the inevitable losses during transport and reduce transport costs. Processing units in rural areas would also provide employment opportunities and economic benefits due to value addition.

Changes in Dietary Intake and Nutritional Status

6. Over the last three decades there have been substantial changes in socio-economic status as well as life style of the population. The data from NNMB surveys indicate that that there has been an increase in energy intake in adults - both men and women - over the last three decades. The National Nutritional Monitoring Bureau (NNMB) data also indicate that there has been some decline in CED(chronic energy deficiency) over years and simultaneously an increase in obesity (Fig-3).

Fig - 3

Distribution (%) of Adult Males by BMI Status in Different Periods



Adolescent Nutrition

7. Adolescents who are undergoing rapid growth and development are one of the nutritionally vulnerable groups who have not received the attention they deserve. In under-nourished children rapid growth during adolescence may increase the severity of under-nutrition. Early marriage and pregnancy will perpetuate both maternal and child under-nutrition. At the other end of spectrum among the affluent segment of population, adolescent obesity is increasingly becoming a problem. Available data from NNMB on nutritional status of adolescents indicate that under-nutrition continues to be a major problem in adolescents. In addition, over years there has been some increase in obesity . In view of these problems, nutrition education, health education and appropriate nutritional interventions for adolescent are being taken up under ICDS (Integrated Child Development Scheme) and RCH (Reproductive & Child Health) Programmes. In order to reduce anaemia, supplementation of iron and folic acid to adolescent is also being taken up on a pilot basis under both these programme. Department of Women and Child Development has launched an adolescent girls scheme to take care of specific needs of adolescent girls in 507 blocks. The Department proposes to cover 1493 additional blocks during remaining period of the Ninth Plan.

Prevention & Management Of Chronic Energy Deficiency

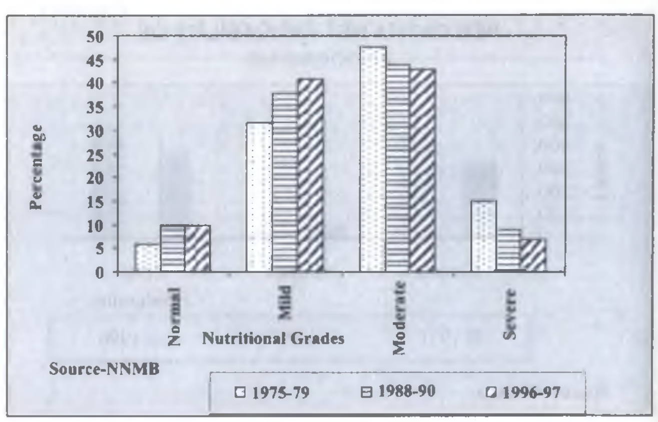
8. It is a matter of concern that prevalence of low birth weight and under- nutrition in pregnant women and children between 6 and 24 months has not declined. Though there has been a 50% reduction in severe under-nutrition in under five children, the decline in moderate and mild under-nutrition is marginal. While mortality has come down by 50% and fertility by 40%, reduction in under-nutrition is only 20%. India with less than 20% global children accounts for over 40% under- nourished children. Pregnant and lactating women have been an identified priority group for receiving food supplement through ICDS. However, experience over the years indicate that very few needy, at-risk pregnant women regularly access and benefit from ICDS food supplements. Effective antenatal care is also not readily available. Awareness generation programmes have been undertaken to sensitize the community, the health care and ICDS systems to recognise the 'at risk' cases and respond by appropriate remedial measures.

CED in Pre-school children

9. Pre-school children constitute the most nutritionally vulnerable segment of the population and their nutritional status is considered to be a sensitive indicator of community health and nutrition. Over the last two decades there has been some improvement in energy intake and substantial reduction in moderate and severe under- nutrition in pre- school children (Fig. 4).

Figure-4

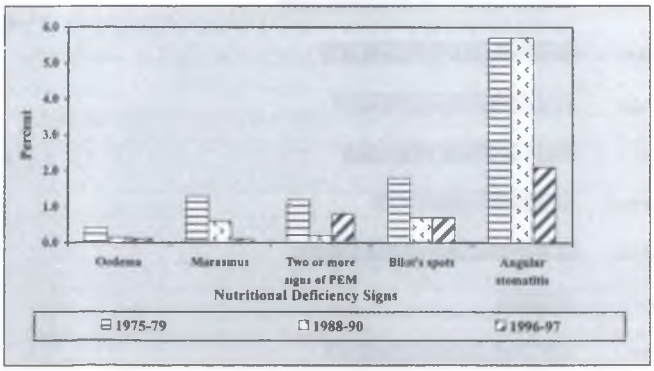
Distribution of Children (1-5) years according to Gomez Classification



10. Though there has not been any change in the intake of green leafy vegetables and other vegetables, there has been substantial decline in prevalence of nutritional deficiency signs (Fig 5).

Figure-5

Percent Prevalence of Nutritional Deficiency Signs among Pre-school Children - Pooled



Inter-State Differences in Dietary intake, Undernutrition & Under-five Mortality

11. State-wise data on energy intake, prevalence of severe CED and infant mortality are given in Figures 6 & 7.

12. Low dietary intake is the most important cause of under-nutrition. Other major factors responsible for under-nutrition in children are low birth weight, poor infant feeding practices, infections due to poor sanitation, lack of safe drinking water and poor access to health care. In spite of low dietary intake prevalence of severe under-nutrition is lower in Kerala because of more equitable distribution of food between income groups and within families and better access to and utilization of health care. In spite of higher average dietary intake, under-nutrition rates are higher in UP, MP and Orissa because of lack of equitable distribution of food and access to health care. Identification and appropriate nutrition and health intervention among 'at risk' groups and in under-nourished children are essential for optimal results. This is currently being attempted in ICDS programme in Orissa.

13. Under-nutrition increases susceptibility to infections. Infection aggravates under-nutrition. If uninterrupted this vicious circle could result in death. In most of the states with high under-nutrition the infant mortality is high. In Kerala both severe under-nutrition and IMR (infant mortality rate) are low. In spite of high per capita income, dietary intake and access to health care, both under-nutrition and IMR are relatively high in Punjab. It is therefore imperative that health and nutrition programmes are co-ordinated to achieve optimal synergy between the two interventions so that there is improvement in nutritional and health status.

14. Another factor responsible for under-nutrition in childhood is poor intra- familial distribution of food. Studies

% SEVERELY UNDERNOURISHED (NFHS) CHILDREN (<4Yrs.) 1992-93

Figure-6

INFANT MORTALITY RATE 1993 - SRS

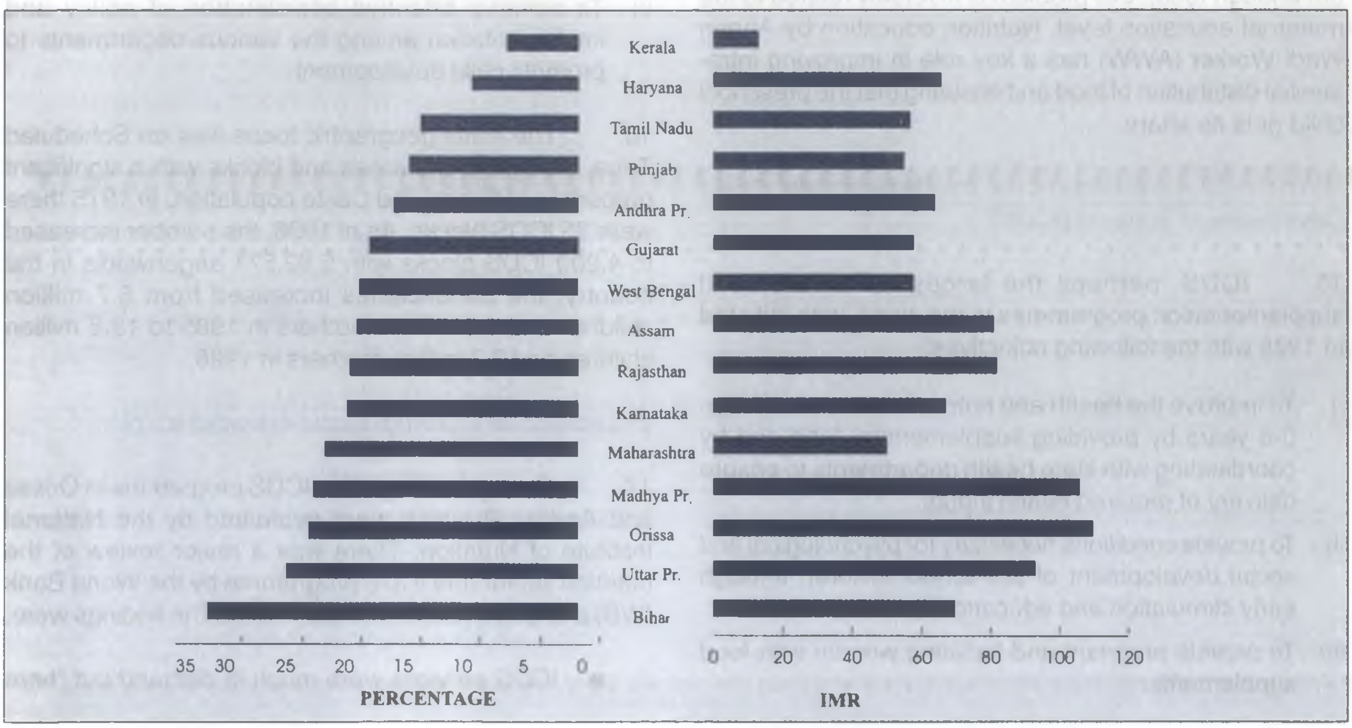
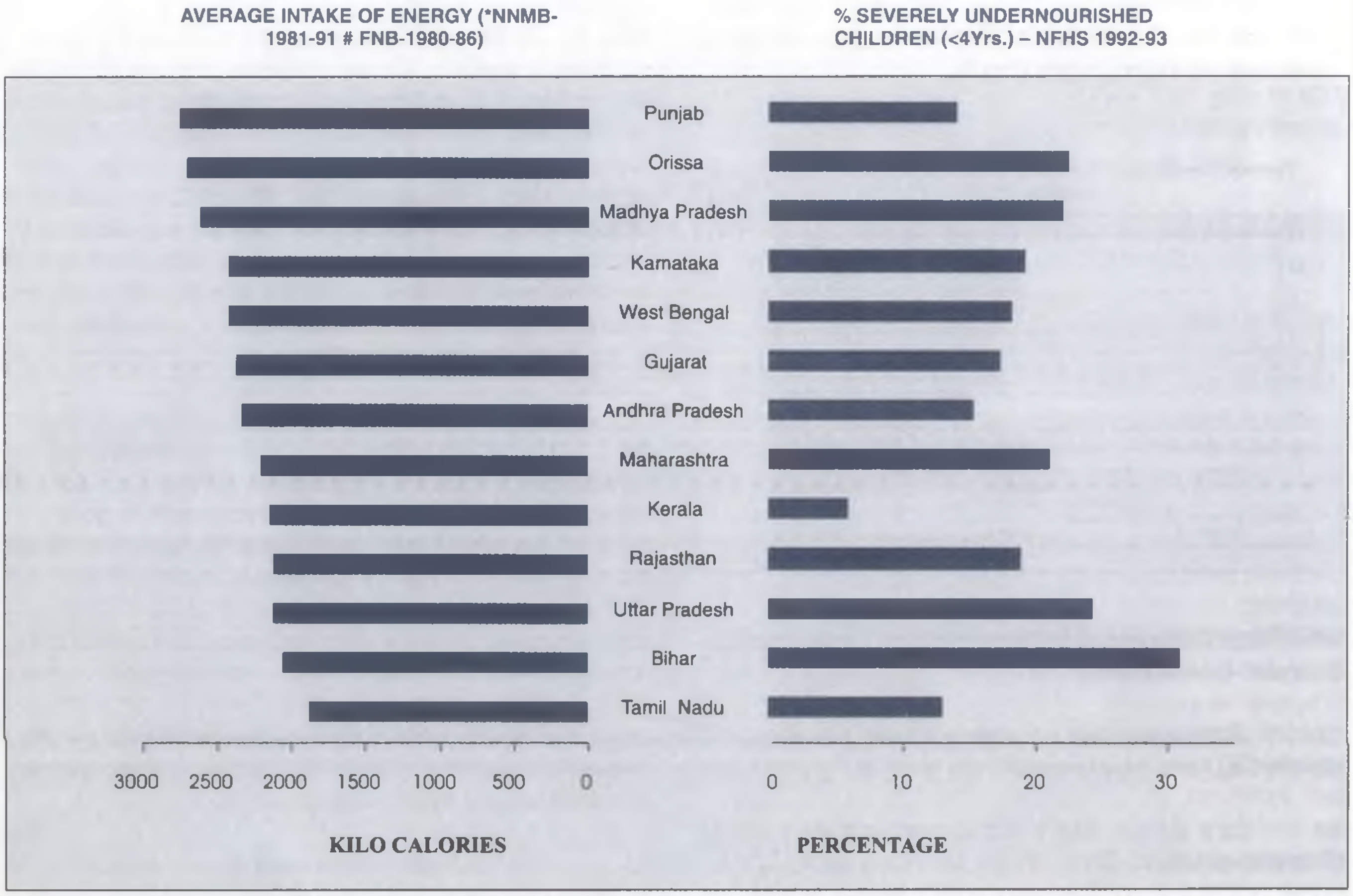


Figure-7



18

by NNMB show that in over 20% of the families where adults get sufficient food the pre-school children do not get enough food;. this problem is inversely related to the maternal education level. Nutrition education by Angan Wadi Worker (AWW) has a key role in improving intra-familial distribution of food and ensuring that the preschool child gets its share.

Nutritional Component of the Integrated Child Development Scheme (ICDS)

15. ICDS, perhaps the largest of all the food supplementation programmes in the world, was initiated in 1975 with the following objectives:-

i) To improve the health and nutrition status of children 0-6 years by providing supplementary food and by coordinating with state health departments to ensure delivery of required health inputs;

ii) To provide conditions necessary for psychological and social development of pre-school children through early stimulation and education;

iii) To provide pregnant and lactating women with food supplements;

iv) To enhance the mother's ability to provide proper child care through health and nutrition education;

v) To achieve effective coordination of policy and implementation among the various departments to promote child development.

16. The initial geographic focus was on Scheduled Tribe, drought-prone areas and blocks with a significant proportion of Scheduled Caste population. In 1975 there were 33 ICDS blocks. As of 1996, the number increased to 4,200 ICDS blocks with 5,92,571 anganwadis in the country; the beneficiaries increased from 5.7 million children and 1.2 million mothers in 1985 to 18.5 million children and 3.7 million mothers in 1996.

Evaluation of Nutrition Component of ICDS :

17. During the Ninth Plan ICDS programme in Orissa and Andhra Pradesh were evaluated by the National Institute of Nutrition. There was a major review of the nutrition sector and ICDS programme by the World Bank (WB) and Government of India in 1997.The findings were:

- ICDS services were much in demand but there

Table-I

Nutrition Spending in Selected States, 1992-95

State	Population Below Poverty line (%)	Severe and Moderately Malnourished Children %	Net Annual State Domestic Product Per Capita (Rs.)	Nutrition Spending As a % of State State Domestic Product		
Year	**93-94**	**92-93**	**94-95**	**92-93**	**93-94**	**94-95**
Andhra Pr.	0.23	0.49	57.18	0.11	0.10	0.10
Assam	0.41	0.50	49.73	0.11	0.12	0.17
Gujarat	0.24	0.50	81.64	0.31	0.31	0.29
Haryana	0.25	0.38	90.37	0.17	0.17	0.16
Karnataka	0.33	0.54	63.15	0.08	0.08	0.10
Kerala	0.25	0.29	57.68	0.10	0.09	0.12
Madhya Pr.	0.43	0.57	45.44	0.20	0.16	0.18
Maharashtra	0.37	0.54	98.06	0.08	0.08	0.08
Orissa	0.49	0.53	41.14	0.32	0.33	0.36
Rajasthan	0.27	0.42	52.57	0.09	0.12	0.13
Tamil Nadu	0.35	0.48	66.70	0.62	0.53	0.58
West Bengal	0.36	0.57	55.41	0.07	0.08	0.08

Note : Nutrition spending figures include GOI and state government expenditures on ICDS, NMMP and other nutrition programs
Source: World Bank – India Wasting Away.

are problems in delivery, quality and coordination. The programme might perhaps be improving food security at household level, but failed to effectively address the issue of prevention, detection and management of undernourished child/mother.

- Children in 6-24 months age group and pregnant and lactating women did not come to the Anganwadi nor did they get food supplements.
- Available food was shared between mostly 3-5 year old children irrespective of their nutritional status.
- There was no focussed attention on management of severely undernourished children
- No attempt was made to provide ready mixes that could be given to 6-24 month child 3-4 times a day; nor was nutrition education focussed on meeting these childrens' need from the family pot.
- Childcare education of the mother was poor or non-existent.
- There were gaps in workers training, supervision, and community support.
- Inte-sectoral coordination was poor.

18. Efforts are under way to rectify some of these problems. Closer collaboration between the ICDS and the Health functionaries at all levels is being attempted. The Department of Women and Child Development proposes to operationalise 318 new projects under ICDS-III in the states of Uttar Pradesh, Maharashtra, Kerala and Rajasthan and 143 projects under ICDS-APER (Andhra Pradesh Economic Rehabilitation) in Andhra Pradesh.

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Funding of ICDS programme

19. Table-I sets out findings of a Government of India(GOI) –World Bank (WB) review of funding of nutrition programmes by the State Governments, including the nutrition component of ICDS programme and other supplementary feeding programme eg. Tamil Nadu - Mid day Meal Programme. It is obvious that expenditure on investing higher amounts in food supplementation programme. Expenditure on supplementary nutrition is not the only critical determinant of under-nutrition level. Kerala spends very little on nutrition programmes, yet it has the lowest under-nutrition rates, perhaps due to more equitable distribution of food and effective health care.

20. Outlays and expenditure for food supplementation through ICDS during the Ninth Plan are given in Annexure – I. Planning Commission reviewed the State Government funding of nutrition component of ongoing ICDS programme in 1999. The current norms envisage that funds for feeding 72 beneficiaries are to be provided to every anganwadi (against the average of about 200 eligible children and women in the community). The programme guidelines are uniform for all blocks. At the national level only 30 million out of the country's 162 million children are covered. The children so covered may not belong to the most needy group. There are no guidelines for targeting the available food to the most needy.

21. Planning Commission computed the state-wise requirement of funds as per the existing ICDS guidelines and supplements being limited to women and (0-4) children from BPL (below poverty line) families taking into account state-specific birth rates (1997) and BPL rates (1994). The gap in funding under these two scenario were calculated and the data are presented in Annexure- II. It is obvious that under both these scenario there are huge gaps between required funds and amount actually provided. The State Governments have been asked to initiate steps to fill this critical gap to the extent possible. In addition to funds under BMS (Basic Minimum Services) in the State Plans, the funds under PMGY (Pradhan Mantri's Gramodaya Yojana) may have to be effectively utilized to reduce the gaps.

Addressing Needs of Very Young Children

22. Under the Pradhan Mantri's Gramodaya Yojana, an Additional Central Assistance of Rs 375 crore has been provided to States for funding take-home food supplements based on locally acceptable cereal, pulse and oilseed mix for the nutritionally most vulnerable under three year children. The States have been requested to contribute as much as possible for nutrition sector from PMGY funds so that the large gaps in availability of food supplements under the ICDS programme can be bridged.

Monitoring of ICDS:

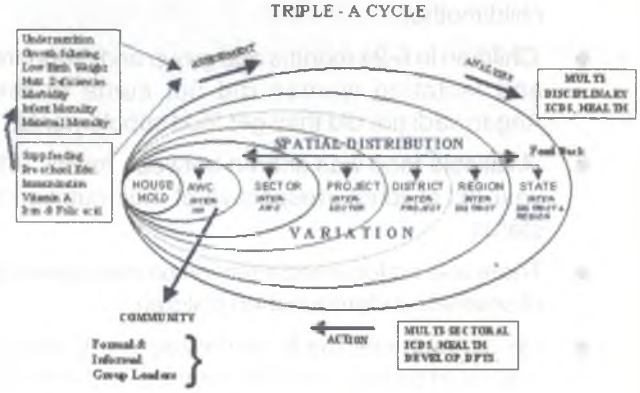
23. The ICDS-monitoring format currently being utilised by the Department of Women and Child Development (DWCD) contains mainly process indicators. Information on nutritional status though collected at Anganwadi and reported to Child Development Project Officer (CDPO) is not being compiled, analysed and sent to DWCD. As a part of the PMGY initiative, Planning Commission has designed a simple format for compiling and reporting district-wise disaggregated data on nutritional status of under- three and under -five children. Collection, compilation and use of this data may improve monitoring the impact of ongoing programmes in prevention and management of under-nutrition and enable district-specific intervention.

24. In Orissa, attempts were made to improve the monitoring, coverage and quality of services such as identification of the 'at risk' children, ensuring that they do take supplements, assessing the response to food supplements and, if there are non- responders, referring them to the PHC (primary health centers) for examination and management. It has been reported from data on three monthly moving average of children with severe under-nutrition in those blocks during the last two years that there was a decline in the severe grades and reduction in the seasonal variation in prevalence of severe grades of under-nutrition. These efforts should be sustained in the state.

25. National Institute of Nutrition has carried out a study in Andhra Pradesh for improving the monitoring of nutritional component of ICDS programme at district level. ICDS functionaries were trained and oriented to improve the quality and timeliness of the reporting. Analysis of the data and discussions on the implications of the reports with the functionaries facilitated the implementation of midcourse corrections (shown in the diagrams below) and led to impovement in performance.

26. Nutritional status based on weight for age is documented and reported in ICDS project. The data are seldom analysed and used because of fear that they may not be robust enough. However data from the AP study (shown in the GIS mapping of data above) indicates that the data generated by AWW is useful for monitoring of the block and district situation and could over time be useful for building up data base for nutritional surveillance. Based on the data, appropriately targeted interventions could be initiated. An increasing use of the data would encourage workers correctly to file their monthly reports. Under the Reproductive and Child Health initiatives the Auxiliary Nurse Midwife (ANMs) are to identify and refer 'at risk' undernourished women and children. Collaboration between ANM and AWW at the village level would improve implementation and monitoring of both health and nutrition programmes.

TRIPLE - A CYCLE



Micronutrient deficiencies

Anaemia

27. Anaemia is the most wide spread yet most neglected micronutrient deficiency/ disorder in India. Poor dietary intake of iron and folic acid are the major factors responsible for anaemia. Pregnant women and pre-school children are the worst affected. Prevalence of anaemia among pregnant women ranges between 50% - 90%. Training programmes to improve screening of pregnant women for anaemia and initiating appropriate therapy have been initiated as a part of RCH programme. However, the programme is yet to be operationalised. In the past serious shortage and poor quality of iron and folic acid tablets had crippled the programme. The RCH programme aims at eliminating these.

Iodine Deficiency Disorders

28. Iodine deficiency disorders (IDD) have been recognised as a public health problem in India since mid-twenties. The National Iodine Deficiency Disorders Control Programme has concentrated largely on ensuring the iodisation of salt and is one of the successful micronutrient programmes. However, production of iodised salt has been short of requirements, quality control is inadequate and transportation bottlenecks remain. Although most States have banned the sale of non-iodised salt, such salt is still available widely, even in goiter-endemic areas. The poor probably benefit least from IDD programme as they are more likely to consume uniodised salt which is cheaper.

29. As a part of its drive to prevent IDD among the general public, the Central Government issued a notification making it mandatory (w.e.f. May 1998) for all manufacturers of edible salt to iodise their product. There was a debate, however, on whether as a public health measure iodisation should be enforced through such statutory provision. In view of this, the Central Government has issued a preliminary notification in May 2000 proposing a future withdrawal of the compulsory statutory iodisation of edible salt. The issue is now open for public debate.

National Prophylaxis Programme against Nutritional Blindness:

30. There has been low coverage under the programme for massive dose of Vitamin A due to problems in accessing the children and shortage of Vit A. There has not been any improvement in consumption of foods stuffs rich in Vit A. However, there has been reduction in prevalence of blindness due to Vitamin A deficiency (from 0.3% in 1971-74 to 0.04% in 1986-89) and Bitot's spots (from 1.8% in 1975-79 to 0.4% in 1996-97).

31. Linking administration of first dose of massive dose Vit. A with measles immunisation had resulted in substantial improvement in coverage of first dose of Vit. A. In an attempt to improve coverage for second and subsequent doses of Vit A, Orissa had linked administration of Vit. A with pulse polio immunization (PPI) campaign. It is reported that the State took precautions to prevent overdosing by stopping Vit A administration in preceding six months. The State reported improved coverage. Problems with this strategy include:

- Special efforts are needed to ensure that only children between 1-3 years received Vit.A and 0-5 yrs. old children receive polio. This may not be easy as PPI is a massive campaign covering over 12 crore children and the booths are manned by persons who are not health professionals.
- Second dose of Vit. A for the year has to be administered through alternative strategy

32. In view of this it might be preferable to use a sustainable strategy for improving Vit.A status of children such as: 18

- Administration of massive dose of Vit.A through AWW twice a year say April and October .
- Nutrition education by AWW to improve intake of green/yellow vegetable

National Nutrition Policy

33. The National Nutrition Policy adopted in 1993 advocates a comprehensive inter-sectoral strategy for alleviating the multi-faceted problem of malnutrition and achieving an optimal state of nutrition for all sections of the society. Several of the concerned sectors have since reviewed the progress achieved and have revised their targets for the Ninth Plan/2010 AD. For instance the Family Welfare programme has undergone a paradigm shift and under the RCH programme Family Welfare targets have been revised. The goals set in National Plan of Action for Nutrition may have to be revised accordingly.

Annexure-I

OUTLAY FOR NUTRITION IN THE STATES & UNION TERRITORIES

(Rs. In lakh)

STATES	9th Plan OUTLAY NUTRITION	1997-98 OUTLAY NUTRITION	1997-98 Act. Exp. NUTRITION	1998-99 OUTLAY NUTRITION	1998-99 RE NUTRITION	1999-2000 OUTLAY NUTRITION
1	2	3	4	5	6	7
1 ANDHRA PRADESH	29985.00	4000.00	2515.00	7500.00	7500.00	4500.00
2 ARUNACHAL PRADESH	1940.00	331.00	281.00	241.00	224.00	228.00
3 ASSAM	8000.00	845.00	768.00	913.00	855.00	920.00
4 BIHAR	19500.00	2530.00	1098.00	3500.00	0.00	1400.00
5 GOA	400.00	70.00	47.00	45.00	45.00	50.00
6 GUJARAT #	82500.00	12550.00	11433.00	14000.00	12400.00	14000.00
7 HARYANA	2508.00	500.00	495.00	693.00	525.00	525.00
8 HIMACHAL PRADESH	4220.00	600.00	600.00	800.00	800.00	940.00
9 J & K	NA	835.00	738.00	825.00	825.00	825.00
10 KARNATAKA	16000.00	3738.00	3741.00	3884.00	3560.00	3850.00
11 KERALA	510.00	75.00	65.00	75.00	75.00	45.00
12 MADHYA PRADESH	12617.00	4139.00	3738.00	4700.00	4700.00	4960.00
13 MAHARASHTRA	17892.00	4339.00	3671.00	7538.00	7538.00	7458.00
14 MANIPUR	1630.00	200.00	188.00	230.00	230.00	230.00
15 MEGHALAYA	1400.00	200.00	179.00	250.00	244.00	260.00
16 MIZORAM	866.00	185.00	185.00	200.00	200.00	250.00
17 NAGALAND	1800.00	183.00	183.00	183.00	183.00	183.00
18 ORISSA #	47199.93	8200.00	5780.00	7329.00	7329.00	6474.00
19 PUNJAB	3458.00	300.00	294.00	300.00	225.00	500.00
20 RAJASTHAN	10225.00	1810.00	1007.00	1810.00	1262.00	1135.00
21 SIKKIM	1000.00	226.00	195.00	195.00	195.00	195.00
22 TAMILNADU #	50000.00	9086.00	10579.00	10220.00	13230.00	12417.00
23 TRIPURA	4773.00	695.00	682.00	578.00	578.00	658.00
24 UTTAR PRADESH	23200.00	3558.00	536.00	4500.00	1956.00	4500.00
25 WEST BENGAL	7291.32	2622.00	1262.00	2614.00	2613.00	4100.00
TOTAL STATES	**348915.25**	**61817.00**	**50260.00**	**73123.00**	**67292.00**	**70603.00**
UTs						
1 A & N ISLANDS	400.00	55.00	45.43	61.00	61.00	50.00
2 CHANDIGARH	25.00	5.00	5.07	5.00	5.00	5.00
3 D & N HAVELI	237.25	47.25	47.25	47.25	47.25	47.00
4 DAMAN & DIU	177.00	34.00	27.00	30.00	30.00	28.00
5 DELHI	15000.00	2075.00	2025.21	2920.00	2000.00	3210.00
6 LAKSHADWEEP	87.14	18.80	16.78	19.00	19.00	30.00
7 PONDICHERRY	2100.00	310.00	405.62	518.00	518.00	623.00
TOTAL UTs	**18026.39**	**2545.05**	**2572.36**	**3600.25**	**2680.25**	**3993.00**
GRAND TOTAL (STATES & UTs)	**366941.64**	**64362.05**	**52832.36**	**76723.25**	**69972.25**	**74596.00**

\# Includes funds for food supplement to groups other than ICDS beneficiaries.

Source : 1) STATE PLAN DIVISION, PLANNING COMMISSION
2) ANNUAL PLAN DOCUMENT, STATE GOVERNMENT

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Annexure - II

Annual financial Requirement for supplementary nutrition of Pregnant Women and Children

State	Planning Commission's Computation of Annual Requirement of funds (Rs. Crores) for supplementary nutrition (&)			No. of target beneficiaries estimated by Deptt.of WCD (Lakh)1999-2000	Funds to be required by Deptt. of WCD (Rs. crores) 1999-2000	Funds allocated by the state Govt. 1997-98 (Rs. crore)	Gap/(Surplus) (Rs.Crore)	
	Pregnant women	Children (0-4) years	Total				Plg. Comm.	Dept. of WCD
Andhra Pr.	24.59	55.63	80.22	34.1	102.3	40.00	40.22	62.30
Assam	19.68	45.36	65.04	2.84	8.52	7.86	57.18	0.66
Bihar	112.83	233.29	346.12	17.85	53.55	19.13	326.99	34.42
Gujarat	19.45	40.86	60.31	50.81	152.43	125.50	(65.19)	26.93
Haryana	9.15	20.71	29.86	0.96	2.88	5.00	24.86	(2.12)
Karnataka	25.55	60.02	85.57	28.01	84.03	37.79	47.78	46.24
Kerala	9.61	23.13	32.74	10.06	30.18	0.75	31.99	29.43
Madhya Pr.	70.14	141.11	211.25	6.43	19.29	41.54	169.71	(22.25)
Maharashtra	50.65	123.77	174.42	9.8	29.4	43.39	131.03	(13.99)
Orissa	30.18	63.47	93.65	28.15	84.45	62.38	31.27	22.07
Punjab	4.23	10.13	14.36	17.51	52.53	3.00	11.36	49.53
Rajasthan	30.57	62.89	93.46	43.76	131.28	10.10	83.36	121.18
Tamil Nadu	26.91	62.18	89.09	39.15	117.45	104.00	(14.91)	13.45
Uttar Pr.	150.26	288.90	439.16	2.89	8.67	5.00	434.16	3.67
West Bengal	41.11	102.43	143.54	1.76	5.28	21.60	121.94	(16.32)
Arunachal Pr.	0.64	1.73	2.37	1.07	3.21	2.81	(0.44)	0.40
Delhi	2.74	7.50	10.24	3.5	10.5	20.75	(10.51)	(10.[illegible])
Goa	0.22	0.88	1.09	25.82	77.46	0.50	0.59	76.96
Himachal Pr.	2.78	7.08	9.86	10.78	32.34	6.64	3.22	25.70
J&K	5.06	9.30	14.36	25.85	77.55	7.33	7.03	70.22
Manipur	1.07	3.14	4.21	0.45	1.35	1.87	2.34	(0.52)
Meghalaya	1.78	3.40	5.19	40.01	120.03	2.00	3.19	118.03
Mizoram	0.23	0.90	1.13	2.47	7.41	1.85	(0.72)	5.56
Nagaland	0.82	2.35	3.17	80.38	241.14	1.83	1.34	239.31
Sikkim	0.29	0.85	1.15	39.64	118.92	1.95	(0.80)	116.97
Tripura	1.73	5.44	7.17	0.31	0.93	6.95	0.22	(6.02)
A&N Islands	0.16	0.49	0.65	0.25	0.75	0.55	0.10	0.20
Chandigarh	0.12	0.37	0.49	2.95	8.85	0.05	0.44	8.80
D&N Haveli	0.17	0.36	0.53	0.11	0.33	0.47	0.06	(0.14)
Daman & Diu	0.04	0.08	0.12	0.07	0.21	0.34	(0.22)	(0.13)
Lakshadweep	0.03	0.07	0.09	0.05	0.15	0.19	(0.10)	(0.04)
Pondicherry	0.49	1.53	2.02	0.59	1.77	4.16	(2.14)	(2.39)
Total	643.26	1379.36	2022.62	528.38	1585.14	587.28	1435.34	997.86

\# Requirement was computed taking into account the population projections and % of BPL families; number in in the age group 0-4 years for each of the state/UT other than 15 major states, the average of the states/UTs has been used

& Annual financial requirements based on average cost of Rs.1.00 per Child and Rs.2.00 per woman per day for 300 days in a year

CHAPTER 19

INDIAN SYSTEMS OF MEDICINE & HOMOEOPATHY

The Indian Systems of Medicine and Homoeopathy (ISM&H) consist of Ayurveda, Siddha, Unani and Homoeopathy, and therapies such as Yoga and Naturopathy. Some of these systems are indigenous and others have over the years become a part of Indian tradition.

Strengths of the system:

- There are over 6 lakh ISM&H practitioners
- The practitioners serve in remote rural areas/urban slums
- They are accepted by the community

Problems faced by ISM&H :

- Lack of well qualified teachers in training institutes; quality of training is not of requisite standard,
- Lack of essential staff, infrastructure and diagnostic facilities in secondary/tertiary care institutions,
- Potential of ISM&H drugs & therapeutic modalities is not fully exploited,
- Existing ISM&H practitioners are not fully utilised to improve access to health care.

Approach in Ninth Plan :

- Improve quality of primary, secondary and tertiary care in ISM&H by strengthening educational institutes of ISM&H ;
- Preserve and promote cultivation of medicinal herbs and plants;
- Complete the Pharmacopoeia for all systems of ISM&H; drawing up a list of essential drugs belonging to these system;
- Draw up a list of essential drugs and initiate steps to improve their availability at affordable cost;
- Ensure quality control of drugs used and research & development of drugs, testing and patenting them.

Operational strategy for the Ninth Plan

The focus will be:

- To ensure improvement in the standard of research and teaching in all the systems of ISM&H
- Preservation & promotion of cultivation of medicinal herbs and plants
- Completion of the pharmacopoeia for all systems of medicine

Primary, Secondary & Tertiary Care: Progress of Institutions

2. Madhya Pradesh, West Bengal and Gujarat have ISM&H practitioners as the only medical practitioners in some remote PHCs and these practitioners provide primary health care to the needy population. States like Himachal Pradesh and Kerala have ISM&H practitioners in primary health care alongside physicians of modern medicine thus offering a complementary health care under both systems. Several states are setting up ISM&H clinics in district hospitals. Delhi has speciality clinics of Ayurveda and Homeopathy at Safdarjung Hospital and of Unani Medicine in Ram Manohar Lohia Hospital as a research activity. Apart from regular OPD, eminent leading Vaidyas /Hakims/ Homeopaths are rendering services once a week in these clinics. An advanced Ayurvedic Centre for mental Health care has been established at the National Institute of Mental Health Sciences, Bangalore. Central Deparment of Family Welfare is providing ISM&H drugs as a part of Reproductive Child Health (RCH) drugs in select States and cities.

Suggestions-

- Increase utilisation of ISM&H practitioners working in Government, voluntary and private sector in order to improve Information Education & Communication (IEC), counselling, increased utilisation and completion of treatment in national disease control and family welfare programmes.
- It is desirable that ISM&H clinics are funded by the respective primary, secondary and tertiary care institutions at the end of the Ninth Plan period.
- Monitor how the efforts in providing complementary system of health care to patients in the hospitals are utilised by the patients and effect mid course corrections.
- Improve tertiary care institutions especially those attached to ISM&H colleges and national institutions so that there is improvement in teaching, training, R&D and patient care, all at the same time.
- Establish effective referral linkage between primary, secondary and tertiary care institutions.

Development of Human Resources for ISM&H : Progress

3. Nearly 12,000 ISM&H practitioners of various

Indian systems graduate every year; many of the ISM&H colleges do not have adequate infrastructure or qualified manpower; they lack teaching and training material and function sub-optimally. The Department has taken several steps to improve the situation:

4. Central Council of Indian Medicine (CCIM) and Central Council for Homoeopathy (CCH) inspect educational institutions, register qualified ISM&H practitioners and revise curricula. State and Central Departments of ISM&H provide funds to improve and strengthen the existing undergraduate and post-graduate colleges of ISM&H to make them achieve norms prescribed by CCIM/CCH.

Para professional in ISM&H

5. The Department is currently preparing a course for Nursing and Pharmacy in Unani medicine. Some private organisations and state governments are conducting courses in Ayurvedic Pharmacy. States like Kerala and Rajasthan have courses on Ayurvedic Nursing. These courses are not recognised by any statutory body. Attempts are under way to sort out this problem.

Continuing Medical Education in ISM&H:-

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6. Majority of ISM&H practitioners have qualified from recognised institutions and could be utilised for improving coverage of national health programmes. Most of these practitioners are in the private sector and require periodic updating of the knowledge and skills through continuing medical education courses. It is also important to impart them knowledge about ongoing health programmes so that they could provide necessary counseling and help in other ways. Department of ISM&H provides scheme for re-orientation/in-service training with a total outlay of Rs.6.10 crore during Ninth Five Year Plan. This scheme offers one month's course for teachers and pysicians while ISM&H personnel get two months training in specialised fields like Ksharasutra, Pancha Karma therapy and dental practices and in yoga. Department of Family Welfare has sanctioned Rs. 68.8 lakhs to 30 ISM&H institutions for conducting pre-training programmes.

Suggestions:-

- Develop one functioning centre in each system as National Institute with adequate financial assistance .
- Educational institutions to seek accreditation before they initiate enrolment; mandatory periodic review for continued recognition.
- Ensure that students have access to hospitals with requisite number of patients for clinical training and clinical skill development.
- Ensure uniformity in entry standards and in curricula.
- Improve quality of undergraduate training and clinical skills through internship coupled with multi-professional interaction.
- Curricula changes are required in graduate and Continuiing Medical Education (CME) courses and course contents should help widen the involvement of ISM&H practitioners in counselling and greater utilisation in services under the National Health and Family Welfare..

Preservation & Promotion of Cultivation of Medicinal Herbs/Plants: Progress

7. Planning Commission had constituted a Task Force on conservation, cultivation, sustainable use and legal protection of medicinal plants. The following recommendations were made :

a. Establishment of 200 Medicinal Plant Conservation Areas (MPCA), covering all ecosystems, forest types and subtypes preferably inside the protected areas already notified under the Wildlife Act.

b. For 50 medicinal plant species which are rare, endangered or threatened their ex-situ conservation may be tried out in established gardens managed by agriculture, horticulture, forest and other departments.

c. Three gene banks created by Department of Biotechnology should store the germ plasm of all medicinal plants.

d. Two hundred "Vanaspati Van" may be established in degraded forest areas (with an area of about 5000 hectares each). Intensive production of medicinai plants from these "Vanaspati Vans" will produce quality herbal products and generate productive employment to 50 lakh people, especially women, who are skilled in herbal production, collection and utilization.

e. One million hectares of forest area rich in medicinal plants (about 5000 hectares each at 200 places) should be identified, management plans formulated and sustainable harvesting encouraged under the Joint Forest Management (JFM) system. Such areas, besides producing herbal products, will generate employment for 50 lakh tribals.

f. Fifty NGOs that are technically qualified should be entrusted the job of improving awareness and availability of plants stock and agro-techniques for cultivation of medicinal plants. Twenty-five species having the maximum demand should be cultivated under captive and organic farming.

g. All attempts should be made for medicinal plants' screening/testing/clinical evaluation/safety regulation as well as research and development safety, efficacy, quality control, pharmacopoeia development; these efforts should be expedited and completed by the year 2003.

h. Drug Testing Laboratories for ISM&H products should be established with staff qualified to test the plant/ mineral based products. Training should be imparted to the laboratory staff, drug inspectors and to the quality control managers/in-charges of the manufacturing units so that they are able to identify the raw materials and ensure that essential properties are present in those medicinal plants.

i. To prevent patenting of traditional knowledge by outsiders, all the available information should be properly formatted in a digital form by using international standards for wider use both at national and international level. Efforts should be intensified to create an Indian Traditional Knowledge Base Digital Library.

j. The Task Force recommends establishment of "Medicinal Plant Board" for an integrated development of the medicinal plants sector. It is expected to formalize and organize medicinal plants marketing and trade, coordinate efforts of all the stakeholders of the sector and ensure health for all by improving the awakening and availability of herbal products, besides generating productive employment to one crore tribals and women on a sustainable basis. The proposed Board will need a financial assistance of Rs. 50 crores over a period of three years.

Pharmacopoeial Standards:-

8. Setting up pharmacoepoeial standards has been identified as a priority in the Ninth Plan. Availability of good quality drugs at affordable cost is an essential pre-requisite for any health programme. Currently the country is facing problems in ensuring quality of drugs. The Pharmacopoeial Laboratory of Indian Medicine (PLIM) and the Homeoeopathy Pharmacopoeial Laboratory (HPL) at Ghaziabad are the major drug testing laboratories in ISM&H. In addition, the state governments have also been advised to set up drug testing laboratories.The Department has finalised and notified Good Manufacturing Practices for Ayurveda, Siddha and Unani drugs in the last two years. There is still a major problem in ensuring quality control because of lack of adequate number of ISM&H drug testing laboratories.

Suggestions :

- Utilisation of laboratories of Central Council for Research in Ayurveda and Sidha (CCRAS) and chemistry and biochemistry laboratories of universities/college departments as well as existing drug testing labs in modern system of medicine for drug testing and quality control of ISMH drugs.
- Implementation of stringent drug control by the Drug Controllers and strict enforcement of provisions of the Drugs and Cosmetics Act and the Magic Remedies Prevention Act.

Research and Development :

9. The four Research Councils in ISM&H are currently undertaking clinical research on ISM&H drugs, research studies on drug standardisation, survey and collection of medicinal plants, potency estimation of homoeopathic drugs as well as shelf life studies of different homoeopathic drugs, clinical research and clinical screening and pharmacological studies of oral contraceptive agents in Ayurveda. In addition to the Research Councils, the Department has a programme of Extramural Research Project under which funds for research projects are given to research organisations.

Suggestions:

10. The ongoing research projects are scattered and few in number; many are not in identified priority areas. The linkages between research institutes with educational and service institutions need to be strengthened. The Ninth Plan has emphasised focussed attention on R&D especially clinical trials on new drug formulations, clinical trial of promising drugs through strengthening of the Central Research Councils and coordination with other research agencies. Special emphasis has been laid on encouraging research aimed at improving ISM&H inputs in National Health Programmes. Clinical trials may be conducted on testing of drugs traditionally used in illnesses and of those used in tribal societies for safety and efficacy and also research on developing new drug formulations.

Involvement in National Progamme

11. The Department of ISM&H is associated with the RCH Programme of the Department of Family Welfare. Thirty institutes have been identified for providing training to ISM&H physicians in RCH and funds have been

provided by Department of Family Welfare for inclusion of Ayurvedic and Unani drugs in the drug kit of ANMs. ISM&H involvement in all other Central and State Health Sector Programmes, e.g., Malaria, Tuberculosis control, diarrhoeal diseases control will have to be taken up in a phased manner.

Outlays and Expenditure:

12. The total outlay proposed for the Department of ISM&H during the Ninth Plan period is Rs.266.35 crore. The outlay and expenditure for Annual Plan 1997-98, outlays for 1998-99 to 2001-2002 is given in Table I.

Table - I
APPROVED OUTLAY AND EXPENDITURE FOR ISM&H

Rs. in Crores

Eighth Plan Outlay (1992-97)	Ninth Plan Outlay (1997-2002)	1997-98 (B.E.)	1997-98 (Actual)	1998-99 (B.E.)	1998-99 (R.E.)	1999-2000 (B.E.)	1999-2000 (Anti. Exp.)	2000-2001 (B.E.)
108.00	266.35	35.30	33.04	50.00	49.00	59.13	55.00	100.00

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CHAPTER 20

DRINKING WATER SUPPLY AND SANITATION

Drinking water supply and sanitation is not only a basic necessity of life; it is also crucial for achieving the goal of "Health for All." The Ninth Five Year Plan envisages provision of potable drinking water to every settlement in the country and all possible measures for rapid expansion and improvement of sanitation facilities in urban as well as rural areas. This would be achieved through an appropriate mix of Central and State investments, institutional finance, strengthening of operation and maintenance system and more importantly by the involvement of communities at various stages of planning, implementation operation and maintenance. Though provision of safe drinking water and sanitation is the primary responsibility of State Governments and more specifically of the local bodies, Central Government has been supplementing these efforts by financial and technological inputs through four Centrally Sponsored Schemes: Accelerated Rural Water Supply Programme, Accelerated Urban Water Supply Programme for Small Towns below 20,000 population (as per 1991 census) , Rural Sanitation Programme and Urban Low Cost Sanitation for Liberation of Scavengers. A few support programmes go with these schemes as well.

Performance During First Three Years of Ninth Plan.

Financial:

2. The Ninth Plan outlay for water supply and sanitation sector is Rs 39,538 crore - Rs. 30,024 crore under State and UT (Union Territory) Plans and Rs. 9,514 crore under Central Plan. Against this, the likely expenditure during the first three years has been indicated as 51.39 % in nominal terms and 45.40% in real terms as shown in the Table-1 below.

Urban Water Supply and Sanitation

3. Urban water supply and sanitation have remained an important area of concern and allocation of funds is being made from the First Plan. The outlay for Urban Water Supply and Sanitation, which was Rs.43 crore in the beginning, increased to Rs.550 crore by the Fifth Plan. However, despite a rapid increase in the urban population, there was a gradual shift in priority from Urban to Rural Sector from the Sixth Plan onwards. The percentage share of the sector out of the total public sector outlay only showed a marginal increase from 1.28% to 1.38% between the First Plan and the Eighth Plan. In the Ninth Plan, this dramatically improved to 2.17%.

4. In the absence of any regular/periodical monitoring arrangement, it has not been possible to ascertain , with accuracy, the factual population coverage of these facilities in urban areas. However, by the end of Seventh Plan, the reported coverage with regard to potable drinking water and sanitation was at the level of 84% and 48% respectively. At the beginning of Ninth Plan, the reported level stood at 90% and 49% respectively. However, the service levels of water supply in most cities and towns are far below the desired norm and — in some cases particularly the smaller towns — even below the rural norms. The coverage figures are based on average supply level and therefore do not truly reflect inter-state and regional disparities within the States and even within the city itself. The poor, particularly those living in slums and squatter settlements, are generally deprived of basic

Table –1

Expenditure during the first 3 years of Ninth Plan

(Rs. crore)

	9th Plan Outlay	Likely Expdr. During first two years (1997-99)	Outlay for 1999-2000	Total for first three years (1997-2000)		Percentage to 9th Plan outlay	
				In Nominal terms	In real terms	In Nominal terms	In real terms
State/UT Plans	30024	9207.10	5809.94	15017.04	13263.37	50.02	44.18
Central Plan	9514	3258.46	2044.95	5303.41	4687.86	55.74	49.27
Total:	39538	12465.56	7854.89	20320.45	17951.23	51.39	45.40

facilities. Similarly, though about 49% of urban population had provision of sanitary excreta disposal facilities, only 28% had sewerage system and the balance 21% used only low cost sanitation facility. Even where sewerage system existed, the facilities are partial and without adequate treatment. In the case of solid waste disposal, only about 60% of the generated waste is collected and disposed of —just half of it disposed of sanitarily. Separate arrangements are generally non-existent for safe disposal of industrial, hospital and other toxic and hazardous wastes.

General Problems of Urban Water Supply & Sanitation (UWSS)

India's UWSS Sector faces many problems and is currently bound by a vicious circle of circumstances. Notably:

- many UWSS providers are not financially viable nor can maintain services without extensive subsidies;
- existing UWSS services fall short of full coverage of population and are often of low quality due to insufficient funding of O&M (operation and maintenance). Sanitation services, in particular, are generally inadequate and access to acceptable UWSS services is extremely limited for the poor communities; and
- environmental degradation – the resource as it is currently used — is increasingly insufficient and over-exploited.

These problems arise because most UWSS managers lack the necessary management skills, autonomy and accountability for their performance.

The improvement in service provisions will help cut through the "vicious circle" of problems with resultant deterioration of sector assets and be a stepping stone to the creation of the "vicious circle" thus helping to establish a sustainable UWSS sector for the future.

(Source: World Bank – "Urban Water Supply & Sanitation Report – Vol.I (Main Report)

5. The ongoing Accelerated Urban Water Supply Programme (AUWSP) is for small towns with population less than 20,000 (as per 1991 census) up to 31.3.2000. Under it, 438 towns — including 216 during the Ninth Plan — have been approved at an estimated cost of Rs.499.66 crore; of this, Rs.201.57 crore has been released so far including Rs.132.95 crore during the Ninth Plan. In all, 104 schemes have been commissioned. While reviewing the progress, the Ministry of Urban Development was in agreement with the Planning Commission in concluding that the following issues/problems stood in the way of effective implementation of the programme :

- Changing priority list by the State Governments.
- Non submission/delay in submission of DPRs (Detailed Project Reports).
- DPRs prepared by States without observing the prescribed guidelines.
- Delay in according administrative approval by the State Governments to sanctioned schemes.
- Non release/delay in providing matching State share. Non submission of progress report.
- Non submission of utilisation certificate.
- Physical/financial constraint in project implementation.
- Non completion of sanctioned schemes for many years.
- No advance action taken for land acquisition by the States.

Recommended strategy on improving the system of Urban Water Supply & Sanitation

The key elements of the strategy are:

- democratic decentralisation through municipalization of responsibility for UWSS service, including promoting inter-municipal coordination and an enhanced role for civil society associations;
- commercialisation and private participation in service provisions, both for municipal and multi-municipal schemes;
- market oriented financial systems, including developing of direct access to capital markets through bond issues, new forms of financial intermediation and leveraging public resources.

Like Central Government, State Governments should reorient Plan financing and existing state financial intermediaries towards leveraging reform and developing market-based lending to the Sector. State Governments also need to work with selected municipalities to encourage demonstration projects in the State.

(Source: World Bank "Urban Water Supply & Sanitation Report – Vol.I (Main Report)

6. The ongoing scheme of "Urban Low Cost Sanitation for Liberation of Scavengers" is being implemented by the Ministry of Urban Development through HUDCO (Housing & Urban Development Corporation) on a whole-town basis. The primary objective is to abolish the practice of manual handling of human excreta by converting all existing dry latrines (around 50 lakh of them) into sanitary ones. Besides, there were around 69 lakh houses without any latrine facility where new sanitary latrines are to be constructed. Up to

31.3.2000, 825 schemes have been sanctioned at a project cost of Rs.1,339.98 crore involving a loan amount of Rs.610.73 crore and Central subsidy of Rs.467.91 crore. Conversion of dry latrines into sanitary ones and construction of new sanitary latrines, which would be carried out through these schemes, number about 37.64 lakh. Besides, 3,463 community toilets would also be constructed. A total number of 1,322 towns have been covered and 1,22,523 scavengers are expected to have been liberated. The loan and subsidy amounts released were Rs.276.29 crore and Rs.246.93 crore respectively. Units actually completed (conversion/new construction) were only 9.32 lakh and units in progress were 3.74 lakh. Total number of scavengers liberated was 30,509 and 165 towns have been declared scavenging- free. Some of the main reasons for very slow progress of the scheme are:

- Very low priority given to the programme by the State Governments and the people at large.
- Absence/lack of software components and motivational efforts in the programme.
- Inadequate organisational capacity of the States/ULBs (urban local bodies) for implementation of this scheme on a large scale.
- Lack of proper coordination between two components of the programme viz., (i) Conversion / new construction of latrines being administered by the Ministry of Urban Development through HUDCO and (ii) Rehabilitation of Liberated Scavengers being administered by the Ministry of Social Justice and Empowerment. It is better if one single Ministry/ Department administers both the components.
- Delay in obtaining State Governments' guarantee by ULBs for availing HUDCO loan assistance.
- HUDCO's unwillingness to sanction projects of some local bodies due to default in re-payment by other local bodies in that State.
- No subsidy is provided for super structure .
- The Central legislation known as "Employment of Manual Scavengers and Construction of Dry Latrines (Prevention) Act 1993 is applicable to all UTs w.e.f. 26.1.97 and has by now been adopted by 12 States viz. Andhra Pradesh, Goa, Karnataka, Maharashtra, Tripura, West Bengal, Orissa, Punjab, Assam, Haryana, Bihar and Gujarat. But even where it is adopted, the Act is not being enforced strictly.

Issues and Policy Implications

7. Main issues and policy implications are :

a) As a follow up of 73rd and 74th Constitutional amendments, most States are likely to entrust the responsibilities of operation and maintenance of urban and rural water supply system to local bodies and Village Pancahyats. Therefore it would be necessary for the State Finance Commissions to lay down the norms and other financial implications, assess requirements of funds and also make suitable recommendations for provision of finances by category of towns and villages.

b) Areas of concern in operation and maintenance of water supply include paucity of funds, non-availability of adequate trained manpower and over-centralisation. Percentage of revenue generation to O&M cost in cities of Calcutta, Nagpur, Pune, Ludhiana, Lucknow and Kanpur (in March 1998) was 14, 48, 49, 40, 50 and 78 respectively. Even in Delhi, the national capital city, the revenue generation was only about 26% of the production cost in 1997-98, though this has improved to 43% in 1999-2000. Cost of 1 kilo litre of treated water in Delhi is roughly Rs.4.61, whereas the Delhi Jal Board (DJB) is charging roughly Rs.1.99 on an average, that too after almost doubling the rates recently. There are also some good examples where revenue generation is more than 100%, e.g Hyderabad (230), Mumbai (268) and Chennai (184). In view of inadequacy of funds, it is increasingly becoming important that water supply and sanitation be recognised as utility services and local bodies be given greater autonomy for determining the tariff through automatic annual increase to cover the cost. It would greatly help if the tariff fixation is based on average incremental cost including operation and maintenance cost, depreciation charges, debt dues etc. Even though subsidy is provided, it should be transparent and better targeting should be done to meet basic minimum requirements of the poor. Efforts should however, be carried out to ensure reduction in O&M cost by effecting savings on manpower and energy consumption, reduction in unaccounted for water as also improvement in the system of billing and collection. Even in areas like sewerage, there is no direct sewerage tax and this should be collected as part of property tax. For better realisation, some cities are being encouraged to consider charging direct sewerage tax.

c) In view of huge requirement of funds for urban water supply and sanitation as also constraint on Government's resources and other competing demands, it is imperative that larger reliance is placed on .institutional financing. More innovative and broad based approach is called for to finance and manage urban water supply and sanitation facilities – implying a shift from exclusive dependence on budgetary support to resource mobilisation through institutional finance/market borrowing, enhanced participation by private sector in activities which can be performed more efficiently by them. Waste utilisation as a commercial activity may be promoted through finance-cum-subsidy scheme. The concept of BOO/BOT/BOOT in the field of urban infrastructure financing could also be promoted and supported. External support agencies have to play a still bigger role in terms of financing and technology transfer.

Tirupur Integrated Area Development Programme (An Innovative Approach to Private Sector participation)

With private sector participation, a special purpose vehicle (SPV) has been formed in Tirupur, Tamil Nadu, to develop local infrastructure in areas of road transport, telecommunication, water supply to textile industries and urban population, sewerage, low cost sanitation and industrial waste treatment. Named New Tirupur Area Development Company Limited (NTADCL), the company was floated in 1995 with an initial equity of Rs.40 crore; the funds were equally contributed by Central Government (Ministry of Commerce), Government of Tamil Nadu, Infrastructure Leasing and Financing Services (IL&FS) and Tirupur Exporters' Association Of the infrastructural areas, the SPV has given priority for water supply to textile industries in Tirupur as well as domestic supply to Tirupur municipality and for disposal of municipal sewage. Industrial waste has not been included in its concerns because this responsibility has been given to the respective industries. For water supply and sewerage requirement, bids have been floated under the BOOT concept. Local leading financial institutions like IDBI, SBI, LIC, GIC and UTI are participating in the debt component.as also contributions from World Bank (25% of project cost) and USAID ($ 20 million).. The State Government has given a 30-year concession to the SPV to construct the project and operate it. Financial closure is expected shortly Equipment Procurement and Construction (EPC) value is around Rs.750 crore and the total project cost (including other financing cost like management, debt services etc) is Rs.1,100 crore. There is cross subsidy of tariff between industries and domestic sectors. Out of a total production of 185 MLD of water, industrial demand has been estimated as 100 MLD and tariff is around Rs.50/- per kl and domestic tariff is Rs.5/- per kl (bulk supply to Tirupur Municipality). Construction period is three years and contract is expected to be signed shortly.

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d) India's average annual precipitation is nearly 4000 cubic kilo metre, a part of which goes towards increasing the ground water storage, a part is lost as evapotraspiration and the balance flows as surface water. The average volume flow in the river systems has been estimated to be 1880 cu.km. However, due to much lower storage capacity, the quantum of water utilisable through surface source is about 690 cu.km. only. Similarly, the quantum of ground water that can be extracted economically from the ground water aquifers every year has been estimated to be 450 cu.km. Thus on an average, 1140 cu.km. of water may be reckoned as available for exploitation. Compared to the quantity of utilisable water resources of 1140 cu.km. the estimated demand in the year 2025 is of the order of 1050 cu.km. Therefore, in absolute terms, there could be no shortage of water in the country. However, there are large variations in rainfall from region to region, season to season and year to year. The spatial and temporal variations in precipitation have led to complex situations such as the distinctly different monsoon and non-monsoons, the high and low rainfall areas and drought-flood-drought syndrome due to numerous factors. As the overall demand in 2025 would be close to the total water available, the National Water Policy of Government of India stresses the urgent need for conservation of water with the objective to foster efficient utilisation in all the diverse uses of water. The demand for community water supply in urban as well as rural areas in 1990 was about 25 cu.km. which would increase to 33 cu.km. in 2000 and to 52 cu..km in 2025 due to growth in population, as also due to improved life style of the people. The National Water Policy has accorded top priority to Drinking Water Supply in the allocation of water resources for various beneficial uses. It is, therefore, very necessary to make long-term planning of water resources management for a period of 30-40 years ahead by National and Provincial Governments by preparing Water Resources Management Master Plans and implementing the same effectively.

e) In view of fast growing population, urbanisation and industrialisation on one side and diminishing water resources on the other, it has become imperative to conserve available water and harvest rain water to the maximum extent possible. This could be done through various measures like leak detection and rectification works , rain water harvesting, controlling indiscriminate extraction of ground water and recharging of aquifers. For assessing the Unaccounted For Water (theft, pilferages, line and other losses), meters could be installed in the trunk mains. In larger urban and particularly water- stress areas, a system of roof-top rain water harvesting should be made mandatory for urban development agencies/private colonisers . Percolation structures, wherever suited, should also be encouraged in open grounds and road-side; this would help recharge bore wells and can also provide water for uses like gardening, car washing etc, thus reducing load on fresh/treated water requirement. For road-side percolation, it would be desirable not to make pucca pavement with cement/concrete/stones, but it can be filled up with pebbles and coarse-sand to allow fast percolation. All these measures may reduce the frequency and intensity of floods. It may also improve the quality of ground water through dilution, especially for fluoride and nitrate. Some successful experimentation on rain water harvesting and percolation structures has been done in Jawaharlal Nehru University, IIT campus Delhi and Rashtrapati Bhavan. In Chennai, various water conservation measures have been systematically taken up and the leakage level in the water supply system has been brought down from 30% to 5% — by all means a great achievement. Similarly there has been substantial improvement in average ground water level fluctuation in and around the city.

Comprehensive Water Management - Chennai

Keeping in view the expected gap in demand and supply of drinking water for Chennai city, the Chennai Metro Water has taken several measures for water conservation, equitable distribution and plugging of leakages. Indiscriminate extraction of ground water exploitation is being controlled and ground water recharged through roof-top rain water harvesting. This is ensured as a mandatory measure. Improved operation and maintenance is tried out through replacement of the house service lines with non-corrosive MDPE pipes and also by renewal of all damaged distribution mains and PVC/AC distribution mains with C.I Pipes. This is stated to have brought down leakage level in the distribution systems from almost 30 percent to 5 per cent. All this has resulted in substantial improvement in the average ground water level fluctuation of Chennai City.

f) Progress under "Urban Low Cost Sanitation for Liberation of Scavengers" suggests there is a long way to go before manual scavenging in the country is abolished. Hardly about 8% of the dry latrines were converted into sanitary latrines during the Eighth Plan and the first three years of the Ninth Plan. In order to achieve the objective, it will be necessary to remove all bottlenecks hindering the progress of the scheme. It would also be necessary to adopt a three-pronged approach which includes strong IEC (Information, Education & Communication) and motivational efforts, easy and comfortable loaning facilities to the beneficiaries and strict enforcement of legislative measures to prevent employment of manual scavengers and construction of new dry latrines. It would also be desirable that both the components of the programme viz., (i) Conversion of Dry Latrines into Sanitary Latrines and (ii) Rehabilitation of the Liberated Scavengers, are implemented by one single Ministry/Department for better coordination between the two components. The second component is now being administered by the Ministry of Social Justice & Empowerment.

g) Many experts claim that our three-fourths of surface water resources are polluted and 80% of pollution is created by sewage alone. It is estimated that more than 12000 million litres per day (mld) of waste water is generated in Class I cities and about 1300 mld in Class II towns, whereas only about 20% and 2% respectively get primary or secondary treatment before disposal. While many sewage treatments were based on the established technology such as Activated Sludge Process, Trickling Filter and oxidation pond, emphasis is now laid on low cost treatment technologies which have been developed through R&D efforts such as Land Treatment, Up-flow Anaerobic Sludge Blanket (UASB) technology, use of raw sewage for afforestation based on Karnal technology and using aquaculture. Emphasis is also laid on resource recovery from effluents of the Sewage Treatment Plants to minimise the cost of operation and maintenance and maximize the revenue generation by use of treated sewage for irrigation and aquaculture and sale of sludge for manure and bio-gas generation for producing electricity and domestic fuel. On an average a healthy person discharges 100 to 400 grams of fecal matter and 1 to 1.31 kilogramme of urine per day which has nitrogen, phosphate and potassium in sufficient quantities in addition to organic matter. All these are essential for plant growth and applied as chemical fertilizers in agriculture for better crop yield. After treatment, sewage may be used for irrigation, aquaculture and some industrial purposes. Raw sludge produced in the process, if it is not further processed, creates another pollution problem because it is foul smelling and houses many pathogens. Now it is realised that it is a valuable resource. In this era of energy crisis, it is viewed as an economic source of methane, a fuel. If all the sewage is put for irrigation, it is assumed, about 82,000 tonnes of nitrogen and 24,000 tonnes of phosphorus input as chemical fertilisers may be saved. The over supply of nutrient rich sludge and sewage is causing eutrophication and premature aging of recipient water bodies. The concentration of nitrogen, phosphate, potassium and organic matter in cities having population of more than 50 thousands is 645, 148, 282 and 5377 tonnes per day. Despite so much technological advancements, one is unable to use this resource and as a result dumps about 1685 million rupees per year in water courses. The value of water for irrigation is additional 490 million rupees. Some cess on fertiliser could therefore be considered for funding this activity.

h) Management of Urban Solid Waste is one of the most neglected areas of urban development in India. There has been a decline in the standard of services in collection and disposal of household,, industrial and hospital waste. In most cities nearly half the solid waste remains unattended and there is a need for generating awareness for action throughout the urban sector. Lack of financial resources, inadequate manpower, fragmentation of administrative responsibility, non-involvement and lack of awareness of community are major constraints in solid waste management. Poverty and low standards of living in the slum areas add to the adverse effect on environmental sanitation. Considering the complexity of the problem, it is necessary to evolve a suitable national strategy even though its implementation can best be handled at the level of municipalities and urban local bodies. A Technology Advisory Group has already been constituted in the Ministry of Urban Development and guidelines are being formulated for working out suitable strategies relating to solid waste management. For attracting and encouraging private capital in this area through mechanisms like BOT & BOOT, certain reforms are being contemplated and it is hoped that the State Governments would formulate this as part of the urban reform agenda. Selection of technology for disposal of bio-degradable solid waste in a town would depend on various considerations like quality and quantity of waste, climatic condition and availability of land, but composting method using the successfully experimented wormi-culture technology would be the most suitable option for the country like India, if it is otherwise technically feasible. In order to encourage private sector participation, some initial subsidy and concessional rate for land could be considered by the State Governments/ULBs. On an average Rs.1 core to Rs 2 crore per town up to a population of 1 lakh could be considered as initial subsidy for setting up compost plants. Running cost should be self financing and therefore no subsidy would be required for it.

Rural Water Supply

The increasing gap

8. Despite good monsoons continuously for the last eleven years and high priority by the Central Government for the programme of augmenting the supply of drinking water by way of funds and attention, the problem of potable drinking water has remained unresolved and in fact is becoming more serious every year. Although the Ministry of Rural Development claims more than 95% coverage, independent reports show scarcity of drinking water in about half of the villages of India. What is even more distressing is that this gap has been increasing over the years, despite heavy investment.

9. In 1972, surveys revealed that out of a total of 5,80,000 revenue villages there were 1,50,000 drinking water 'problem villages' in India. By 1980, some 94,000 villages were covered by Government and 56,000 were left uncovered. But the 1980 survey put the number of problem villages actually at 2,31,000, and not merely 56,000. By 1985, all but 39,000 villages were covered but the new survey showed 1,61,722 problem villages. Again, by 1994, they were all covered leaving only 70 uncovered villages but the 1994 survey revealed 1,40,975 problem habitations. This time the number included both revenue villages as well as hamlets (the total of which is about 14 lakhs, henceforth called habitations).

10. Since 1994, state governments, with the help of funds from Government of India, have again provided clean water to almost all the habitations or would do so by the end of 1999-2000 , with only 5% more to be covered by 2001-02, but surveys hardly support this optimistic picture and on the other hand indicate acute hardship and quality problems in about half of the habitations. Why this extraordinary discrepancy between government records and reality?

11. At the beginning of the Ninth Plan, there were about 0.85 lakh "Not Covered"(NC), 3.91 lakh "Partially Covered" (PC) and 1.40 lakh "Quality Problem" (QP) habitations. The Ninth Plan seeks to cover all the NC, PC and QP habitations with safe drinking water at the existing norm of 40 lpcd, giving first priority to NC/PC (0-10 lpcd) habitations. As per reports received from the States through Department of Drinking Water Supply , 0.62 lakh NC and 2.42 lakh PC habitations have been covered with water supply facilities during the first three years. This would have left a balance of 0.23 lakh NC and 1.49 lakh PC as on 1.4.2000. However, as per the reconciled/updated figures now received from the State Governments, the balance numbers as on 1.4.2000 are 0.26 lakh NC, 2.13 lakh PC and 2.17 lakh QP habitations. The National Agenda for Governance seeks to provide safe drinking water to all habitations within five years i.e., by March 2004. A large number of surveys have been done since 1996 to check the validity of government figures as also to measure the level of public satisfaction.

PEO survey (1996- 97)

12. The Plan Evaluation Organisation (PEO) studied.87 villages in 29 districts of 16 States were studied by Although in the selected villages, the number of people who had access to drinking water from government sources had increased from 69% to 81% between 1986 and 1996, PEO came across serious problems even though the definition of 'providing' water was very liberal: source need to be within 1.6 km, one hand pump (HP) would suffice for 250 persons and 40 litres a day per adult in a habitation would be taken as fully covered (FC).

13. Of the 29 districts studied, 19 reported the problem of frequent water scarcity. Of the 87 villages 40% complained of shortage during summer months and 30% people reported that water supply was not dependable. There was frequent breakdown of power in case of piped water supply and damage in pipelines led to leakages and contamination; for HPs quality of construction was not satisfactory in 47% cases and there was frequent mechanical failure.

14. Agencies complained of untimely release of funds and shortage of staff – there was embargo on recruitment in some States. For instance, 11 mechanics looked after 4,000 pumps in Bijnore (UP) in the entire district. Often testing and maintenance are responsibilities of different departments, only in 27.6% cases routine maintenance activity of oiling etc. was undertaken. About 87% of the districts reported breakdowns during the year, out of which only in 43% cases repairs were undertaken. Often spares were not available and funds were inadequate. Only in 12 out of 29 districts training was said to be imparted;, although 12,191 people were claimed to be trained, the PEO team did not find them in any of the 87 selected villages.

15. Local communities participated only in 20 out of 87 villages, mostly in identifying suitable sites and contributing their labour, involvement in O & M was hardly observed. In 21% cases panchayats looked after O & M, in 9% cases panchayats supervised and regulated water supply, only in 3 out of 87 villages water committees were formed.

16. A large percentage of people in rural areas suffer from water-borne diseases like diarrhoea and cholera indicating use of unprotected/unhygienic drinking water sources. Even in those villages where quality was said to have improved after treatment, the incidence of water borne diseases had not come down. Reasons identified were:-

- platforms for HP and pipelines were not well laid leading to contamination of water,
- drainage was not satisfactory,
- testing of water was not done,
- disinfection was not carried out, and
- people fell back to original contaminated source as water supply from new source was not dependable,

17. No source villages re-emerged because of depletion of groundwater, major mechanical defects or water being contaminated leading to disuse. About 56% of the no-source villages were never covered under the schemes because they were not approachable, they had peculiar topography, or were new habitations.

18. In many districts water table had gone down by 15 metres to 20 metres, increasing the problem of scarcity as well as quality. Programmes leading to charging of aquifers through water harvesting were needed, but these measures required inter-departmental coordination that was lacking. Legislation was needed to ban over-exploitation for irrigation.

Study for 74 Disitricts in 1998

- 59% people felt supply was inadequate
- 12% households said that the quality of water was not potable
- 98% households reported that there was no regular quality testing of drinking water sources
- 20% sources non-functional at any time
- Of these, half have minor defects
- 35% defects remain unattended for more than a month
- 83% people had never met a water official
- 54% villages willing to pay for water

19. The National Council for Applied Economic Research (NCAER) carried out a detailed survey of 1765 villages spread over 195 districts between January and May, 1994. The survey concluded that about one-half of all villages in India do not have any source of protected drinking water. Of the other villages 17% reported pipe water as the dominant source of drinking water, another 18% villages were using hand-pumps and 13% had other sources of protected water. The assessment of the NCAER is in sharp contrast to the official claims that in 1994 more than 80% villages were receiving adequate supply of potable water.

20. Since these studies indicated large discrepancy between Government records and the ground reality, the matter was taken up by the Planning Commission with the Department of Drinking Water Supply. The Department

clarified that their records in respect of coverage are maintained on the basis of nationwide habitation-survey conducted through State Governments in 1991, revalidated in 1994, updated in 1996-97 and the subsequent coverage intimated by the State Governments. The Department . is of the view that for the purpose of collecting and compiling information the State Governments are the most appropriate source of data and there should be no reason to doubt the information furnished by them. They are also of the view that though these studies are helpful in giving a broad feedback on the implementation of the scheme, it would not be appropriate to generalise the findings and draw conclusions from them because the samples taken for these studies were rather small in size. They also clarified that the information furnished by the State Governments was based on 1991 census and 1991 survey whereas the population since then has increased leading to emergence of new habitations. New habitations also emerge due to natural disasters like earth-quake, flood, cyclone etc. This, together with the non-sustainability of sources and systems due to variety to reasons, may cause re-emergence of un-covered/partially covered/ quality problem habitations negating the efforts of the Government initiative. In the existing monitoring arrangement, such negative coverage is not being accounted for. The Planning Commission has also taken up this issue with the Department of Drinking Water Supply and suggested appropriate modifications in the present monitoring formats to remove anomaly in the reporting system. The Department has accepted this.

21. There are some States which have not been able to get the full release of allocated fund of Central assistance under the ARWSP particularly due to non-provisioning of matching State Plan funds and thus have lost quite a substantial amount of Central assistance during the Eighth Plan and during first three years of the Ninth Plan. The biggest loser has been Bihar which has lost about Rs.400 crore of Central assistance during the last five years (see Box).

Audit Review by A.Gs

The Accountant Generals of the States reviewed in 1998 documents of Rural Water Supply Departments in 304 Divisions spread over 24 States to estimate to what extent the primary objective of providing safe drinking water in a cost effective manner has been achieved. The audit review has brought out a number of issues of serious concerns and shortcomings in the implementation of the programme involving misuse of Public Exchequer Funds of substantial order. These are:

- Re-emergence of habitations with no source of drinking water negating the impact of the scheme.
- Financial achievements were inflated so much as to include advances, funds were diverted to other schemes or kept in Personal/Revenue Deposits. There was a persistent trend of over-reporting of physical achievements.
- Large funds were met irregularly out of the ARWSP funds, instead of from State Plan funds.
- Suspected mis-appropriation of funds/stores was reported by AGs on which Government failed to take corrective action.
- Mis-directed application of funds without adequate planning or scientific identification of water sources resulting in time and cost over runs.
- Schemes were abandoned mid-way or became inoperative after spending huge amounts.
- Inadequate maintenance rendered water sources defunct and non-operative.
- Material purchased in excess of requirement was lying idle in stores/not accounted for in books.
- Water Quality Testing Laboratories were ill-equipped with inadequate facilities (non-creation /non filling of posts) and trained manpower.
- Water Treatment Plants installed to control fluorosis, remove excess iron and salinity were non-functional resulting in continued supply of unsafe drinking water to the rural population.
- Gross under-utilisation of rigs.

Performance in Bihar: Utilisation of ARWSP Funds

(Rs. crore)

Year	Opening balance	Allocation by GOI	Release	Total availability of funds	Expenditure	Closing balance
1994-95	30.58	54.70	28.04	58.62	38.40	20.22
1995-96	20.22	70.99	35.50	55.72	22.74	32.98
1996-97	32.98	77.95	31.13	64.11	34.24	29.87
1997-98	29.87	93.80	00.00	29.87	08.67	21.20
1998-99	21.20	117.69	00.00	21.20	08.50	12.00
1999-00	12.00	93.80	00.00	12.00	00.00	—
Total		**508.93**			**112.55**	

22. Thus Bihar's loss of Rs 400-crore Central Assistance has resulted in a huge shortfall in physical coverage. Informal enquiries show that the State Government has not been able to finalise procedures for buying pipes for the last three years. The general feeling among field officers in Bihar is that the secretariat is largely disfunctional and there are long delays in financial approvals. Success in the implementation of schemes depends upon the capability of the delivery system to make optimum use of funds. The implementation of the programme in Bihar suffers from systemic deficiencies in terms of staff morale, policy formulation, financial procedures, method of implementation, poor monitoring and evaluation practices.

Water Quality

23. Water quality concerns clearly have serious implications for the supply of rural drinking water and are important determinants of public health. Water quality issues are gaining recognition as ground water depletion worsens. The level of natural contaminants such as fluoride and arsenic and chemical pollutants such as pesticides and insecticides is high and rising. Fluoride contamination affects 150 districts in 15 States and excess arsenic affects 8 districts of West Bengal. Fluoride levels are high in Andhra Pradesh, Gujarat, Haryana, Karnataka, Punjab, Rajasthan, Tamil Nadu and U.P. and iron levels are high in the North-Eastern and Eastern part of the country. Similarly salinity is high in Gujarat , Haryana, Karnataka, Punjab, Rajasthan and Tamil Nadu. The Quality affected habitations with excess fluoride/ arsenic/salinity/iron etc. based on 1% stratified sampling numbered about 1.54 lakh. The number of such habitations is increasing due to a variety of natural and man-made reasons, particularly due to unscientific and over exploitation of groundwater for different uses including agriculture. Although several studies and pilot programmes (sponsored by both the Government and various external funding agencies) are under way, proposed solutions have had mixed success. Technologies developed and tested to remove fluoride and iron have shown satisfactory results in a laboratory environment. The complexity, high cost and inconvenience of these technologies, however, have constrained their implementation and sustainability.

24. For instance, the Handpump Attached Defluoridation and Iron Removal plants have failed due to inappropriate technology, unsuited to community perceptions and community involvement. Desalination plants have been a costly failure mainly due to lapses at different levels such as poor planning and implementation, technology inappropriate to the rural setting and high cost of O&M. It has been found that a large proportion of treatment units installed in such habitations have become non-functional/non-working in a few years, particularly due to non-involvement of the communities. Out of 427, 150 and 9227 installed de-fluoridation, de-salination and iron removal plants, 350 (82%), 75 (50%) and 3485 (38%) respectively were reported to be non-working as on 31.9.98. These Sub Missions were mainly technology application experiments. . Alternative sources or a mix of both were being considered under the Sub Missions only from 1993.

25. Other quality related issues include biological contamination. Indiscriminate use of fertilizers and various agro-chemicals, along with un-scientifically designed latrines and improper disposal of domestic waste water, has further contributed to the deterioration of ground water. In Tamil Nadu, an immense growth in the tanning industry has resulted in polluted ground water far from the tanning sites. Percolating effluents reach water table after being discharged from the tanneries into dry river beds. Ground water contamination is known to spread up to 5 kms from the discharge site and as there are many scattered tanneries, the effect is wide spread. The tanning process uses many chemicals including heavy metals such as cadmium, arsenic and chromium which can be toxic to people in sufficient concentrations. Many community wells are contaminated as a result of tanning practices. At a wider level, community sources need to be protected from industrial pollution through enactment and enforcement of appropriate legal provisions. Communities have a role in monitoring polluters and lobbying for effective control measures. It has also been noticed that in many places, the water clarifying medium of filters have not been changed for decades which has reduced the efficiency of the filters to a great extent. If measures are not taken to control pollution, the consequences could be serious. All States must come out with a clear cut water quality surveillance policy. This would include monitoring of water quality both at source and supply points in a specified scientific pattern and sequence. Also there is need to know the quality of water at the user's end before consumption. This will indicate the real success of the programme and point out whether special health education efforts are necessary.

What needs to be done?

26. To sum up, the number of problem habitations has not declined over the years although around 90,000 habitations (out of a total number of 14 lakh habitations in the country) are claimed to be covered every year. The reason for re-emergence of uncovered villages are:-

- Fast depletion of groundwater level, which also increases incidence of quality problems of Arsenic and Fluoride .
- Sources go dry and defunct due to deforestation and lack of protection
- Heavy emphasis on new construction and little attention to maintenance
- Poor quality of construction
- Non-involvement of people in design as well as operations and maintenance
- No recharging efforts undertaken particularly due to lack of inter-departmental coordination
- Neglect of traditional water management strategies
- It is obvious that the past strategy of pumping money into this sector without looking at policy and institutional issues is not going to work. What we require is:-
- Restrictions on withdrawal of groundwater
- People's control over management of water supply schemes
- Water to be managed as an economic asset rather than a free commodity
- Increased attention towards recharge of groundwater through afforestation and watershed development programmes

The new policy parameters are discussed below.

I. Control on withdrawal of groundwater

27. Almost 90% of the drinking water needs are met from groundwater although only 5% of total groundwater extraction is needed for domestic water supply. Irrigation accounts for 90% of all groundwater extraction whereas industry takes the balance 5%.

Water Scarcity - how real ?

During the summer months of April - May 2000, the Maharashtra Government was supplying drinking water through tankers in about 3000 villages. Many of these had standing and well irrigated sugarcane crop. Thus groundwater that should have been a community resource was being monopolized by a few rich farmers, who also took advantage of easy availability of two other scarce resources -electric power and capital. The responsibility to provide drinking water was then transferred to the State.

28. The rapid development in groundwater based irrigation in many States has caused groundwater depletion, because of which the life of drinking water supply source becomes short. Highly subsidised irrigation electricity tariffs have led to an indiscriminate and disproportionate level of groundwater extraction. Although significant areas in States, such as Punjab, Haryana, Gujarat, Karnataka, Maharashtra, Rajasthan, Tamil Nadu and Uttar Pradesh (in all 144 districts in 10 States) have been declared 'dark' and 'grey' zones, there has been no let- up in the depletion of groundwater aquifers. Recently, it has been noticed that groundwater depletion has aggravated water quality problems due to excess fluoride, arsenic and brackishness, in certain areas, forcing the Public Health Engineering Departments to abandon low-cost hand pump based systems and undertake costly and complicated piped water supply schemes.

29. The need for regulating the extraction of groundwater arises from the following considerations:

- Protection of resource against over exploitation
- Protection of resource against quality degradation
- To ensure social equity and guarantee minimum provision to all sections of society

30. In view of the above and to regulate and develop groundwater resources in a scientific manner, a Model Bill was framed by the Central Government in 1970 and it was circulated to the States. Based on the experiences in the past two decades, the Bill was revised and circulated to States in 1992. The Bill was yet again revised and circulated to States in 1996.

31. The status of the legislation in various States was recently reviewed and it was seen that except for Maharashtra, implementation of the legislation was not satisfactory. A meeting of State Ministers held in August 1997 resolved against any strong legal measures of controlling groundwater discharge and cropping pattern. Instead they wanted to rely more on improving recharge

and arresting run-off through watershed programmes. Even such programmes are not very effective today for reasons already discussed.

II. Lack of People's Participation

32. The Engineering Departments in-charge of water supply had in the past concentrated their attention on new construction and there was hardly any people's participation in maintenance and operation of water supply schemes. Water is being perceived by the rural public as a social right to be provided free by the Government rather than as a scarce resource which must be managed locally as an economic asset in order to ensure its effective use. The present pattern is that systems are designed and executed by the Department and imposed on end-users, even when on paper these are transferred to the local Panchayats. Since the guiding principle for planning is that the Government will provide a minimum supply of 40 lpcd and make it free, there is no attempt to ascertain demand or to respond to demand for higher (or even lower) service levels. As such, planning is not done on the basis of demand and does not take into account user preferences (and willingness to pay) for different service levels nor future demand from increasing incomes and expectations. The experience has been that Panchayats are unwilling to take on the responsibility for operating and maintaining them. However, State Governments have no effective machinery at the village level to maintain such works. The system, therefore, requires a radical change. Rather than being supply-driven, it has to be demand- driven and has also take into account user preferences. A great deal of time should be spent with the communities so that user preferences are taken into account.

33. In order to address the problem of sustainability, the Government approved in March 1999 reforms to associate active participation of the community in rural water supply programme. The implementation of the new policy has already commenced. State Governments have identified 58 pilot districts to introduce reforms. The reform projects being submitted by the state Governmen6s incorporate institutionalisation of community participation through capital cost sharing and shouldering of full O&M responsibilities in the rural water supply programme. The experience gained during the implementation of these pilot projects would be effectively utilised while expanding the reform package to other districts in the second phase, so as to ensure a satisfactory and sustainable rural water supply programme in the whole country. For success of the proposed reform process, it would therefore be necessary that similar reforms are also adopted in other sectors such as increasing user-charges for irrigation and industry which also consume the available water resources.

SWAJAL PROJECT- Emphasis on Community Participation

The World Bank Aided SWAJAL Project in UP aims to:

- improve sustainability by adopting a demand responsive approach which introduces partial recovery of capital costs and full recovery of operation and maintenance costs;
- develop community participation so that communities play a major role in identifying planning, building and operating and maintaining their water supply and sanitation schemes ; and
- create institutional structures to facilitate decentralised decision making and in so doing to test an alternative to the supply driven approach to service delivery.

For O&M, mere handing over of assets to Panchayats may be counter productive unless the Panchayats/water user groups are adequately trained, and prepared to take on the O&M. The Project emphasises community involvement from the very beginning even in planning and design and in choice of technology. The village community is involved with the help of NGOs and Community Based Organisations (CBOs) from concept to commissioning and its O&M.

- Establish one NGO/CBO for 5-10 villages.
- Heavy emphasis on promoting off-farm activities through training.
- 10% capital cost and 100% O&M cost to be borne by the community
- A minimum of 22 months of preparatory activity for mobilising community support.
- Village committee decides technology and places order

NB : Evaluation of the project with regard to success of community participation is yet to be done. The State Government has been requested to do the evaluation before this model could be replicated else where.

III. Should water be supplied free?

34. The conditions under which people would be willing to maintain and operate water supply schemes are:-

- If they own the assets,
- If they have themselves installed the hand pump, or are being actively involved throughout,
- If they have been trained to do simple repairs,

- If they know that government will not maintain the asset,
- If they have sufficient funds for maintenance, and
- If they have to pay for O & M

35. Field research has shown that stakeholders are involved in O&M only when they pay for it; when they are certain that they will control the funds which are collected for O&M, and that water supply would be dependable. Except in a few projects, people are not made aware of the technology aspects or given the choice between different technologies and the right to know the details of expenditure on the project. Non-involvement of people in the design and execution of project leads to sub-standard quality of materials used, poor workmanship and insufficient maintenance. If these problems are not addressed, the life of a project falls drastically, which makes huge expenditure necessary later. On the other hand if the entire community is involved in decision-making it may even be advisable to transfer funds to the user committees or Panchayats, who may be asked to buy pipes and install handpumps on their own.

36. The cost sharing arrangement would ensure involvement of the users and the supporting agencies (thereby reducing the down time of installations and reducing O&M costs) like Panchayat Raj Institutions to own, operate and manage the drinking water supply programme. The arguments are generally advanced that people in the rural areas due to lower level of income cannot afford to share the cost involved in capital investment and the operation and maintenance of the systems. Various field level studies indicate that the O&M cost for hand pump per person per year works out to be Rs. 5.8 and Mini piped water supply schemes Rs. 15-17 per person per year, and is affordable.

37. It is, therefore, clear that O&M cost and replacement cost are within the reach of vast majority of the rural population. It is also possible for the beneficiaries to share at least a portion of the capital cost which would also inculcate a sense of ownership of the systems among the stakeholders. The experience of World Bank-assisted projects in Karnataka, Maharashtra and Uttar Pradesh shows that it is possible to institutionalise community based rural drinking water supply programme. If through adequate financial devolution package, the Panchayat Raj Institutions are empowered to generate resources as well as provided with sufficient loans and grants, they would be in a position to mobilise users contribution and also put in contribution from their own sources.

38. Implementation of a participatory demand- driven approach will ensure that the public obtain the level of service they desire and can afford to pay. Further, full cost recovery of operations and maintenance and replacement costs will ensure the financial viability and sustainability of the schemes. It would also ensure institutional sustainability, by supporting policy reform and institutional strengthening to assure that the devolution to the Panchayat Raj Institutions and the sector decentralisation both successfully reach their logical and intended conclusions.

IV. Recharge of groundwater through watershed development

39. The three problems in sustainable supply of drinking water viz., scarcity, brackishness and excess fluoride are found to be manifested mainly in the low rainfall and high potential evaporation areas of the country. Solutions to all these problems should therefore involve an integrated water management approach. Discrete and pipe oriented solutions of these problems would not be very effective. Water harvesting and conservation measures in a watershed as a natural physiographic unit with emphasis on direct or indirect artificial recharge of aquifers by utilising surplus run off water can lead to a simultaneous mitigation of all the three problems.

40. Soil and water conservation measures such as contour trenching, vegetative bunding and small check-dams can enhance soil moisture and recharge of groundwater, accelerating the rehabilitation of the micro-environment. Most funds for watershed development are spent by the Ministries of Agriculture and Rural Developments. They should rehabilitate lands in the upper catchment first for at least three reasons: first, the landless and the poor who depend on upper slopes can benefit; second, groundwater recharge begins at the earliest; and third, by the time the lower catchment is treated any debris and erosion running down from the upper catchment would have been minimized.

Traditional Technologies

41. Rain water harvesting not only supplements the domestic water supply but also acts as an anti-flood measure and recharges the ground water aquifers. Rain water has been harvested in India since antiquity. There are some evidences of advanced water harvesting systems from pre-historical times — systems like canals, tanks, embankments and wells. India can be broadly divided into 15 ecological regions. In hills and mountain regions, natural springs were often harvested, rain water harvesting from roof tops and spring water was often carried over long distances with the help of bamboo pipes. In arid and semi-arid region, ground water harvesting structures like wells and step-wells were built to tap ground water aquifers like "bavdis" of Rajasthan. Rain water harvesting from roof tops e.g. tanks of pali, used artificially

created catchments which drained water into an artificial well like kunds of Rajasthan. Special rain water harvesting structures which helped to keep sweat rain water mixing with saline ground water and thus providing a layer of potable water e.g. virdas of Kuchchh; horizontal wells similar to the "Qanats" of the Middle East to harvest seepage down hill slopes e.g. surangams of Kerala. With the fast declining ground water table due to indiscriminate ground water exploitation for agricultural use, it has became imperative to take curative as well as preventive measures to check further declining. Revival of traditional technologies for rain water harvesting can prove to be most economical, successful and long lasting and therefore should receive emphasis by all States, those particularly in the water scarcity areas.

V. Need for alternate planning & the new Water Policy 1999

42. A number of steps need to be taken urgently in order to manage groundwater in a more scientific manner, especially in dark and grey zones. Firstly, there must be a Central legislation against subsidies on electricity tariffs for irrigation. One may mention here that although the World Bank had approved a drinking water project in principle for Punjab, further processing was withheld by the World Bank because of the Punjab Government's policy of providing free electricity and power for irrigation sector. Secondly, the Model Bill framed by the Centre and circulated to the States in 1996 should be adopted by the States and implemented seriously. Thirdly, user groups should be formed on the lines of Joint Forest Management Groups, which should do groundwater monitoring and ensure that it is managed as common property resource rather than allow it to be over-exploited as an open access resource.

43. It should be noted that the ongoing Accelerated Rural Water Supply Programme (ARWSP) has been modified w.e.f. 1.4.99, incorporating most of the suggestions made above. In consonance with the adoption of a need-based approach, it has been found desirable to give appropriate weights (10%) for NC/PC habitations in the ratio of 2:1 based on data received from States as on 1.4.98. Two more new criteria viz., "overall water resources availability" and " Number of quality problem habitations" have also been included. The former is reflected by ratio of un-irrigated to irrigated area and will take care of special needs of area with overall water scarcity on account of poor rainfall, low groundwater potential. The latter reflects concern for adoption of need based approach. In this criterion, differential weights have been given (based on severity of the problem) to fluoride (40%), arsenic (40 %), brakishness (15%) and iron (5%). The old criterion of rural population and special category areas (HADP/DPAP/DDP/Special Category Hill States) have been found relevant and therefore retained. Limit of ARWSP fund utilisation for O&M has been raised from 10% to 15%

44. The new Policy initiated in April, 1999 has asked the States to implement "Sector Reform" measures and a demand-driven approach based on empowerment of village water and sanitation committees, 10% of capital cost sharing and 100% sharing of O&M cost by users etc. 20% of the Central Government funds would be reserved for States which adopt these measures.

45. The new strategy thus rightly relies heavily on the use of Central/State funding as a critical incentive to drive the sector reform process at both State and local government levels. As such, it is important that funding conditionality for disbursement of Central funds to State administrations, and from State administrations to Panchayat Raj Institutions and/or local administrations, be explicitly defined both in terms of conditions which must be met and activities for which funding can be applied. However, the impression gathered during Working Group discussions with the States (held between June and September 1999) was that the impact of the programme was yet to be seen. The Ministry has also not identified States which have introduced or have promised to introduce sector reforms. It is likely, therefore, that the 20% funds —rather than induce reforms —would again be distributed to the States on the basis of the fixed criterion with no emphasis on performance. .It must be recognised that sector reforms such as improving capacity of the local people to manage water resources and to make them pay for the supply are politically or administratively not popular decisions. In the absence of requisite political and administrative will, it is likely that unpopular measures may not be implemented. The modalities of collecting water charges and the use of those collections hshould also be thought out. So far the Panchayats have relied too heavily on Central and State funding leading almost to spoon-feeding and weak implementation capacity. For their capacity building they too should get into the mould of collecting user charges, which the panchayats so far avoided.

Rural Sanitation

46. Though the majority of Indian population , i.e. 62.87 crore (1991 census) live in rural areas, their access to a minimum level of sanitation is very low (approx. 20% coverage). Such strategies are required to be adopted that would help increase the coverage and ensure better O & M . Some of the issues that have stood in the way of effective implementation of programmes are :-

- very low priority given by the State Governments and the people at large,

- lower emphasis on IEC,
- promotion of a single model i.e., twin-pit pour-flush latrines which are costly,
- heavy reliance on subsidy and lack of motivation efforts,
- Poor disposal of waste water from water points creating un-hygienic conditions,
- Sanitation services do not correspond to the local culture and habits,
- Users of a sewerage facility are unwilling to pay for the cost of sewerage.
- scarcity of water.
- lack of community participation and NGO/Private Sector involvement.

47. Allocation of Plan funds during the Ninth Plan towards Central Subsidy Component is quite meagre i.e. only Rs.500 crore against a huge requirement of around Rs.12,000 crore. The physical coverage which was estimated to be around 17 % of rural population at the beginning of the Ninth Plan has gone up only by less than 3% during the first two years. Field studies show poor uitlisation of existing sanitary latrines, inter alia due to lack of awareness, scarcity of water, poor construction standard, emphasis on standardised designs without attention to local specificities and general absence of involvement on the part of the beneficiaries. Indira Awas Yojana also has a component of latrine, but the facility is often used as an extra room. A number of field studies, village level studies, evaluation reports and donor agency status papers have drawn attention to the serious problems in the programme design and implementation. There is some evidence that over-reliance on a traditional supply-driven subsidy-oriented Government programme is hampering private initiative in rural sanitation . Conversely, there is very strong evidence that in States where Centrally Sponsored Rural Sanitation Programme (CRSP) has not picked up to any significant extent, the gap has been amply filled by private initiative. An evaluation (1998) by British Aid Agency (DFID) did not find any evidence that the high level of subsidies being offered under current State Government policy was helping to promote uptake of latrines amongst the poor. Indeed, it appeared to reinforce the tendency to promote high cost options. It was thus felt that the subsidy be abolished or at the very least be offered and private initiative be provided a fillip. As per an ORG Study, in M.P, 20% of house holds owning latrines did not use the facility and the main reason for non-use was quoted as lack of adequate water.

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48. Keeping in view the lacunae mentioned above, the CRSP has been restructured w.e.f. 1.4.99. The restructured programme proposes to move away from the principle of State-wise allocations primarily based on poverty criteria to a demand driven approach and the States would be required to formulate "Total Sanitation Compaign" (TSC) in select districts in order to claim Central assistance. To allow time for proper grounding of the new approach, it has been decided also to continue with the existing "allocation based" programme. The latter would however be progressively phased out within a couple of years and TSCs would be supported both by the Central and the State Governments as per the funding pattern. The physical implementation would have to be oriented towards felt-need using a "vertical up-gradations" concept, in which beneficiaries, individual or institutions get to choose from a menu of options that allow for subsequent upgradation depending upon their requirement and financial position. During the Working Group meetings for Annual Plan 1999-2000, some of the States were not found supportive of the idea of no subsidy/low subsidy and single pit pour flush latrines. As this new approach is yet to take off in most of the States, its impact could be seen only after some time. The main features of the restructured Rural Sanitation programme are as under:

- Shift from high subsidy to low-subsidy regime. - from Rs.2000/- to Rs.500/- per latrine (inclusive of both Central subsidy as well as State subsidy)
- Greater household involvement.
- Technology options as per choice of beneficiaries.
- Stress on software programme (IEC).
- Emphasis on School Sanitation.
- Tie- up with various Rural Development programmes.
- Involvement of NGOs/VOs and local groups.
- Seek institutional finance (NABARD etc).

49. The coverage of rural population with sanitation facility at the beginning of the Ninth Plan was as low as 16% and only about 2 - 3% additional rural population is expected to have been covered during first three years of the Plan under the Governments' rural sanitation programme . The re-structured Centrally Sponsored Rural Sanitation Programme, which has been made effective from 1.4.99, is yet to pick up. As such, it may not be possible to achieve the envisaged target of 35% rural population coverage (cumulative) by the end of the Ninth Plan.

Sanitation – Study Reports of RGNDWM .

According to studies got conducted by Rajiv Gandhi National Drinking Water Mission in a few States, more than 90% households in a Bihar sample survey were using open fields and banks of rivers for defecation and very few families have their own toilets. Majority of the villagers were unaware of concept of sanitation and importance of it because of poverty and illiteracy. In Punjab, 42% of rural household respondents in Hoshiarpur and Bhatinda districts had their own private latrines, 1% used community latrines and 57% went for open defecation. In Haryana 34% of households surveyed in the districts of Panipat and Hissar had private latrines, 1% used community latrines and 65% went for open defecation. In Hissar 18% latrines were constructed with Government subsidy and 19% with private funds. In Panipat, 16% latrines were constructed with Government subsidy while 15% with private funds. In Maharashtra, sample survey revealed 19% households had sanitary latrine facilities of which 16% were constructed under CRSP and 3% with private efforts. In Karnataka only 8% surveyed households had latrine facilities of which 7% were constructed under CRSP and 1% with own efforts.

In MP, as per an ORG study, households covered with sanitary latrines were 21% of which 63 % used latrines regularly and about 20% of house holds who owned latrines did not use the facility . A large section of respondents who were owners but non-users (93%) stated that lack of adequate water prevented them from using the facility. In UP, 16% of surveyed households were covered by the sanitary latrine facility, of which 39% households used them regularly and a large proportion (45%) of the housholds possessing latrines never used the facility.

Chapter 21

LABOUR AND EMPLOYMENT SECTOR

Labour and Employment Sector addresses the conditions under which economically active population, i.e. labour force, exchanges its services with the economic production system. Such conditions vary across different segments of labour force - informal sector workers, rural workers, construction workers and workers in organised sector. Hence, the requirements of labour welfare services, support for productivity improvement, provision of social security and job placement services also vary across the category of workers.

2. Labour and employment sector of Plan attempts to increase and protect income of labour (i) through improvement in productivity, (ii) by enabling the worker to get a fair share in income of the employing enterprise, and (iii) by reducing the risk to workers' income that is associated with fluctuations in economy, and (iv) a better flow of information in the labour markets. The initiatives taken through labour sector plan that serve these objectives are given in Table-1.

3. The Ninth Five Year Plan Priority Areas:

- Review labour laws and harmonise them with the new economic and social setting;
- Expand the provision of social security to workers through efforts to create viable, location-specific and a self-financing system;
- Improvement in conditions of workers facing highly adverse work situations -elimination of evils of child labour and bonded labour:
- Modernization of employment exchanges and job placement services
- Strengthening of accreditation facilities for vocational training institutes to facilitate investment by private sector in vocational training
- Extending the ambit of the existing vocational training system to include training
- in skills required in services sectors
- Coordination of vocational training imparted by various departments of Government in order to avoid overlapping and to ensure conformity with each other.

These priorities were to be addressed by formulating relevant policies and legislation, by expanding activities of self-financing public institutions and investments through various plan schemes.

Plan Outlay & Its Utilisation

4. Ninth Five Year Plan Outlay for this sector was Rs.792 crore for the Central Plan under Ministry of Labour and Rs.286 crores in the States' Plans.

5. Cumulative utilization in Central Plan during first three years is of the order of 38% of the total outlay of the Ninth Plan. (Annexure 1) Employment and Training, a major scheme of Ministry of Labour, has utilized 55% of the total Ninth Plan outlay during the first three years mainly for revamping of training and accreditation system and setting up of new vocational training centers for the handicapped people. For elimination of child labour, another

Table-1 : Labour and Employment Sector Plan activities to benefit labour

Benefit to labour From	Plan initiative in Labour Sector	Activity supported by Labour Sector Plan
Productivity improvement	**Skill development**	**Training and retraining**
Fair share in enterprise income	Relationship between worker and the enterprise	1. Labour laws administration 2. Conditions of the marginalised worker
Reducing risk associated with worker income	Social security to worker in organised and unorganised sector	1. Insurance for job loss accident and illness 2. Better working conditions
Information flow in Labour Market	Job placement and vocational guidance	1. Employment services 2. Labour statistics and research.

major scheme in Central Plan, the expenditure in first three years of the Ninth Plan stands at 30% of the Plan allocation – under the National Child Labour Project which now covers 1.9 lakh children in special schools for working children. In respect of scheme of rehabilitation of bonded labour the expenditure in the first three years is 50% of the total outlay of Ninth Plan.

6. In Central Plan, the scheme of Central Board of Workers Education which educates the workers to help adopt cost effectiveness by enhancing productivity has utilized 43% of the total outlay in first three years of the plan. The scheme of industrial safety is administered through Director General Factory Advice Service and Labour Institute (DG FASLI) (the organization works for the safety, health and welfare of the workers in factories, ports/docks) under various schemes of technical innovation, organizations of workshop/seminars. The organisation has been able to utilize 34% of the total outlay in the first three years of the Plan. Various schemes under Industrial Relations have incurred expenditure to the extent of 27% of the total outlay. The physical progress and status of important schemes/programmes are discussed in the relevant sections.

7. In the State Plans, States where actual expenditure exceeded the outlay in the first year of the Ninth Plan are Andhra Pradesh, Gujarat, Tamil Nadu, Delhi, and Pondicherry. The financial progress was not so good in the first year of Ninth Plan in Bihar, Gujarat, J&K, Kerala, Madhya Pradesh, Maharashtra, Nagaland, Rajasthan and West Bengal. (Annexure 2).

Productivity improvement through skill development-vocational training:

8. The primary purpose of vocational training is to prepare individuals especially the youth in the age group of 15-25 years for the world of work and make them employable for a broad group of occupations. About 2.1 million students are not able to pursue education beyond the class X stage. A vocational training set-up that can meet the needs of these is required to prepare them. For this purpose, Ninth Plan envisaged:

- Formulation of a comprehensive approach covering all types of trades used in production of goods and services
- Extending the government training set-up beyond engineering trades to cover skills required in services producing sectors
- Increasing job relevance of vocational training by:
  - Strengthening linkage of industry and government institutes, and
  - Increasing coverage of establishments by the Apprenticeship Act.
- Encouraging private initiatives in providing vocational training services in Northern States
- Government to reduce its role in delivery of training services and strengthen its role in evaluation and accreditation of training institutes and quality of training
- Publicise costs of, and benefits from, vocational skills, by collection and dissemination of information on career development of vocational training course pass-outs
- In North Eastern States, growth of white-collar jobs in Government having ceased, vocational training facilities for youth be increased
- Strengthen linkage between vocational training and vocational education

9. Two major resources for such training are the 4000 Industrial Training Institutes (ITIs) and the 25000 industrial establishments that accept Apprentice Training. State wise details of existing infrastructure in terms of number of ITI's along with seating capacity and the seats under apprenticeship training are given at Annexure 3 and 4

10. Given the low share of private ITIs, State Governments in Northern States will have to encourage private ITIs by pursuing strategies similar to those followed by the Southern States.

11. Apprentices in establishments add up to 1.7 lakh, a number which is very low. States of M.P., U.P., Bihar, Haryana have located very few seats in establishments relative to the number of youth. More categories of establishments which can induct apprentices need to identified under the Apprenticeship Act.

Restructuring Vocational Training System

12. While Ministry of Labour's National Vocational Training System (NVTS) is the oldest training set-up (started in early fifties), a number of other departments have also started training activities for their respective sectors e.g., small industry, Khadi & Village Industries Commission (KVIC), handlooms, tourism (hotel management & catering), electronics, medical technicians, agriculture and rural development.

13. Ministry of Labour is carrying out studies to restructure the National Vocational Training System.

14. Under the present form of NVTS, some of the issues which require immediate attention relate to:

- Over-emphasis on producing training services by governments

- Weak regulatory role of Governments in ensuring training quality
- Mismatch between available trained manpower vis-à-vis. the requirement
- Poor flexibility of training programmes.
- Inadequate coverage of service sector;
- Non-coverage of unorganized sector;
- Inadequate involvement of industry in the training programmes.
- Lack of coordination/cooperation amongst training providers.

15. Consultations were held by Ministry of Labour with all the stakeholders(in all State Directorates, 21 Central Government Ministries/Departments including Planning Commission, Non-Government Organisations (NGOs), Trade Unions, Federation of Indian Chamber of Commerce & Industry (FICCI) and Confederation of Indian Industries (CII). Ministry of Labour envisages:

- An Apex level Statutory Body, namely, All India Council for Vocational Training [(AICVT) by merging National Council for Vocational Training (NCVT) and Central Apprenticeship Council (CAC)]; also, corresponding bodies at State level responsible for different types of vocational training. This will:
  - Assign a due role to State Governments in accreditation of Institutes and award of certificates to candidates
  - Avoid overlapping of functions amongst different vocational training providers.

A project is under preparation in the Union Ministry of Labour on these lines. However, it is still at preliminary stage and will require 6 to 7 years to bring into effect the requisite legislative, institutional, inter-departmental and state level changes in Government's role in vocational training.. Though the task is complex certain immediate effective steps are necessary.

Industry-Institute Interaction

16. As a part of the effort to strengthen interaction between industry and State run ITIs, State level steering committees comprising industry and government representatives have been formed in Punjab, Haryana, Himachal Pradesh., J & K and Chandigarh.

17. The following 5 Government ITIs are to be managed by an Industry Management Committee (IMC) chaired by industry:

ITIs handed over/to be handed over to local industry associations by State Governments

State	Training Institute
Punjab	Ludhiana
Haryana	Gurgaon
Jammu & Kashmir	Jammu
Himachal Pradesh	Solan
U.T. of Chandigarh	Chandigarh
Tamil Nadu	Chennai

Retraining

18. Central Government, and some State Governments too, have formulated a scheme to enable restructuring of work force in public enterprises by offering a scale of benefits to those seeking voluntary retirement.

19. Under a Central Plan scheme funded out of National Renewal Fund (NRF), retraining is provided to workers who voluntarily retire or are retrenched. Only about 3000 workers could be trained in 1998-99 – a small number in comparison with the overall dimension of the problem of restructuring.

20. Government of Gujarat has followed another approach. Children of retired workers of state-owned enterprises are trained in new emerging disciplines. This approach to improve family income prospects of retrenched employees needs to be expanded and tried out in other States.

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Labour Laws & Administration

21. The labour laws encompass areas like industrial disputes, payment of wages and minimum wages, security measures like Workmen's compensation Act, Equal Remuneration Act, Maternity Benefit Act, Child Labour Act, Factories Act, Mines Act, Contract Labour Act, Welfare fund related legislation etc. The basic objectives of all these laws are to create a safe work environment, provide a mechanism and procedure to settle industrial disputes and ensure payment of minimum wages, payment of provident fund, gratuity , bonus etc. besides other statutory benefits to the worker.

22. In the context of socio economic changes over time and the reforms sweeping the country, it is imperative to bring about corresponding changes in the labour laws. While doing so, steps need to be taken to introduce flexibility in the labour market.

23. Ninth Plan envisaged action to:

(a) identify laws which are no longer needed and to repeal them;

(b) identify laws which are in harmony with the climate of economic liberalisation and hence need no change;

(c) revise the rules, regulations, orders, notifications etc.

24. Certain inter departmental-exercises between Labour and Law departments have been envisaged in pursuant of the above proposals but they could not proceed far. However, some State Governments took initiatives, primarily to attract investors. Central Government (Ministry of Labour) has focussed its efforts on a few laws. (Box 1)

25. The Government set up a Bipartite Committee to formulate specific proposals for amending the Industrial Dispute Act, 1947(IDA). The Ministry of Labour has received comments from the representatives of Employers and Trade Unions on the various sections of IDA. Draft amendment proposals have been formulated and are under consideration of the Government. A Group of Ministers constituted for the purpose is looking into the matter at present.

26. The Government is reviewing the Contract Labour Regulation & Abolition Act (1972) in the light of experience gathered in administering it in the past two decades and of judgment of Courts particularly the Supreme Court in the cases of Gujarat State electricity Board and Air India). Proposals have been framed to make the Act more stringent and labour friendly. Suggestions to exempt certain categories of establishments from the purview of the Act or outsource certain activities in the context of ongoing programme of economic liberalisation have also been received from various Trade Unions, employers organisations like Standing Committee of Public Enterprises (SCOPE), FICCI and CII. The Government intends to draft a new legislation. A Group of Ministers is looking into the proposal at present.

27. During first three years of the Ninth Plan, certain changes in the Labour Laws have been made.(Box 1)

28. Central Government has set up Second National Commission on Labour on 15.10.1999. The Commission will suggest rationalistion of the existing laws relating to labour in the organised sector and also an umbrella legislation for ensuring a minimum level of protection to the workers in the unorganised sector. The commission would submit its report within 2 years i.e. by 15th October, 2001. (Box 2.)

Central Board for Workers Education:

29. Central Board for Workers Education, a tripartite body, seeks to create awareness among the working class about their rights and obligations for their effective participation in socio-economic development of the country. Focus is on rural workers. The Board has been conducting a number of programmes including rural awareness programme, literacy classes, orientation courses for rural educators, leadership development programme for rural workers, etc.(Annexure 5)

Legislation for unorganised workers:

30. Unorganised workers exist mainly in the following kinds of industries and occupations.

a) Agriculture
b) Construction

Box 1

Changes in Labour Laws

1. Workmen's Compensation Act, 1923 extended to cooks employed in hotels and specified restaurants.
2. Central Rules notified under the legislation for building and construction workers.
3. Employee's Provident Funds and Miscellaneous Provisions Act, 1952 amended to remove the employing establishment infancy period.
4. Rule 256 (2) (v) (a) of the Contract Labour (Regulation and Abolition) Central Rules, 1971 amended. delegating powers to Deputy Labour Commissioners (Central) instead of the Chief Labour Commissioner (Central).
5. Amendment proposals in Minimum Wages Act, 1948 are under active consideration of the Government
6. Amendments to the Trade Unions Act, 1926 to ensure organised growth of trade unions and reduce multiplicity of trade unions.
7. Amendments to various sections of the Payment of Wages Act 1936 are under consideration of the Government.
8. Comments obtained from employers and Trade Unions on 'The Participation of Workers in Management Bill, 1990' and amendment notices on them tabled.
9. Amendments to Industrial Disputes Act are under consideration of the Government.
10. A new legislation on contract labour system being considered.

Box 2

Second National Commission on Labour

Terms of reference

(a) Suggest rationalization of existing laws relating to labour in the organised sector

(b) Suggest an umbrella legislation for ensuring a minimum level of protection to the workers in the un-organised sector.

Points to be taken in to account in framing the recommendations

(1) Follow-up implications of the recommendations made by the commission set up in May 1998 for review of various administrative laws governing industry

(2) i) The emerging economic environment involving rapid technological changes, requiring response in terms of change in methods, timings and conditions of work in industry, trade and services

ii) globalization of economy requiring liberalisation of trade and industry

iii) emphasis on international competitiveness and the need for bringing existing laws in tune with the future labour market needs and demands

(3) The minimum level of labour protection and welfare measures and basic institutional framework for ensuring them in a manner which in conducive to a flexible labour market and adjustments necessary for furthering technological change and economic growth

(4) Improving the effectiveness of measures relating to social security, occupational health and safety minimum wages and linkages of wages with productivity and in particular safeguard facilities required for women and handicapped persons in employment.

c) Tiny manufacturing industries

d) Trade, transport, financial community and personal services utilising contract labour

31. For agricultural workers, some initiatives have been taken by the State Governments (Annexure 11). However, the legislation by Union Government is still under deliberation with the State Governments.

32. Two enactments for construction workers came on the statute book with .effect from 20th August 1996; they are:

a) Building and other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996; and

b) Building and Other Construction Workers Welfare Cess Act, 1996.

33. These legislations provide for regulation of employment and conditions of service of construction workers and safety, health and welfare measures for them. There is provision for creation of a welfare fund at the State level financed by contributions at the rate of 1 to 2 per cent of construction cost and by non-mandatory grants/ loans by Central Government. The fund is to be used for financial assistance to the families of beneficiaries in case of accident, old age pension, housing loan and for certain other family benefits.

34. In November 1998, Central Government notified rules under Construction Workers (Conditions of Services) Act. So far only Kerala has constituted a Board for construction workers' welfare. Some other States are in the process of framing of rules and constituting the welfare fund and notifying the authorities to implement the Act.

35. Central Government is monitoring implementation of the law for construction workers by State Governments; the States have the responsibility to implement it.

36. Workers in tiny industries are mainly home-based workers. The number of such workers will increase even within the organised sector as larger organisations specialise into core activities only within the premises of the main establishment. Activities like beedi rolling, garment stitching, making embroidery, agarbatthi- making and a variety of food items are the main home-based production activities.

37. A *policy on home-based workers* is being evolved by the Central Governement.

38. As distinct from regular workers of an establishment, a much larger input of labour services is utilized by the organised sector through contractors who provide skill- specific and specialised manpower. A new legislation on contract labour is being evolved by Central government (described in para 26).

39. A uniform and more comprehensive approach to unorganised workers will be possible after Government receives the recommendations of Second National Commission on Labour which is studying this question among other things (Box 2).

Labour Welfare

40. The situation of surplus labour and workers in unorganised segment of the economy gives rise to unhealthy social practices like bonded labour, child labour and workers in certain kinds of occupations facing adverse working conditions:

National Child Labour Project (NCLP)

41. Under the National Child Labour Project, 76 projects have been set up initially in different regions to rehabilitate child labour. The number of projects will be expanded to 100 by the end of Ninth Plan. During 1999-2000, 93 National Child Labour Projects have been sanctioned in child labour endemic states for rehabilitation of 2.0 lakh children who were removed from work.

42. National Child Labour Project now has an annual expenditure around Rs.40 crore. The special schools for working children are being run through NGOs and their number is close to 2887. There is need to set up a concurrent evaluation mechanism as a part of this project; some independent evaluation studies at the district level should also be got done well before the close of the Ninth Plan so that inputs are available for restructuring this programme in the Tenth Plan period.

43. It would be better to involve the State Governments in implementation of the National Child Labour Scheme in some way or the other, at least for monitoring. Some fora at the State Government level may be formed to monitor the working of district child labour societies which have been created under the National Child Labour Project.

44. State wise coverage under NCLP is as given in Annexure 6. As can be seen, there exists severe regional imbalance in sanctioning of schools. Sanctioned coverage in terms of number of schools in States like Bihar and Madhya Pradesh is too less compared to their share in total child labour, as per 1991 census. The States in which the National Child Labour Project has made considerable progress are Andhra Pradesh, Tamil Nadu and Orissa. In other States, some progress has been possible through the National Project but much remains to be done given the dimension of the problem. The States will have to formulate their own schemes for rehabilitation of working children; national project concentrates only upon the child labour endemic locations/districts.

Bonded Labour

45. In 1978 Ministry of Labour formulated a Centrally Sponsored Plan scheme (CSS) for rehabilitation of bonded labour. Under the Act on Bonded Labour, the responsibility for identification, release and rehabilitation of bonded labourers who are set free rests entirely with the State Governments. The CSS supplements the State Governments efforts. Central and State Governments equally share the expenditure on this on 50:50 basis.

46. State-wise distribution of bonded labour released and rehabilitated is given in Annexure 7. There are around 30,000 such released and not rehabilitated bonded labourers which is a cause of concern. Ministry of Labour is addressing this problem through the implementing agency, the State administration.

47. Central Ministry is now starting its own monitoring mechanism and is also going to get the programme evaluated concurrently.

48. Under the scheme a bonded labour on release is paid immediately Rs.1,000/- as subsistence allowance and he/she is rehabilitated as per situation with a rehabilitation package of Rs.10, 000. Keeping in view of the demands by State Governments, the scheme has now been modified by raising the rehabilitation package from existing Rs.10, 000 to Rs.20, 000 per bonded labour released; and provision has been made for conducting survey for identification of bonded labour, creation of awareness, and conducting evaluation studies. The modified scheme would be implemented in the remaining period of the Ninth Plan and a review will be done before the start of Tenth Plan.

Social Security

49. The main social security laws enacted centrally are the following:

(i) The Workmen's Compensation Act, 1923

(ii) The Employees State Insurance Act, 1948

(iii) The Employees' provident Funds and Miscellaneous Provisions Act, 1952

(iv) The Maternity Benefit Act, 1961

(v) The Payment of Gratuity Act, 1972

50. Employees State Insurance (ESI) and Employees Provident Fund (EPF) are self-financed social security schemes managed by public –owned institutions. However, they cover only about 20 per cent of total employed labour force. A Task Force on Social Security

has submitted recommendations to Ministry of Labour to expand the reach of these services and to pool together the organizational strengths of Employee State Insurance (ESI) and Employees Provident Fund Organisation (EPFO)

51. Coverage under ESI scheme increased and 5.88 million more beneficiaries were covered during the three-year period March 1996 to March 1999 (**Annexure-8**). The coverage of establishments similarly increased by 37,000 in the period March 1996 to January 2000.

52. The coverage of establishments and members under the Employees Provident Fund and Miscellaneous Provision Act,.1952, has increased by 4.6 million subscribers during March 1996 to December 1999. The number of establishments covered has increased by 66,000 during this period (Annexure 9).

Social Security to Unorganised Workers

53. Welfare funds financed from own resources generated through cess on commodity sales are in operation for the workers engaged in beedi making, mines(iron ore, limestone, dolamite, manganese and chrome ore) and for the workers in cine industry. These funds are able to raise about Rs.70 crore resource in a year now (Annexure-10).

54. Amongst these, the Beedi Workers Welfare Fund has the largest number of beneficiaries and the range of services cover health services and housing loans. The number of beneficiaries of beedi workers fund has now reached 3 million.

55. For workers of poor families not covered under any insurance scheme or any law/statute, the Central Government has introduced a scheme of Personal Accident Insurance Social Security Scheme. It is applicable to any person in the age group of 18-55 who is earning a member of poor families and meets with fatal accidents. The quantum of benefits is Rs.3, 000/- . The scheme is implemented through General Insurance Corporation (G.I.C).

State Government Initiatives for Social Security of workers

56. Several State Governments have addressed the problems of high risk faced by unorganised workers by creating special institutions and by operating special schemes. Some of the important achievements may be seen in Annexure 11.

57. However the initiatives are confined to the States of Kerala, Tamil Nadu, Gujarat, West Bengal and Madhya Pradesh. No significant effort ,or very little effort, has been made in other States that are the principal destinations of migrant labour. A Construction Workers' Welfare Act exists but States like Delhi have not created the relevant fora for providing welfare and insurance services to construction workers although there is a large potential for raising resources from the construction activity that goes on. The situation in many other Northern States is also similar.

Agricultural Workers' Social Security

58. An inter-State consensus on preparing a legislative initiative for welfare of agricultural workers has not been possible so far. The States that are destination of migrant agricultural workers see the problem in a different perspective from others who originate the migrants. The Union Ministry of Labour will have to consider a new approach to this problem. If agriculture and construction workers remain outside any institutional mechanism of social security, then three-fourths of the work force is denied the services that are available to other categories of workers.

Employment Information and Job Placement Services

59. The National Employment Service has t;o be reoriented in the context of newly emerging market scenario. The Employment Services under Central and States Labour Departments have to enhance their role in compilation and dissemination of comprehensive labour market information.

60. The 1985-90 scheme for computer use at employment exchanges benefited only a few States on a sustained basis by way of change of work practices.

61. A new Central Plan — pilot scheme for modernisation and computerisation of about ten employment exchanges under the control of States — has been taken up. The emphasis is to collect (i) changes in employment situation in local establishments through an 'online' computer system, and (ii) public display of registered persons nominated for public funded jobs for larger transparency of the placement functions.

62. During the Ninth plan some States have made tremendous progress towards computerisation of Employment Exchanges. States of Gujarat, Maharashtra, Pondicherry, Tamil Nadu and Andhra Pradesh have even put the exchanges on computer-linked network for efficient exchange of information on placement services.

63. Employment exchange services are provided by Government free of cost in keeping with an ILO convention while several private placement agencies charge for services and cater to needs of job-seekers and employers.

Government employment services need resources for rendering quality service. Charging of some fees to generate internal resources merits consideration.

64. Steps are also necessary to accord some quality rating of private job placement agencies by a professional body to avoid deception of job-seekers.

State Government Initiatives in Job Placement Services

65. So far the employment exchanges run by the State Governments have been primarily engaged in registration and placement services to the unemployed. As the induction into Government/Public Sector is dwindling, the State Governments make alternative arrangements to help the unemployed in making use of the infrastructure available. In this direction, some of the States have initiated good steps:

66. Gujarat has utilised infrastructure of employment exchanges for holding Rozgar Mela; in the Mela, employment exchanges organise meetings of the employer (mostly from the private sector) with suitable candidates on the live register. The candidates are also reimbursed travel expenses within the State for attending the interview.

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67. The State Government also has taken up an innovative scheme "Deen Dayal Rozgar Yojana" to generate self-employment among people living in backward areas. This is done through imparting training for skill formation.

Restructuring Public Delivered Employment Services

68. Employment Exchanges have two kinds of functions; (i) placement of candidate against vacancies notified to them under Compulsory Notification of Vacancies Act, 1959, and (ii) gathering employment information from establishments that are under the jurisdiction of the Exchange so as to feed the input into Employment Market Information (EMI) system on changes in employment situation. The former function has now diminished tremendously with the reduction in recruitment by the Public Sector. (Annexure-12)

69. The infrastructure at the employment exchanges can be utilized to collect regular and frequent information on changes in the employment conditions. There is a tremendous lack of objective information in this respect from other sources like the Annual Survey of Industries or National Sample Surveys on employment There is need to reshape and strengthen EMI programme and expand its coverage of establishments.

70. The Ninth Plan envisaged placing employment exchanges under local autonomous bodies but no progress has been made towards it.

71. Compulsory Notification of Vacancies Act, 1959 which provides a basis for employment exchanges' job placement work has largely outlived its utility. Establishments should not be mandated to ask Exchanges to nominate candidates now. Repeal and rewriting of the Act is necessary.

Developments in Labour Market

72. At the time of formulation of Ninth Plan during 1997-98, data on employment and unemployment was available up to the year 1993-94 and that data formed the basis for projections for 1996-97 — base year of the Plan. However, now the information is available from annual survey of National Sample Survey Organisation (NSSO). Data from annual surveys have become available up to the year 1998.

73. Annexure 13 reflects the unemployment situation as revealed by Quinquennial and Annual rounds of NSSO. Unemployment rates for male and female in both rural and urban areas have declined between 1987 and 1997. However, an increase in those rates was reported for 1994-95 and 1995-96 but it was lower than the what was recorded in 1993-94.

Improvement in Real Wages

74. Changes in real wages may be taken as an indicator of change in Quality of Employment. Trends available from 1991-92 to 1998-99 reveal that real wages for unskilled agricultural labour at the all-India level increased during the period. Annual percentage change in real wages for major states is at Annexure 14.1. Change in real wages in pre-reforms (1981-91) period was 4.7 per cent and in the post reform period (1991-99) 2.0 per cent (Annexure 14.2). States of Gujarat, Karnataka, Kerala and Tamil Nadu recorded higher growth in real wages in post-reform period than in the earlier period. Other States had a positive but lower growth in real wages in recent years.

75. Unorganised sector of employment is expanding with a labour force growth at 1.5 per cent and the organised sector with a growth of less than 1 per cent. This has been primarily due to a sharp reduction in employment growth rate in the public sector as can be seen from Annexure 15. Growth of private sector jobs has accelerated after 1994 and has been much higher than public sector in the recent years.

76. Thus, the labour market in recent years is characterised by decreased probability of work availability

in the public sector; and if work is found in organised sector it is more likely to be in the private sector.

Labour Statistics and Research

77. At present conceptually robust statistics are available on employment situation but suffers from a time lag of 3 years to 5 years. During the phase of restructuring of economy it is necessary to have some key indicators of labour statistics which are available (i) without a time lag of more than a few months and (ii) these indicators be representative of all segments of labour force. For this purpose, it is suggested that Ministry of Labour should lead the Central Government efforts to reorient the working of Labour Bureau, Directorate-General of Information & Training DGE&T (Employment Market Information System), National Sample Survey Organisation and Registrar General of India to improve and speed up the flow of information on working population,. A study Group on Labour Statistics (chaired by Prof. L.K. Deshpande) made recommendations on this to Ministry of Labour in 1999. (Box 3)

Box 3

Report of Study Group on Labour Statistics

Select Recommendations

i) Registrar-General to allow release of state level working population census data, as soon as ready for a State, and not wait for National Total for all states and UTs. .

ii) Employment information be compiled by Panchayats and Nagarpalikas. NSSO to give technical support.

iii) Review concepts for measurement of employment and unemployment based on time disposition criterion devised long ago; these concepts do not reflect the present concerns of people.

iv) NSSO needs to evolve better methods to bring out the child labour problem.

v) NSSO Household surveys be done of endemic areas/activities having tendency of employing bonded labour .

vi) Employment Exchange live register data are not representative of unemployment. Ratio/multipliers made available by the labour force surveys of NSSO be used to correct it.

vii) Integrate functioning of private placement agencies with public employment exchanges to secure better employment market information.

viii) Labour Bureau expand its ambit of occupational wage surveys to include part time workers also.ix) Some mechanism needs to be set up to conduct Working Class Family Living Surveys and revision of Weighting Diagram for price index at least once in ten years

x) Price data collected for compilation of Consumer Price Index (CPI) should be analysed by the Labour Bureau to understand economic factors operating in different regions of the country.

xi) Enhance the scope, coverage and frequency of the study into how Minimum Wages Act is being implemented.

xii) Computer Network based data management system for implementation of ESI Act and EPF & MP Act

xiii) Studies and data base on the training needs of workers state-wise and industry-wise.

xiv) Regular collection of data under different labour laws – Contract Labour Act, 1970, Equal Remuneration Act, 1976; Inter State Migrant Workmen Act, 1979; Child Labour Act, 1986; Payment of Gratuity Act, 1972 etc.

xv) A semi-computerised Labour Bureau office is sub-optimal. Offices should be interconnected.

xvi) Extensive statistical data on labour, available with Labour Bureau, have not been put to use in research.

Annexure-I

Ninth Plan Outlay and Annual Plan 1997-2000 Outlays & Expenditure (Ministry of Labour) Central Sector

(Rs.. Lakhs)

Division/Schemes	Approved Outlay 9th Plan	Approved Outlay 1997-98	Actual Expenditure 1997-98	Approved Outlay 1998-99	Actual Expenditure 1998-99	Approved Outlay 1999-2000	Provisional Expenditure 1999-2000
1 2	3	4	5	6	7	8	9
1. Employment Directorate	3700.00	347.00	60.63	1200.00	869.00	1100.00	988.75
	(cw 2200)	(cw50)		(cw 800)	(cw 790)	(cw600)	(cw600)
2. Training Directorate	31456.00	86100	4724.94	9896	6249.96	4160	2987.25
2.1 World Bank	18700.00	7410.00	3933.64	8526.50	5263.12	2070.00	1622.34
Projects Ertswhile	(FA 9000.00)	(cw550)		(FA 5940.00)		(cw250)	(cw150)
2.2 Women Training Scheme	1820.00	456.00	231.14	459.50	307.43	490.00	433.12
		(cw 351)		(cw321)		(cw300)	(cw250)
(I) on going	1450.00			423.50		447.00	
				(cw 308)		(cw280)	
(ii) new	370.00			36.00		43.00	
				(cw15)		(CW20)	
2.3 Other Training	10936.00	744.00	560.16	910.00	679.41	1600.00	931.79
Schemes	(FA 3012.00)	(FA200)		(FA60.00	(FA 39.01)	(FA 93)	(cw 50)
		(cw 50)		(cw 200)		(cw325)	
(I) on going	6956.00			877.00		1241.50	
	(FA 447)			(FA 50)			
(ii) new	3980.00			33.00		358.50	
	(FA2565)			(FA 10)		(FA 5)	
						(cw 5)	
3. Child Labour	24880.00	7843.00	1317.76	5000.00	2744.00	4000.00	3400.00
4. Women Labour	100.00	20.00	8.58	20.00	12.44	20.00	20.00
5. Industrial Relations	3856.00	280.00	223.20	713.00	322.94	804.00	509.42
						(cw 160)	cw 150)
5.1 CLC ©	3509.00	253.00	208.60	600.00	298.60	400.00	407.00
	(cw1290)	(cw120)		(cw 300)	(cw90)	(cw160)	(cw160)
5.2 Strengthening of Adj. Machinery	300.00	20.00	8.00	100.00	14.65	175.00	73.80
5.3 workers' participation in Management	20.00	6.00	4.60	3.00	1.89	4.00	3.62
5.4 Monitoring of Industrial Relations Machinery	27.00	1.00	2.00	10.00	10.00	25.00	25.00
6. Workers Education (CBWE)	1500.00	145.00	161.06	171.00	184.12	300.00	300.00
7. Labour Statistics (Labour Bureau)	3000.00	362.00	468.04	820.00	582.22	1043.00	925.70
(I) on going	2940.00			809.40		990.75	925.70
(ii) new	60.00			10.60		52.25	
8. Mines Safety (DGMS)	4000.00	429.00	225.00	430.00	124.00	613.00	362.20
				(cw 55)			(cw 115)
(I) on going	2500.00			309.00		327.00	
(ii) new	1500.00			121.00		286.00	
			(cw 55)		(cw 220)		
9. Industrial Safety (DGFASLI)	2500.00	563.00	496.63	470.00	226.57	317.00	136.75
(I) on going	2200.00			387.00		274.00	
	(cw 1065)			(cw 225)		(cw 100)	
(ii) new	300.00					43.00	
	(cw 90)						
10. Labour Research NLI)	1000.00	114.00	114.00	160.00	160.00	250.00	250.00
11. Grants-in-aid To Research/ Academic Instts./NGOs	100.00	35.00	0.53	20.00	9.17	40.00	40.00
12. Rehabilitation of bonded Labour	2000.00	107.00	300.12	1000.00	298.00	400.00	398.00
13. Housing Scheme for hamals	1000.00	300.00	0.00	100.00	0.00	101.00	
14. Information Technology (New)	140.00				0.00	52.00	72.00
15. Rural Workers Scheme & Social Secutiry Scheme for unorganised labour	Rural Workers Schemes completed. Social Security Scheme for unorganised labour dropped.	55.00					
Total	**79212.00**	**19210.00**	8100.49	**19800.00**	**11782.42**	**13000.00**	**10390.07**
	(FA 12012)	**(cw 1456)**		**(FA 6000)**	**(cw 1087)**	**(cw 1985)**	**(cw1325)**
				(cw 2136)	**FA 39.01**	**(FA 93)**	**(FA 87)**

FA: Foreign Aid component
CW: Civil Works Component

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Annexure-2

LABOUR AND LABOUR WELFARE OUTLAY & EXPENDITURE STATE SECTOR

(Rs. Lakh)

States/Uts	Annual 1997-98 Outlay	Annual Plan 1997-98 RE	A.P. 1997-98 Actual Expenditure	Annual Plan 1998-99 Outlay	Annual Plan 1998-99 RE	Annual Plan 1999-2000 outlay	A.P. Plan 1997-2000 RE
Andhra Pradesh	306	245	939	291	291	291	291
Arunachal Pradesh	156	132	130	149	137	137	172
Assam	646	578	560	679	727	727	703
Bihar	285	137	72	300	300	300	153
Goa	275	365	353	230	558	558	500
Gujarat	4000	4000	2337	4000	4000	4000	4000
Haryana	614	890	5	2253	1645	1645	1635
Himachal Pradesh	125	139	92	133	176	175	176
Jammu & Kashmir	1188	577	444	1196	976	976	1214
Karnataka	1163	950	903	1335	1295	1295	1088
Kerala	747	747	424	660	717	717	617
Madhya Pradesh	2175	2673	1837	1832	1605	1605	1137
Maharashtra	6305	6305	3942	5976	8794	8794	8794
Manipur	270	222	213	257	144	144	144
Meghalaya	127	75	92	170	170	170	100
Mizoram	70	67	66	77	655	65	59
Nagaland	239	239	126	200	200	200	180
Orissa	386	361	270	312	404	404	243
Punjab	1807	1124	38	1481	1641	1641	814
Rajasthan	1223	1473	1000	1721	1411	1411	1017
Sikkim	15	9	10	23	N.A.	25	25
Tamil Nadu	605	919	1110	941	465	465	500
Tripura	97	70	98	70	85	85	83
Uttar Pradesh	2061	1471	1864	2279	N.A.	1886	425
West Bengal	2807	932	392	2799	2184	2184	850
Total (States)	**27692**	**24700.16**	**17154**	**29364**	**28580@**	**29900**	**24920**
Union Territories							
A&N Islands	87.8	97	75.73	80	90	90	90
Chandigarh	42.16	42.16	26.97	26.05	35	35	43.7
Dadra & Nagar Haveli	19	19	20.29	21	26	26	26
Daman & Diu	42	42	26.33	31	35	35	35
Delhi	581	581	483.38	790	955	955	655
Lakshadweep	21.9	21.9	17.51	24	24.24	24.24	24.24
Pondicherry	140	140	133.91	140	240	240	241.65
Total (U.Ts.)	**933.86**	**943.06**	**784.12**	**1112.95**	**1405.24**	**1405.24**	**1115.59**
GRAND TOTAL	**28625.86**	**25643.22**	**23088.12**	**30476.95**	**29985@**	**31305.24**	**26036**

Note : Maharashtra outlay(for 1998-99 RE, 199-2000 outlay and RE) includes an amount of Rs.4000 lakh in each year for Special Employment Programme.

@ Excludes outlay for Sikkim and Uttar Pradesh

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Annexure-3

STATEMENT SHOWING NUMBER OF ITI/ITCS WITH ITS SEATING Capacity in various States/Uts as on 31.12.1999

Sl. No.	Name of State/ UT	No. Govt. ITI	Seating capacity	No. of Pvt. ITCs	Seating Capacity	Total ITI/ITCS (3+5)	Total Seating (4+6)
1	2	3	4	5	6	7	8
NORTHERN REGION							
1	Haryana	75	12897	22	1268	97	14165
2	HP	34	3444	2	64	36	3508
3	J&K	36	6730	1	32	37	6762
4	Punjab	103	13951	24	1348	127	15299
5	Rajasthan	112	11052	46	2972	158	14024
6	UP	230	43364	84	6956	314	50320
7	Chandigarh	2	948	0	0	2	948
8	Delhi	16	9236	37	2136	53	11372
	Sub-total	**608**	**101622**	**216**	**14776**	**824**	**116398**
SOUTHERN REGION							
1	Andhra Pradesh	84	22424	513	98316	597	120740
2	Karnataka	56	11258	247	21216	303	32474
3	Kerala	42	12364	443	39913	485	52277
4	Tamil Nadu	52	17072	581	80502	633	97574
5	Lakshadweep	1	96	0	0	1	96
6	Pondicherry	7	1132	7	440	14	1572
	Sub Total	**242**	**64346**	**1791**	**240387**	**2033**	**304733**
EASTERN REGION							
1	Arunachal Pradesh	2	374	0	0	2	374
2	Assam	24	4520	2	48	26	4568
3	Bihar	34	12560	17	4204	51	16764
4	Manipur	6	648	0	0	6	648
5	Meghalaya	7	622	2	304	9	926
6	Mizoram	1	300	0	0	1	300
7	Nagaland	3	404	0	0	3	404
8	Orissa	25	6504	111	8534	136	15038
9	Sikkim	1	140	0	0	1	140
10	Tripura	7	996	0	0	7	996
11	West Bengal	23	10602	35	2196	58	12798
12	A&N Island	1	198	0	0	1	198
	Sub-Total	**134**	**37868**	**167**	**15286**	**301**	**53154**
WESTERN REGION							
1	Goa	10	2300	4	420	14	2720
2	Gujarat	159	52296	79	680	238	52976
3	Madhya Pradesh	108	23854	72	9048	180	32902
4	Maharashtra	311	77308	268	37016	579	114324
5	Dadra & Nagar Haveli	1	228	0	0	1	228
6	Deman & Diu	2	349	0	0	2	349
	Sub-total	**591**	**156335**	**423**	**47164**	**1014**	**203499**
	GRAND TOTAL	**1575**	**360171**	**2597**	**317613**	**4172**	**677784**

ITI: Industrial Training Institute
ITC: Industrial Training Centre

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Annexure-4.1

STATEWISE SEATS UTILIZATION IN RESPECT OF TRADE APPRENTICES IN STATE SECTOR (AS ON 30.6.1999)

Region 1	Seats located 2	Seats utilized 3	% utilization 4
Andhra Pradesh	16620	13650	82.10%
Arunachal Pradesh	–	–	–
Assam	579	71	12.60%
Bihar	2668	1842	69.04%
Goa	659	284	43.09%
Gujarat	24727	19076	77.10%
Haryana	6202	4933	79.50%
Himachal Pradesh	1916	340	17.70%
Jammu & Kashmir	385	370	96.10%
Karnataka	22631	10195	45.04%
Kerala	7428	5396	72.60%
Madhya Pradesh	3838	1536	42.02%
Maharashtra	27675	26029	94.05%
Manipur	80	42	52.50%
Meghalaya	–	–	–
Mizoram	–	–	–
Nagaland	–	–	–
Orissa	3871	3070	79.30%
Punjab	5692	4567	80.24%
Rajasthan	6530	2657	40.60%
Tamil Nadu	23306	17808	76.40%
Tripura	–	–	–
Uttar Pradesh	26005	14433	55.50%
West Bengal	5728	5137	89.60%
A & N Islands	–		–
Chandigarh	262	111	42.30%
D & N Haveli	58	58	100
Daman & Diu	48	40	83.30%
Delhi	5221	4244	81.20%
Lakshadweep	–	–	–
Pondicherry	569	395	69.4
Total	**192698**	**136284**	**70.70%**

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Annexure-4.2

DETAILS OF REGIONWISE SEATS UTILIZATION IN RESPECT OF TRADE APPRENTICES IN CENTRAL SECTOR (AS ON 30.6.1999)

Region 1	Seats located 2	Seats utilised 3	% Utilisation 4
RDAT Mumbai	5298	4310	81.3%
RDAT Calcutta	9130	6861	75.1%
RDAT Faridabad	4821	3805	78.8%
RDAT Hyderabad	3750	3210	85.6%
RDAT Kanpur	6859	5740	83.6%
RDAT Chennai	10500	9523	90.6%
Total (I)	**40358**	**33449**	**82.88%**

Annexure-5

Central Board of Workers Education

Year	Worker awareness & education programmes conducted## Number	Workers Trained Lakh
1996-97	8424	2.44
1997-98	6985	1.92
1998-99	6883	1.87

##Most of these programmes are for rural workers and rural educators with a short duration of 1 to 5 days and in "Camp" mode.

Annexure-6

COVERAGE UNDER NATIONAL CHILD LABOUR PROJECT (UP to March, 2000)

Sl. No.	Name of States	No. of District covered	Sanctioned No. of School	Coverage No. of children	Actual Coverage No. of School	Actual Coverage No. of children
1	Andhra Pradesh	22	975	62,050	990	63,118
2	Bihar	8	194	12,200	187	11,213
3	Karnataka	3	110	5,500	39	1950
4	Madhya Pradesh	7	197	12,500	81	4,358
5	Maharashtra	2	74	3,700	61	3,170
6	Orissa	18	614	36,750	544	35,697
7	Rajasthan	5	140	7,000	120	6,000
8	Tamil Nadu	9	425	21,900	399	18,662
9	Uttar Pradesh	11	370	22,500	230	14,730
10	West Bengal	7	299	15,000	236	11,850
11	Punjab	1	27	1,350	0	0
Total		**93**	**3425**	**200,45**	**2887**	**170,748**

Annex-7

STATEWISE DETAILS OF BONDED LABOURERS IDENTIFIED AND REHABILITATED UPTO 31.3.2000 SINCE INCEPTION OF THE SCHEME IN 1978-79

Name of the State	Number of Bonded Labours Identified and Released	Rehabilitated	Central Assistance Provided (Rs. in Lakhs)
Andhra Pradesh	36,289	29,552	680.10
Bihar	13,092	12,368	314.48
Kamataka	62,727	55,231	1383.14
Madhya Pradesh	12,822	11,897	146.35
Orissa	49,971	46,843	898.13
Rajasthan	7,478	6,297	69.02
Tamil Nadu	63,894	58,073	911.93
Maharashtra	1,384	1,300	8.25
Uttar Pradesh	27,797	27,797	533.22
Kerala	823	710	15.56
Haryana	544	21	0.42.
Gujarat	64	64	1.01
Arunachal Pradesh	3,526	1,416	70.84
Total	**2,80,411**	**2,51,569**	**5032.45**

Source : Ministry of Labour

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Annexure-8

Coverage under Employees State Insurance

Year	Establishment (Thousand)	Employees Million	Beneficiaries* Million
March,1996	191	6.61	28.34
March,1997	200	7.31	32.77
March,1998	213	8.36	35.29
March,1999	228(a)	8.8	34.22

* Beneficiaries include dependents of employees
(a) Pertains to January,2000

Annexure-9

COVERAGE OF ESTABLISHMENTS AND MEMBERS UNDER EPF SCHEME

Year	Coverage of Establishment (in lakhs)	Coverage of Members (in million)
March,1996	2.65	19.31
March,1997	2.77	20.29
March,1998	2.99	21.22
March,1999	3.18	23.11
upto Dec.1999	3.31	23.95

Annexure-10

POSITION OF LABOUR WELFARE FUNDS

(Rs. in crores)

Year	Opening Balance	Income	Expenditure	Closing Balance
BEEDI WORKERS WELFARE FUND				
1994-95	33.59	12.46	21.59	24.46
1995-96	24.46	14.70	25.34	13.82
1996-97	13.82	21.20	23.76	11.26
1997-98	11.26	21.90	26.15	7.01
1998-99	7.01	25.07	31.41	0.67
LIMESTONE & DOLOMITE FUND				
1994-95	13.96	5.32	2.76	17.75
1995-96	17.75	3.79	3.23	18.31
1996-97	18.31	5.59	3.34	20.56
1997-98	20.56	5.86	4.13	22.29
1998-99	22.29	4.51	4.54	22.26
IRON ORE, MANGANESE ORE & CHROME ORE FUND				
1994-95	13.96	8.42	4.45	17.93
1995-96	17.93	15.79	5.75	27.97
1996-97	27.97	20.80	5.28	43.49
1997-98	43.49	15.50	5.62	53.37
1998-99	53.37	34.88	8.12	80.13
MICA FUND				
1994-95	1.09	1.48	2.02	0.55
1995-96	0.55	2.09	2.26	0.38
1996-97	0.38	2.03	2.23	0.18
1997-98	0.18	1.53	2.34	(-)0.62
1998-99	(-) 0.62	1.77	2.45	(-)1.30
CINE WORKERS FUND				
1994-95	0.65	0.06	0.05	0.67
1995-96	0.67	—	0.07	0.60
1996-97	0.60	0.57	0.13	1.04
1997-98	1.04	0.49	0.13	1.40
1998-99	1.40	0.20	0.19	1.41

Annexure-11

Initiatives taken by States for the welfare of Organised & Unorganised Labour

State		Initiatives taken by State Govts.	Objective of the Scheme
Assam		Honorary organiser for prevention In the use of drugs and spread of AIDS in tea plantations of Assam	Creating general awareness in the minds of tea garden population about the injurious Effects of Drugs abuse and The killer disease AIDS
Bihar	(I)	Group Insurance Scheme	Providing financial assistance To rural unorganised workers.
	(ii)	Rehabilitation of Bonded Labour	In addition to Rs.10,000, the State Govt. is providing extra Rs.6250 to a SC/ST bonded Labourer as special central Assistance. State Govt. get Funds from Social Welfare Department.
Gujarat	(i)	Project assistance for the Unorganised labour through Social institutions	State Govt. give funds to social institutions undertaking the family welfare programmes for workers of unorganised sector
	(ii)	Establishment of Ahmedabad Cloth Market and Shops Labour Board and Railway Yards and Goods Sheds Unprotected Manual Workers Board	Aims at protecting rights of unorganised workers engaged in these sectors.
	(iii)	Group Insurance Scheme for The rural workers.	It covers agricultural workers Salt, forest workers and Fishermen in the age-group of 18-60 years. Scheme is in cooperation with the LIC of India and Oriental Insurance Co. The premium of these Schemes will be paid by the State Govt. on behalf of rural Workers.
	(iv)	Rural Workers Welfare Board	Carried out various welfare activities for agricultural labourers through 45 welfare centres. Govt. provides 100% Grant-in-aid to this Board.
Karnataka		Setting up of Social Security Authority	Provide social security benefits to the labour class.
Kerala	(i)	Agriculture Workers Welfare Fund	To provide benefits such as medical assistance, educational Scholarships, advance for Houses, marriage purpose, Maternity benefits, etc.
	(ii)	Auto-rickshaw Workers Welfare Fund	Besides other financial assistance the scheme provides Rs.1.25 lakh as retirement benefit on the Completion of 40 years. Under the Scheme, employer and worker contribute And the State Govt. contribute 10% of the contribution made by members.
Madhya Pradesh	(i)	Krishi Shramik Durghatna Kshati Purti Yojana	Aims at helping the agricultural labourers.
	(ii)	Vocational Training for Labourers' Children	State Govt. gives vocational training to school going children Of labourers.
Tamil Nadu		Insusrance Corpus	To give benefit to construction Workers, Govt. has started Insurance Corpus by levying a small cess on Building construction. The cess is Levied at the time of passing of Building plan lay out itself.
West Bengal		Group Insurance Scheme For Agriculture, Construction And Unorganised Labourers	Provide financial assistance in the form of premium of Group Insurance Scheme, medical expense in case of accidents, education Assistance, etc.

Annexure-12

Year Wise registration, placement, vacancies notified, submission made and live register for the peeriod 1989 to 1998

Year	Employment Exchanges ($)	(IN THOUSANDS)				
		Regist- ration	Placement	Vacanices Notified	Submission Made	Live & Register
1	2	3	4	5	6	7
1989	849	6575.8	289.2	600.2	5740.4	32776.2
1990	851	6540.6	264.5	490.9	4432.2	34631.8
1991	854	6235.9	253.0	458.6	4531.2	36299.7
1992	860	5300.6	238.7	419.6	3652.0	36758.4
1993	887	5532.2	231.4	384.7	3317.8	36275.5
1994	891	5927.3	204.9	396.4	3723.4	36691.5
1995	895	5858.1	214.9	385.7	3569.9	36742.3
1996	914	5872.4	233.0	423.9	3605.9	37429.6
1997	934	6321.9	275.0	393.0	3767.8	39139.9
1998	945	5851.8	233.3	358.8	3076.6	40089.6

($) At the end of the year

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Annexure-13

Unemployment Rates# in Different NSS Rounds by UPSS*

Year	Round	RURAL		URBAN	
		Male	Female	Male	Female
1987-88	43rd	1.81	2.27	5.16	5.93
1993-94	50th	1.43	0.79	4.05	6.25
1994-95#	51st	1.06	0.31	3.35	2.86
1995-96#	52nd	1.25	0.67	3.85	3.13
1997$	53rd	1.43	0.68	3.70	4.38
1998$$#	**54th**	**2.18$$**	**1.50$$**	**5.04$$**	**6.56$$**

\# As percentage to Labour Force.

* Usual Principal and Subsidiary Status.

$ Annual Rounds based on thin sample size.

$$ Estimates for 1998 are not strictly comparable to previous years because 1998 data is for six months only, in contrast to earlier years where data for full year is available.

\# Annual rounds of NSS in relation to the full sample quinquennial round of 1993-94 was 46% in (1994-95) 42% (1995-96) 45% (1997); and 23% (1998)

Annexure-14.1

Annual Percentage change in Real Wages for Unskilled Agricultural Labour for selected States
(Percentage Change for agricultural year(July-June) over previous year)

States	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97(p)	1997-98(p)	1998-99(p)
1.Andhra Pradesh	-11.4	1.57	8.6	2.71	-1.73	1.51	4.33	-4.63
2.Assam	-8.73	0.58	-6.58	-1.67	2.68	1.52	0.65	-3.89
3.Bihar	-4.39	-5	5.98	1.69	-2.3	15.15	-4.7	-5.7
4.Gujarat	-4.31	7.92	2.86	1.27	2.92	5.08	14.43	13.41
5.Karanataka	-13.25	-14.39	41.31	-15.6	-8.61	21.39	15.72	0.13
6.Kerala	4.07	9.74	-2.84	5.24	13.2	14.54	15.44	5.11
7.Madhya Pradesh	-3.89	12.57	-3.53	4.93	1.24	1.31	0.96	0.66
8.Maharashtra	-14.79	0.66	25.58	-0.68	-7.89	8.31	10.81	-8.85
9.Orissa	-3.89	11.03	-0.14	-3.52	0.55	-0.41	2.39	0.3
10.Punjab	3.65	4.25	1.51	-1.17	-6.5	-0.42	0.68	-3.03
11.Rajasthan	6.12	-3.56	-7.66	1.05	10.33	17.81	2.34	-13.98
12.Tamil Nadu	-4.85	13.29	11.6	1.03	3.63	7.9	13.14	2.85
13.Uttar Pradesh	1.02	7.56	-6.77	-2.31	14.78	-6.39	15.92	1.62
14.West Bengal	-6.25	24.39	-6.5	-5.29	-0.28	11.15	3.02	-9.9
All India	**-6.19**	**5.21**	**5.61**	**-0.39**	**0.72**	**6.37**	**7.11**	**-2.12**

(p): Provisional

Notes: (I) Data on state average wage rates for unskilled agricultural labour in current prices are taken from Ministry of Agriculture. The same have been converted into real wages by deflating with the State level Consumer Price Index Numbers for Agricultural Labourers(CPIAL) with 1960-61 as base. (CPIAL has been sopurced from Labour Bureau,Shimla). Having estimated real wages for agricultural year percentage change over previous year has been worked out.

(II) New series of CPIAL with base 1986-87=100 were released w.e.f. Nov.,1995. To maintain continuity if old series of CPIAL, the new series have been converted by using the linking factor of each State and then, the average for each state has been worked out on the basis of converted series.

(III) The real wages for unskilled agricultural labour for each State have been wieghted by total agricultural labourers of the state for working out all India average. The weighted average real wages for all India are based on 14 States as reported above.Having estimated weighted average real wages for all India, percentage change over previous year has been worked out.

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Annexure-14.2

Average of Percentage change in Real Wages for unskilled Agricultural labour, 1980-81 to 1990-91 and 1990-91 to 1998-99, in India and selected States

	1981-91 (Pre Reforms)	1991-99 (Post Reforms)
1.Andhra Pradesh	5.43	0.12
2.Assam	5.09	-1.93
3.Bihar	5.25	0.09
4.Gujarat	2.86	5.45
5.Karanataka	3.04	3.34
6.Kerala	2.59	8.06
7.Madhya Pradesh	6.51	1.78
8.Maharashtra	7.60	1.64
9.Orissa	5.29	0.79
10.Punjab	4.10	-0.13
11.Rajasthan	4.97	1.56
12.Tamil Nadu	2.46	6.07
13.Uttar Pradesh	4.95	3.18
14.West Bengal	6.59	1.29
All India	**4.68**	**2.04**

Annexure-15

Changes in Employment in Organised Sector and Entire Labour Force: 1993-97

1. Employment in Organised Sector[1] Year	Public	(% change over preceding year) Private	Public & Private
1993	0.60	0.06	0.45
1994	0.62	1.01	0.73
1995	0.11	1.63	0.55
1996	- 0.19	5.62	1.51
1997	0.67	2.04	1.09
1993-97(Average)	0.36	2.07	0.87

II. Entire Labour Force[4] Year[2,3]	NSS Rounds & Period[2,3]	Participants in Labour Force	Employed Labour Force
		(Growth rate % per annum)	
1993	49th (Jan-June,1993)	-0.56	-0.27
1994	50th (July,93-June,94)	7.07	6.56
1995	51st (July,94-June,95)	0.36	0.99
1996	52nd (July,95-June,96)	-0.67	-0.99
1997	53rd (Jan-Dec.-1997)	1.46	1.37
1993-97 (Average)		1.53	1.53

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1. Employment Market Information (EMI) System of Ministry of Labour (DGET), covers employment in the organized sector of the economy, which is specified by EMI as (i) all establishment in Public Sector and (ii) Non-agricultural establishments in Private Sector employing 10 or more persons.

   Employment Market Information System (EMI) of Ministry of Labour (DGET), presently covers about 7 to 8 percent of the entire labour force employed.

2. Data for 1994 is from the 5th Quenqunnial round of National Sample Survey on Employment and Unemployment conducted during July 1993 to June 1994, and for remaining years data is from Annual rounds survey conducted by NSSO.

3. Annual rounds are based on a small sample size. Hence estimates based on quenqunnial rounds are not strictly comparable with the annual rounds.

4. Estimates based on National Sample Surveys on Employment and Unemployment.

CHAPTER 22

ENVIRONMENT & FORESTS

The Ninth Plan Objective

The Ninth Plan for Environment and Forests embodies the spirit of a 1992 global initiative called Agenda 21*[1] in recognition of a basic premise: environmental management and economic development are mutually supportive aspects of the same agenda. A poor environment undermines development, while inadequate development results in lack of resources for environmental protection. The Government of India's policy on Environment & Development of June 1992 encompasses a wide spectrum of developmental sectors whose policies impinge heavily upon environment and require intersectoral policy integration and coordination. Some such key sectors are agriculture, irrigation, animal husbandry, forestry, energy generation and use, industrial development, mining and quarries, tourism, transport and human settlements. At present there is no institutionalised policy - integrating and coordinating mechanism and the approach to environmental protection is compartmental with extremely indifferent results.

Pollution in Yamuna

Typically, the Yamuna Action Plan shows up lack of an integrated approach to executing a project. To illustrate, the sewer system of Delhi had lost 80% of its carrying capacity on account of age, siltage and poor maintenance, but this fact came to light only after the setting up of sewage treatment plants for the city. The result is that only 20% of the domestic waste water is being treated; the rest flows through storm water drains directly into the river. Even the treated effluent is thrown back into filthy drains as cent percent interception of sewage at the treatment points has not been achieved. The sewage treatment plants mostly remain under-utilised and, where utilised, the effect on the water quality is negligible. The treated waste water is carried along with the untreated into the Yamuna. Further, over-extraction of water from the river for irrigation cuts the minimum flow required for maintaining ecology of the river and for diluting pollutants that pour into it. A number of slums and shanties, unserviced by any sewerage system, also add their bit to make the river an open sewer. The importance of integrating policies and dovetailing activities appropriately cannot be overstated.

2. Clearly, the Policy Statement on Environment & Development stipulates that economic growth indicators like GNP and GDP would include depletion costs of environmental resources, that the Government would prepare each year a natural resources budget reflecting the state and availability of land, forests, water etc. and further that these resources would be rationally allocated in keeping with principles of conservation and sustainable development. Yet no progress has been made in this direction since the Policy Statement. GNP and national income do not reflect environmental degradation or consumption of natural resources. National income accounting without environmental accounting limits the information available to policy makers for gauging the impact of economic activity upon the environment in its role both as a "sink" for waste and a "source" for development. It is, therefore, essential that a natural resources budget is placed before Parliament along with the economic budget each year and a State of the Environment report is presented along with the Economic Survey. A similar exercise needs to be mandated for the states.

3. Under the Environment (Protection) Act, 1986, the Central Government has wide powers to take measures to protect and improve the environment and can mandate the States to present a natural resources budget and a State of the Environment report before their legislatures to ensure judicious use of natural resources for sustained development. This should entail an accounting of States' natural resources, both renewable and non-renewable, their quantity and quality, the nature of development activities that may be undertaken on the basis of the resources available and preparation of an action plan for sustainable development, abatement of pollution and restoration of the health of natural resources. Such accounting of natural resources by States would also be used as an input into the national natural resources budget to ensure that information regarding the ecological capital available for development is taken into account while shaping national policies. Such an approach would help mitigate and even prevent ecological disasters such as drought, for example. The capacity building required for formulating such environmental agenda would have to be provided through the Ministry of Environment & Forests (MOEF).

Financial Allocations:

4. Details of approved outlay and actual expenditure during Eight and Ninth Plans are given in Table 1. As a percentage of the total plan outlay of state and central governments, the allocation to the Environment and Forestry Sector is around one per cent. However, even the low level of outlay is not being fully utilized. The level of external assistance received has declined both in

[1] Agenda 21 is a global action plan adopted by over 100 heads of government at the Earth Summit in Rio de Janeiro' Brazil, in 1992.

nominal and real terms: Rs.317 crores in 1997-98 but only Rs.234 crores in 1998-99 and further declined to Rs.189 crores in 1999-00.

Table 1: Central Plan Outlay/Expenditure

(In Rs crores)

Year	Environ-ment	NRCD	Forests & Wildlife	NAEB	Total Amount	% of Total Plan Outlay
8th Plan outlay	325.00	350.00	250.00	275.00	1200.00*	0.48
8th Plan expdr.	406.95	314.07	422.24	488.64	1631.90	
9th Plan outlay	859.84	700.00	854.00	600.00	3013.84	1.1
1997-00 outlay	600.4	500.7	568.8	220.5	1947.8	0.64
1997-00 expdr.	420.6	367.2	482.4	236.4	1506.5	0.54
2000-2001 outlay	242.20	210.05	253.75	144.00	850.00	0.72

** Subsequently revised on year to year basis to Rs. 1797.50 crore.*

Environmental Issues

Air & Water Pollution

5. **Outdoor Air Pollution**: - Industries, coal-based thermal power stations, vehicles and biomass burning are main sources of air pollution in urban areas. The ambient air quality has deteriorated all over the country, especially in urban and semi-urban areas. The Time Series data for 1995-98 on ambient air quality recorded for 23 cities reveals that Suspended Particulate Matter (SPM) levels remain critical (above 210 mg/m^3) in 12 cities, though down marginally in most of those cities during this period. In small to medium towns such as Indore, Ahmedabad, Patna and Ludhiana, the SPM levels are higher than those prevailing in metro cities. Sulphur Dioxide and Oxides of Nitrogen levels have registered an upward trend, but they remain well within the National Ambient Air Quality Standards (NAAQS) in all the 23 cities.

Control of Vehicular Pollution

Phasing out of grossly polluting vehicles

- Twenty year-old vehicles were prohibited from plying, followed by phasing out of 17-year old and 15 year old vehicles in Delhi.
- Registration of new auto-rickshaws with front engine has been banned in Delhi from May, 1996
- Improvement in engine technology is sought through implementing Euro I (all vehicles, except2/3 wheelers) and Euro II (for private non-commercial vehicles) norms of emissions.

Improvement of fuel quality

- Unleaded petrol has been introduced in Metro Cities and State Capitals. Refineries have been asked to ensure the benzene content in unleaded petrol within the limit of5% (v/v) as prescribed for the leaded petrol in 1996 for the entire country and 3% (v/v) from 1998 for Delhi and other Metro cities.
- Sulphur in diesel supplied in Delhi and Taj Trapezium reduced to 0.l25% in 1997
- It was expected that diesel with 0.25% sulphur be available throughout the country by September, 1999.
- In order to minimize the pollution and traffic hazards caused by tankers on the road, GAIL has taken the initiative of transporting LPG through pipelines.
- These steps have resulted in reduction of the pollution load of Delhi. Lead levels have reduced by as much as 97% from the 1995-96 levels.

Tightening of vehicle emission norms

- Emission norms for cars were tightened in the country by 50% as compared to 1996 norms.
- The norms for the year 2000, notified in August 1997 under the Motor Vehicles Rules for the entire country, require major modifications in the engine design especially in regard to fuel injection system.
- India has adopted the Euro I and Euro II norms for vehicle emissions. In Delhi Euro I norms have been enforced since 01 June 1999 and the Euro II would come into force from 01 April 2000.
- MOEF notified the specification for 2-T oil for Two-Stroke Engine, which became effective from 01.04.99 throughout the country.

Traffic management

- An efficient public transport system is needed urgently to reduce the number of people opting for individual vehicles.
- With regard to traffic management, a lot needs to be done. More fly-over and by-pass are needed to ensure a smooth flow of traffic.
- Flexible office timings may need to be considered to distribute the heavy office hour rush over a longer time period

6. **Indoor Air Pollution** - Burning of unprocessed cooking fuels in homes causes indoor air pollution particularly in rural households which rely predominantly on bio-fuels such as cow-dung, fuel-wood, and crop residues. Mineral coal is also used in some households. Pollutants released in closed, unventilated places are far more dangerous than those released outdoors. Acute Respiratory Infection (ARI), Chronic Obstructive Pulmonary Disease (COPD) such as bronchitis, lung cancer, blindness, TB, prenatal effects (low birth weight etc) cardiovascular disease and even asthma are being attributed to Indoor Pollution. Women and children are the main victims.

7. It is estimated that indoor air pollution in India's rural areas is responsible for at least 5 lakh premature deaths annually, mostly of women and children under 5. This accounts for 6% - 9% of the national total measured in terms of Disease Adjusted Life Years. These estimates make the health impact of indoor exposure larger than the burden from all but two of the other major preventable risk factors that have been quantified, malnutrition (15 per cent) and lack of clean water and sanitation (7 per cent).

8. Although better cooking technology, ventilation and extension work are immediate requirements, expert opinion suggests that moving up the energy ladder is the most important need. Since biomass is obtained by poor rural households without any direct financial cost, the shift does not seem practical in the short run, unless a highly cost-effective and innovative approach is formulated. Local and global dimensions of indoor air pollution are not altogether divergent. Apart from death and disease occurring hand in hand, there is also an adverse impact on climate through the release of greenhouse gases. This convergence justifies the flow of global financial resources, perhaps through Global Environment Fund (GEF), to support subsidised access to non-fossil based fuels for cooking in far flung, difficult and sparsely populated areas. Proposals for seeking external assistance to deal with indoor air pollution need to be explored and formulated.

Global Health Burden of Indoor Air Pollution

In India, half a million deaths each year are attributed to indoor pollution from traditional biomass fuels. A similar study in China found over 700,000 premature deaths per year from household use of solid fuels (split about 2 to 1 between biomass and coal), with more COPD and lung cancer and less ARI than for India. Since India and China together account for approximately 60 per cent of solid-fuel-using households in the developing world, this implies that, worldwide, about 2 million premature deaths each year could be attributed to household solid fuel use. Depending on the number of young children in the total, indoor exposure would account for 4-6 per cent of the global burden of disease. By comparison, urban air pollution is estimated to be responsible for 1-2 per cent of the global disease burden.

9. **Water Pollution** - The Central Pollution Control Board (CPCB) has been monitoring water quality of national aquatic resources in collaboration with the State Pollution Control Boards (SPCBs). This is done at 507 locations comprising 414 stations on rivers, 24 on ground water, 36 on lakes and 32 on canals, creeks, drains and ponds. The results indicate that organic and bacterial contamination continues to be critical forms of pollutants in aquatic resources. In more than 1/3 of the samples, the Bio Chemical Oxygen Demand (BOD) levels are higher than the prescribed level of 3 mg/litre. Similarly, total coliforms exceed the prescribed norm of 500 MPN/100 ml in more than 50% of the samples. The position with regard to faecal coliforms is even worse.

10. The Yamuna is the most polluted river in the country with high BOD and coliform levels in the 500 km. stretch between Delhi and Etawah. Other severely polluted rivers are the Sabarmati at Ahmedabad, the Gomti at Lucknow, the Kali, Adyar, Coum and Veghai at Madurai, the Musi downstream of Hyderabad, to mention only a few. So are river stretches of the Ganga, downstream of Kanauj, Kanpur, Allahabad, Varanasi and Trighat , the Godavari, downstream of Nasik, Nanded and Rajamundry, the Cauvery, downstream of Rangapattna, the KRS Dam and the Satyamangalam Bridge; the Krishna between Mahabaleshwar and Sangli; the Tapi between Nepanagar and Baranpur, the Mahanadi, downstream of Cuttack, the Mahi between Badanvar and Vasad, the Brahamani, downstream of Rourkela, Talcher and Dharmshala.

11. Water pollution is caused by industrial discharge, irrigation run-off and untreated sewage. About 75% of the wastewater produced is from domestic sector. Sewage treatment facilities are inadequate in most cities and almost absent in rural India. Only 25% of Class I cities have wastewater collection, treatment and disposal facilities. And fewer than 10% of the 241 smaller towns have wastewater collection systems. Not more than 20% of all wastewater generated in Class-I cities and 2% in Class-II towns is treated. The water quality even in Delhi is not of the desired standard.

12. **Ninth Five Year Plan Water Quality Initiatives** - The Ganga Action Plan (GAP) Phase-I, National River Conservation Plan and National Lake Conservation Plan are three principal components of water quality schemes. Under GAP-I started in 1985, a capacity to intercept, divert

and treat 873 mld out of 1340 mld of sewage generated in 25 Class-I towns on the banks of Ganga was to be created. Against this, a capacity of 835 mld has been created and 258 schemes out of a total 261 schemes have been completed. Although the project was expected to be completed within five years of the Seventh Plan, is continuing into its 15th year. The time and cost over-runs have been attributed to the fact that such a scheme was taken up for the first time in the country without any preparatory work in project formulation and planning. Also, states have been taking a lukewarm interest in implementation. In the Ninth Five Year Plan, this scheme has been converted from 50:50 sharing Centrally Sponsored Scheme (CSS) into a 100% CSS. In spite of this, assets created are not being adequately utilized because of lack of operation and maintenance funds. Progress of other River Action Plans has been equally slack primarily because of slow preparation of Detailed Project Reports (DPRs) by the State Governments and withholding of Central Government funds from executing agencies. A solution to the problem of operation and maintenance of assets under various National River Conservation Directorate (NRCD) programmes needs to be urgently found. Lack of motivation on the part of state governments in this national programme and the tendency of the programme degenerating into a routine municipal function needs to be seriously addressed.

13. A National Lake Conservation Plan which was carved out of the Wetland Programme to focus on urban lakes suffering from anthropogenic pressures has not taken off for want of assistance from foreign funding agencies as required by the Cabinet Committee on Economic Affairs. The Dal Lake Conservation Plan which was approved by the Planning Commission and Rs 25 crore released to the State Government as additional Plan assistance has also been slow to take off. In the meanwhile the squatter population on the lake seems to go on increasing.

Industrial Pollution

14. Pollution Control Board has identified 1551 large and medium units in 17 categories of highly polluting industries which are contributing most to the pollution load. As per the decision of National River Conservation Authority, the CPCB has directed authorities to ensure that the polluting industries install requisite pollution control systems within specified time frame. As on 30.9.1999, 476 out of 851 units complied with the directions and 130 were closed down.

15. **Common Effluent Treatment Plants -** Under a scheme for Common Effluent Treatment Plants (CETPs) in a cluster of small-scale industries, a subsidy of 25% of the project cost each from the Central Government and the State Government is provided. A 30% cost is met through financial institutions as loan and the balance 20% is contributed by the members of the CETPs. So far, 88 CETPs have been approved for financial assistance. An independent evaluation of this scheme needs to be undertaken.

16. It has been found during an evaluation of the State Pollution Control Boards by the Project Evaluation Organisation PEO that the posts of Chairmen of the Pollution Control Boards are occupied by politicians. Full-time technically competent and qualified Member-Secretaries are absent and the posts supposed to be filled by technical experts and representatives of local bodies are lying vacant.

17. **Hazardous Wastes -** Safe disposal and handling of hazardous wastes is emerging as a problem area. An estimated 10,504 units generate such waste in the country. Current estimates are that about 5 million tons of hazardous waste is generated and it is largely concentrated in highly industrialised states such as Maharashtra, Gujarat, Andhra Pradesh and Tamil Nadu. The Hazardous Wastes (Management and Handling) Rules 1989 under Environment Protection Act were brought out by MOEF and are applicable to 18 categories of wastes listed in the Schedules to these Rules.

18. It is ironical that hospitals, nursing homes and clinics which provide succour to the ailing also create health hazards through indiscriminate disposal of bio-medical wastes. These include a variety of wastes such as hypodermic needles, scalpel blades, surgical gloves, cotton, bandages, clothes, medicines, blood and body fluid, human tissues and organs, body parts, ratio-active substances and chemicals. Some of these contain harmful organisms and disease-causing agents. For instance, a reuse of discarded syringes/needles can transmit lethal diseases like AIDS and hepatitis. Similarly, incineration of wastes, particularly chlorinated organic compounds, can result in noxious emissions, including the dreaded dioxin.

19. A draft of the Municipal Solid Waste (Management and Handling) Rules has been issued and a Steering Committee has been constituted to oversee implementation of the Biomedical Wastes (Management and Handling) Rules which were finalized in 1998. However, at present there is very little infrastructure available for proper disposal of these wastes, except for a few individual facilities in large chemical complexes.

20. Although 18 states have been provided financial assistance for management of hazardous wastes, the progress in identification of sites for safe disposal of hazardous wastes is poor. As reported by SPCBs, about 76 hazardous waste disposal sites have been identified, out of which only 12 have been notified by the States/

Union Territories. As a result, large scale leaching from dumps of hazardous wastes continues to contaminate soil and ground water resources. The Supreme Court has commented adversely on the steps taken by SPCBs to monitor setting up of such facilities.

21. New approaches to this problem need to be considered. Non-profit entities with complete autonomy but independent regulatory control in partnership with SPCBs and financial institutions need to be encouraged. These could levy an appropriate user charge.

Biodiversity

22. India is endowed with unique bio-diversity. It is one of 12 mega bio diversity countries of the world and harbors in excess of recorded 46,000 plant species and 81,000 animal species. About 20 species of higher plants are categorized as "possibly extinct" as they have not been sighted during the last 6-10 decades. Indian Cheetah, lesser Rhino, the Pink – headed duck, the Forest outlet and the Himalayan mountain quail are reported to have become extinct. About 39 species of mammals, 72 birds, 17 reptiles, 3 amphibians, 2 fish and a large number of butterflies, moths and beetles, besides 1336 plant species, are considered vulnerable and endangered. Habitat loss, unsustainable legal and illegal harvesting, exotics, imbalance in community structure and floods, drought and cyclones are main threats to bio-diversity.

23. Current in-situ and ex-situ conservation efforts are based on a combination of holistic eco-system-based schemes and those specifically focused on apex key species. Some of these are in the form of programmes such as Bio-sphere Reserves, Tiger Reserves, National Parks and sanctuaries, Wetlands, Mangroves, Coral reefs, Deserts and Mountains.

24. Since the conservation of an entire range of species is neither practical nor possible, survey organizations may identify the keystone and umbrella species. Conserving such species ensures protection of all related species as well. Similarly, there is a need to develop models/packages for the conservation of endemic species. The process of preparation of red data books on endangered species of flora and fauna needs to be speeded up and validated using the internationally recognized revised guidelines.

Forests and Wildlife

Role of forests

25. Indian forests, though not very rich with a low productivity of 0.7 tonnes per ha per year (this contrasts with the FSI estimate that most Indian forests are capable of productivity of at least 2 cum per ha per year), are important for several reasons.

26. First for the environmental functions that they perform, such as watershed protection, prevention of soil and water run-off and groundwater recharge. Studies of different tropical forest and tree crop systems have shown that it is the understorey of grass, shrubs and leaf litter, rather than the trees themselves, which is the key element in reducing most soil erosion and surface runoff. Thus, for a given level of land management, natural forests provide the highest level of soil and moisture conservation services. This has been rightly recognized in India and the Forest Conservation Act passed in 1988 has banned commercialisation of forests.

27. Second, they are a source of sustenance to 100 million forest dwellers, more than half of them tribals, as they provide non-timber forest products (NTFPs), small timber, fuel-wood and fodder.

Area of dense forest cover in India (m ha)

Year	Dense forest cover
1972-75	46.42
1980-82	36.14
1985-87	37.85
1987-89	38.50
1989-91	38.56
1991-93	38.58
1995-97	36.73

28. Third, most forests are located in dry and poor regions of low agricultural productivity. Hence, the potential for poverty alleviation through forestry is immense, through both livelihood products and through forest functions of stabilizing moisture regime for agriculture.

29. And last, a large number of programmes in watershed development, drinking water, agriculture, irrigation and dairy will have sustained benefits only when barren lands are put under green cover through afforestation. A single Rupee spent on forests will not only improve productivity of forests, but would enhance returns in many related sectors.

Changes in Forest Cover

30. Whereas policies in India up to 1988 emphasized the use of forests for industry and urban users, the policy since then gives primacy to environmental functions of forests and satisfying the subsistence needs of forest dwellers. Thus, the forest policy today is seen to perform an important poverty alleviation function, and forest

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operations are often funded from budgets meant for rural development.

31. Thanks to these policy changes the area of dense forests has now stabilised, though the country lost 1.3 m ha of dense forests (with crown cover of more than 40%) every year for the years 1972-75 and 1980-82. The pressure on forests is also reduced by liberalized wood imports (touching 1.3 billion US $ in 1997-98), ban on felling of green trees, natural spread of Prosopis juliflora shrubs (an excellent coppicer with high calorific value with sale of its twigs emerging as a cottage industry for the poor, especially for women and children) and by the success of farm forestry. Finally, agriculture intensification through irrigation and use of fertilisers and reduction in poverty may have saved forests from being diverted for food production.

Outlay for Forests

32. Forests are managed by states primarily with state funds supported by external donors. For the forestry sector, during the Eighth Plan (1992-97) the state plan outlay was Rs.3,550 crores, whereas funds received from the Ministry of E & F as centrally sponsored scheme were only about Rs.500 crores, or less than 20% of the total. This would be even less than 15% if one took into account the transfer of funds from District Rural Development Agencies (DRDA) to district field agencies for forestry related work. For the Ninth Plan the State Plan outlay is Rs 6,300 crores, whereas the contribution of centrally sponsored schemes would not be more than Rs.1,500 crores. Most externally aided projects in the forestry sector are negotiated with the states and external aid is reflected in the state budgets.

33. Investment in forestry in India is likely to decline sharply in the next two years, however, because of a ban imposed by countries like Japan and Denmark on assistance to India. Rough estimates indicate that annual external funding in the forestry sector will decline from the present level of Rs.844 crores to just Rs.300 crores by 2002-03 unless special efforts are taken to start new projects. There is likely to be a decline in assistance from the World Bank too as no new projects have been signed after UP (1997) and Kerala (1998), nor are there any in the pipeline.

34. External assistance is not without strings. DFID spends far too much on documentation. According to its own report (August 1999) DFID produced 160 consultancy reports for a small Himachal Pradesh project of Rs 40 crores in two districts. Many of these reports have never

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Table 2: State wise Coverage Under JFM (Area in Sq. Kms.)

State	No. of committees	Total Forest Cover	Area under JFM	JFM area as % of total forest sector
Andhra Pradesh	6575	43290	16322	37.70
Arunachal Pradesh	10	68602	53	0.08
Assam	101	23824	31	0.13
Bihar	1675	26524	9350	35.25
Gujarat	706	12578	910	7.23
Haryana	350	604	607	100.50
Himachal Pradesh	203	12521	620	4.95
J & K	1599	20440	793	3.88
Karnataka	1212	32403	128	0.40
Kerala	21	10334	40	0.39.
Madhya Pradesh	12038	131195	58000	44.21
Maharashtra	502	46143	947	2.05
Mizoram	103	18775	58	0.31
Nagaland	55	14221	6	0.04
Orissa	3704	46941	4193	8.93
Punjab	89	1387	390	28.12
Rajasthan	2705	13353	2356	17.64
Sikkim	98	3129	22	0.70
Tamil Nadu	599	17064	2244	13.15
Tripura	157	5546	162	2.92
Uttar Pradesh	197	33994	345	1.01
West Bengal	3431	8349	4906	58.76
Total	**36130**	**591217**	**102483**	**17.33**

been read, let alone acted upon by Forest Department (FD) staff. It caused tremendous burden to the local staff. The gainers were the British Universities. One hopes that the MOEF as well as the Department of Environment (DOE) would closely monitor such inputs from consultants. Government of India (GOI) also does not have a strategy for prioritising the needs in the sector and then coordinating between donors. MOEF has only ensured that funds from the two largest donors do not go to the same state. There is need to improve the capability of the Ministry to monitor and guide the implementation of all forest related activities.

Joint Forest Management (JFM)

35. By 1997, eighteen state governments have issued enabling resolutions permitting partnerships with local people. These states have 80 percent of the country's forest land and 92 percent of its tribal population. The JFM programme has now become the central point of future forest development projects funded by the Government of India and the donor agencies. According to government data, it is estimated that 36,130 village committees are protecting about 10.2 million ha of forests (though both quality of protection and its sustainability need improvement). The area comprises 17% of the forest cover in India. With more imaginative policies and innovative silviculture, this area could be increased to 15 million ha in about a decade to cover about a quarter of the total forest cover.

36. The Guidelines for implementing JFM were revised by GOI in Feb. 2000. The important new suggestions are:

- Register JFM societies under Societies Registration Act,
- Increase participation of women,
- Permit JFM in good forest areas,
- Recognise self-initiated groups, and
- Prepare micro-plans after Participatory Rural Appraisal (PRA) exercise.

However, several problems still remain. These are discussed below.

37. **Rights of Non-protecting People** - The legal framework for joint management remains weak and controversial. First, the old rights and privileges of the people (usually established in the colonial period) have continued in most degraded forests, and often such rights include free access to expensive timber. Privileges without corresponding responsibility are counter-productive. Second, often more than one village have their rights in the same forest, with the result that it becomes difficult to promote village protection committees. Third, a large number of new settlers in a village (they may be the poorest) have no traditional rights in forests as their ancestors did not live in the village at the time of forest settlement. They get deprived of benefits and are compelled to obtain these illegally. Fourth, sometimes people living several kilometres away from the forest have customary rights in forests. With no possibility of getting involved in forest management, they have been customarily using these lands as an open-access resource without any restriction for grazing and collection of fuelwood and NTFPs. Often forest officials, while recognising the VFC (village forest committee) formed in a village with respect to a particular forest tract, give permission for collection of firewood from the same forest area to right holders from other villages who do not contribute to protection. Migratory tribes from other states too send their cattle for grazing, and their rights have been upheld by the Supreme Court.

38. Thus, a forest patch does not have a well-defined and recognised user-group and may admit the rights of an entire population of that region or of the entire forest area. This type of 'right-regime' which makes forests open-access lands is not conducive to successful protection as rights of contiguous villages protecting forests may come in conflict with those of distant villages not protecting them but still having rights to enjoy fruits.

39. Therefore, at least in JFM areas, use rights should be reviewed in order to put them in harmony with *'care and share philosophy'* which is the basis of JFM. Even in unclassed forests where no previous settlement has been done, the task is not simple due to the practice of use by a large class of stakeholders. Elsewhere, old settlement rights may have to be modified to make these amenable to formation of viable VFCs. This is easier said than done as changing customary or legal rights would be perceived as an unpopular step and may face political hurdles. Such a policy can be made acceptable if it is accompanied by other pro-people changes in technology, nature of species, secure rights over produce, etc.

40. **Inter-village Disputes** - Most VFCs want their forest tract boundaries to be formally demarcated. Rough agreements between villages over these boundaries may be sufficient when the resource is degraded, but once valuable products are regenerated conflicts will ensue in the absence of formal notification. Often forest maps are not available which delays formalisation of boundaries. This is not a simple exercise since natural, administrative and customary boundaries do not coincide. In practice, under existing customary use, different boundaries apply to different products, e.g. grazing and fuelwood. Boundary disputes between neighbouring VFCs are likely to increase as harvesting approaches.

41. **VFCs and Panchayats** - Another legal concern is the status of VFCs versus the Village Panchayats which may cover a larger area than controlled by VFCs. State Government resolutions recommend VFCs as functional groups. However, these committees have no legal and statutory basis and it may be difficult for them to manage resources on a long term basis. The links between panchayats and JFM groups are fairly weak, specially in AP and MP. At the moment the JFM in AP and MP is working well because the programme is flush with funds. Whether or not this is sustainable, however, remains an open question. The Orissa order prescribes that the lady Deputy Chief of the local panchayat will be the head of the VFC but the panchayats are not working well and her stewardship is not seen as legitimate by the indigenous VFCs.

42. Unlike panchayats, powers to the VFC are not given under any law, which may affect its right to check free-riding in the longer run. Thus, most successful VFCs charge fees for collection of forest produce, although this practice is technically against the Forest Act. The illegality can be removed if the allotment of forest land to VFCs is done under section 28 of the Forest Act. At present it is done administratively. Often in the same region, such as UP hills, the World Bank has promoted different committees, one for forests, a second for drinking water, and a third for education, and these may be all distinct from panchayats!

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Marketing of NTFPs

43. As the commercial importance of non-timber forest products increased in the past, the state governments nationalised during the 1960's and 70's almost all important NTFPs. This has meant that these can be sold only to government agencies or to agencies so nominated by the government. In theory, this right was acquired ostensibly to protect the interest of the poor against exploitation by private traders and middlemen. In practice, such rights were sublet to private traders and industry. Thus, a hierarchy of objectives developed: industry and other large end-users had the first charge on the product at low and subsidised rates; revenue was maximised subject to the first objective which implied that there was no consistent policy to encourage value addition at lower levels; and tribal and the interest of the poor was relegated to the last level or completely ignored. Old restrictions imposed in the past on NTFP processing and sale are still in place. The poor have no right to process these items and sell them freely in the market.

44. Practical considerations would show that government is incapable effectively to administer complete control and do buying and selling of NTFPs itself. It is better for government to facilitate private trade and to act as a watchdog rather than try to eliminate it. Monopoly purchase by government requires sustained political support and excellent bureaucratic machinery. It is difficult to ensure these over a long period and hence nationalisation has often increased exploitation of the poor. Experience shows that open markets may give producers the best chance of gaining a competitive price for their products. For marketing NTFPs, government should not have a monopoly nor create such a monopoly for traders and mills. The solution is to denationalise NTFPs gradually so as to encourage healthy competition. Government should set up promotional Marketing Boards, as distinct from commercial corporations (which are inefficient and hence demand nationalisation), with responsibility for dissemination of information about markets and prices to the gatherers. The Boards would help in bridging the gap between what consumers pay and what gatherers get. Free purchase by all and sundry would also be in tune with current liberalisation and open market climate. Encouraging setting up of processing units within tribal areas is also to be recommended.

45. **NTFP Issues in Schedule V states** - Doing away with government monopoly is urgent also because GOI has passed a new legislation for Tribal areas (called Schedule V areas) of Central India according to which Gram Sabha/ Panchayat, and not government, is the owner of

Kendu Leaf (KL) Collection in Orissa

- 15 lakh poorest people - mostly women get 10% to 40% of their annual income from KL
- As compared to AP and MP, Orissa leaves are of a better quality, yet pluckers get lower wages
- Orissa govt gets Rs.150 crores as royalty - for every rupee paid to plucker royalty is 3 rupees
- On Bauxite, the royalty is Rs 30 per tonne; on KL Rs.12,000 per tonne
- Unlike MP, no sharing of royalty with pluckers as bonus, no group insurance scheme
- Often payment is delayed by 3 to 4 months forcing the pluckers to mortgage their cards

Suggestions

- Share 50% royalty with pluckers - it will give additional Income of Rs.1,000 to Rs.1,500 annually to households
- The rest 50% royalty should go to panchayats
- Promote Self-Help Groups, introduce Group Insurance
- Ensure prompt payment

NTFPs. Although this law has been on the statute since December 1996, unfortunately its implications for tribal incomes or the sustainability of JFM has not been fully understood by the states and they have not passed laws to honour the commitment of the Constitution. The Ministry of E & F wrote to all state governments in July, 1998 against monopolies and in favour of open market purchases, but unfortunately it did not pursue the compliance of its own orders, with the result that no change took place despite a strong Central law and the letter from Secretary, MOEF.

46. **New Initiative on Bamboo, 1999** - Cane, bamboo and basket weavers total more than a million. For them, the procedure of obtaining bamboo from forests is complicated, especially for artisans located outside the district. The procedure can be completed only through involvement of contractors and agents in the whole process, which makes sale in the black market a good possibility. Although there has been liberalisation of procedure for farm forestry, no such initiative has been taken so far for bamboo workers, with the result that both production of bamboo on private farms as well as access of artisans to bamboo has suffered. A new scheme has been launched by the Prime Minister on the World Environment Day to augment bamboo resources in the country. The scheme can generate up to 50 lakh mandays in rural employment. However, for the scheme to succeed, the State Governments will have to make modifications in many rules and regulations governing bamboo.

47. The artisans require young and green bamboo, which is not produced by the FD; in fact the present silvicultural practices ban felling of green bamboo. Traditionally the department's bamboo harvesting policy systematically maximizes dry bamboo output for paper mills rather than green bamboo output for artisans. In fact, if bamboo forests are carefully worked and green bamboos regularly harvested, bamboo output of an average clump would jump. Artisans who are living close to forests can be involved in management of bamboo forests so that they extract bamboo themselves without damaging the clump.

48. **JFM & Poor** - JFM has often failed to give fair attention to the poorest forest dependent communities such as artisans, headloaders and podu (shifting) cultivators. Although FD does not evict podu cultivators, it includes old podu lands within the scope of JFM. This increases fears of the tribals that after wage earning programmes are withdrawn their food security would be jeopardised.

49. **Links with Watershed Development** - One of the least understood but a most useful concept is the complementarity between forests and agriculture. If it is strengthened, the local community develops a stake in the preservation of forests which can deter individual attempts at encroachments or degradation. Traditional agro-forestry patterns are a reflection of farmers' own perception of complementarity between trees and crops, but the issue is wider than one between trees and crops. To enrich this complementarity, one of the main objectives of forest management should be preservation of soil and moisture in a demonstrative fashion.

JFM & Poor

In forest villages, the poor are supposed to protect the natural resources. But have they developed a sense of ownership about those resources?

A chief Minister sought to find this out when he went to a JFM village in his state recently. There, the CM pointedly asked a tribal why he was participating in the programme.

The reply was just as direct. "I get here Rs.65 as wages," the tribal said. "Elsewhere, I will get only about two-thirds that money."

CM asked again: "Who owns these trees?"

"Forest Department," replied the tribal. He had no clue what long-term benefit, if any, he would get from protecting those trees.

Elsewhere, as the CM met several thousand women, he tried to check out if they got as much wages as men got. "Those of you who fail to get same wages, put up your hand," he urged his audience.

Almost all the women raised their hands as government officials looked embarrassingly on. The officials had earlier told the CM that the women workers were being paid equal wages in all government programmes.

50. Soil and water conservation measures such as contour trenching, vegetative bunding and small check-dams can enhance soil moisture and accumulation of top soil, accelerating the rehabilitation of micro-environment. This by itself helps in regeneration and better survival of plants. However, the fund allocation in forestry projects for soil conservation measures do not appear to be adequate. The Ministry of Rural Areas and Employment recently permitted its funds to be used in watershed schemes by the FD, but a similar initiative is needed from the Ministry of Agriculture too.

Other Policy Issues

51. There are several other areas where action by government is needed. Here are some of them:

- Verifiable indicators to measure the progress of poverty alleviation, tribal welfare and women's empowerment do not exist; these have been neither stressed nor monitored and, therefore, not achieved. Benefits to the poor beyond wages are limited.
- Integrated land use planning is not being attempted and common lands adjacent to forests get a low priority in projects after 1991.
- Focus on farm forestry has been surprisingly diluted since 1991 despite its enormous potential, especially in agriculturally backward areas. There are better social returns in promoting agro forestry models in rainfed or semi-arid regions which make up most of India's marginal lands. It is in this region the JFM Projects need to take a big initiative. Similarly, tree plantation on marginal and wastelands belonging to the poor is not encouraged in forest projects.
- Growing of short rotation crops on forests still continues, thus reducing the size of the market available to farmers. Unfortunately, both AP and UP projects are funding eucalyptus plantations on government forests. Since the demand for marketed wood in India is limited, duplicating species like eucalyptus on forest lands as on farm lands ultimately cuts into the profits of farmers and, thus, undermines the farm forestry programme itself.
- Continuing subsidies on government supply of wood and bamboo to industries act as a disincentive to industry to pay remunerative price to farmers. Governments need to examine the pattern of subsidy to forest based industries and wipe out that subsidy in a time-bound manner so as to improve valuation of forests. This will also give a big boost to farm forestry.
- In the current import policy, government must review its decision to allow cheap and duty free import of pulp. While free import of timber may continue, as it reduces pressure on forests, such facility for pulp hits farmers as both eucalyptus and bamboo are short gestation crops eminently suitable for the farm sector.
- Funds meant for the forestry sector are often diverted to other areas, especially to pay salaries. MOEFshould examine setting up Forest Development Agencies at the field level to ensure timely availability of funds for this sector.
- There is poor understanding of the social implication of technology. FD should consider changing forest technology by shifting attention from timber to floor management and production of more gatherable biomass.

52. **Multiplicity of Schemes** - Out of the three schemes run by the National Afforestation and Eco Development Board (NAEB), two are similar in nature and must be merged. The Ministry should also consider running the merged scheme only in those states which do not have an externally funded project or which has just completed such a project. Running the scheme in all the states means dilution of efforts; on the other hand, confining it only to a few states will help in ensuring stabilisation of the efforts made earlier in the projects.

Forestry Research Education & Training :

53. The prime institution responsible to undertake, aid, promote and co-ordinate forestry research, education and training in the country is the Indian Council of Forestry Research and Education (ICFRE) Eight institutes and three advanced centres of the Council cater to research needs of the different eco-climatic zones.

54. Research and technology development does not form part of an integrated strategy for development of forestry. There has been good research in some states by ICFRE but it is spotty and variable. The states have endeavoured to do their own work in research. Though there is nothing wrong with this, the state efforts could have been made more effective and productive through better linkages with other state level as well as national and international organisations. Another shortcoming is that research is not currently driven by problems encountered in the field. Other problems are:

- Current projects give less than adequate attention to research in NTFPs production and processing which should ideally be high on the state research agenda.
- Dissemination of research through field level functionaries does not receive adequate attention.
- Development of new technologies for rainfed areas does not find adequate part in the research agenda.
- Improvement in seed quality, seed & seed sources and seed handling, nursery improvement, plant propagation, silvicultural management and fire protection should be the central points of research agenda.

55. The incentive framework is not geared towards high quality research. In forestry, important research positions in research institutes are occupied by officers of the Indian Forest Service (IFS) who are frequently transferred and hence are not able to keep up with the rapid advances in science. This could also be a major reason why forestry research has lagged behind agricultural research in India. Agricultural research is not

run by administrators. At the same time one should add that the quality of papers produced by non-foresters in Forest Research Institutes is quite poor when compared to International standards. Unfortunately there is no simple solution to reforming this basic problem on the research front.

56. The World Bank-assisted Forestry Research, Education and Extension (FREE) project is being implemented by ICFRE. The implementation experience of the project has not been easy. It was classified as a problem project by the mid-term review mission of the World Bank because of poor project achievements, poor disbursement, procurement delays, staffing, constraints and failure to comply with critical legal covenants. In addition, implementation of the eco-development component of the project has run into problems. An evaluation study done by Winrock International Institute has pointed out that a proper mechanism is required to establish strategic missions, identify programme focus and set research priorities. Effective coordination is lacking and there are overlaps and duplication in various projects being undertaken by different Institutes. It brings out the isolation of scientists working in those Institutes from other institutes in the country as well as international Institutes. The report has emphasized deployment of research personnel in projects suited to their area of expertise and experience, more focused training of the staff as also the need for research on issues like national forest eco-systems, forest hydrology and social sciences.

Wildlife

57. From 10 National Parks and 127 sanctuaries occupying some 2.5 million ha in 1970, the total coverage in 1996-97 went up to 83 National Parks and 447 sanctuaries over 15 million ha. On the whole the status of these Protected Areas (PAs) is somewhat unsatisfactory vis-à-vis biodiversity conservation. Only 40% of National Parks and 16% of Wildlife Sanctuaries have completed their legal procedures. These are under intense pressure from human population living within them (> 55%) and around them (< 80%); from traditional rights and leases in these areas (40%); from traditional grazing by livestock (> 40%), fodder extraction (>15%), timber extraction (>16%); and non-timber forest products (NTFP) extraction (>35%). In addition a significant number of them are used by government agencies (> 55%) for public thoroughfares (> 45%) and plantations (> 45%). Protected areas also experience illegal occupation and use (> 8%), encroachment (> 7%) and poaching (> 55%). In terms of PA management some have plans (> 30%) with zoning (>20%) and some have populations that need relocation (> 5%). As is quite apparent from the current scenario, PA management strategies need to be upgraded so that protected areas may function efficiently as systems for conservation of biodiversity.

58. **Confusion about strategy** - Eco-Development Projects (EDP) have two main thrust areas: improvement in PA management and involvement of local people. The strategy is to conserve biodiversity by addressing both the impact of local people on PA and the impact of PA on the local people. Implementation of the EDP has not been smooth because welfare activities undertaken by the project authorities are not reducing people's pressure on forests.

59. Eco-development is different from social forestry in old projects in one respect; that is, it is a non-forestry Programme implemented in villages close to forests, whereas social forestry was plantation of trees generally in areas remote from forests. However, the two share a common assumption: if resources outside forests become more productive, people will give up gathering from forests.

60. It is based on the belief that if projects support village development in the broadest way - cattle, veterinary inputs, schools, health, water, roads, etc. then people will appreciate role of the forest and help in its protection. Empirical evidence linking prosperity with reduction in gathering is not very conclusive. By itself, poverty alleviation does not reduce dependence on open resources unless people develop a sense of ownership about PAs. Only when people are given greater security of access to forest products and a sense of partnership in forest management will they develop a sense of ownership and have a greater motivation to ensure that the forest resource is not degraded. Thus JFM and EDP must go hand in hand in a complementary sense; in isolation, EDP would not be effective.

61. In the Andhra Pradesh project, an understanding of the concept of eco-development appears to be unclear as noted in the MTR (Jan-Feb 1997): "In particular it is necessary to ensure that there is a clear understanding of the concept and objectives of eco development among all staff, participating NGOs and EDCs to avoid the danger of eco development becoming a more rural development type Programme, without the direct linkage to improved PA protection and reduction of dependency on PA resources that constitute its central rationale. The Mission noted that in some cases, eco development investments were not focused on addressing the actual pressures on the PA; rather it was being directed to achieving social welfare of the local communities."

62. **Other Problems** - In addition there are problems of financial procedure and adequacy of staff. Spending

as an indicator in all states shows dismal progress. In the World Bank project, in the last three years less than Rs.25 crores has been spent on the project against a target of Rs.150 crores. During the period 1999 - 2000 an amount of Rs.100 crores was to be spent on the project, but the expected real spending is only a quarter of the amount. Government of Rajasthan has not released any money for the eco-development project this year; so has Government of Bihar for the past two years. The project is scheduled to be completed by September 2001. Expectations from this project seem to be low. Many feel that only 10% of the objectives would be achieved by then.

63. Although the main premise of the project is to involve local communities in management, at the village level people have not understood the project objectives at all. It is estimated that only 10% would have any rudimentary understanding of what the project is about.

64. Even though there are components in the project where coordination with the Department of Rural Development is required, no complementarity exists between the two departments. West Bengal is the only state that is approaching the project through its Village Panchayats.

65. Forest offices in reserved areas also are usually short of staff; even the sanctioned posts are not filled. For example, the forest offices in the Corbett National Park and at the Kaziranga National Park are 20% short of the staff sanctioned for them. Therefore, even when the funds are available, the forest department cannot spend it.

66. The ecodevelopment project has a component of voluntary relocation of the local communities. However, in reserved areas like Buxa and Palamau, there is no space to relocate these people. In the case of Buxa, during pre-independence times the Forest Department had settled villages within the forest to help in the harvesting; now, it wishes to relocate them. Along with the problem of no available space, the people who are now living within the reserved area will not be willing to move out.

Summing up

67. Subsidies which encourage inefficient resource allocation and sub-optimal use of finite natural resources should be phased out especially in water, energy, fertilizers etc. Personal automobiles are to be discouraged through fiscal policies. User charges based on Long Run Marginal Cost of resources are essential. Tradable Emission rights and markets for environmental resources need to be evolved. Incentives for clean process and green products need to be introduced. Unless environment measures make good business sense and improve the bottom-line, in the long-run industry will continue to evade its corporate responsibility especially when the cost of penalty is lower than that of compliance and the enforcement system is weak. Focussed research in industrial economics is called for.

68. On the whole, performance in forestry in India has been satisfactory, but it has not been able to realise the full potential of this sector, particularly the poverty alleviation focus of the 1988 Indian Forest Policy.

69. India could have been on the verge of achieving a revolution in forestry, both in producing market oriented products on farms and in protecting forests for environmental benefits and for sustaining the livelihoods of the forest dwellers if only appropriate lessons from the experience of the last two decades were drawn by governments. We have failed to consolidate on both the spectacular success of farm forestry and the current happy phase of JFM by not making strategic policy shifts and undertaking long term planning.

CHAPTER 23

TOURISM

Tourism has emerged as one of world's largest industries and a fastest growing sector of the world economy; tourism receipts account for a little over 8% of world export of goods and more than 34% of world export of services. In India, however, the sector has failed to receive due importance on the country's development agenda. Employing only 2.4% of the Indian workforce, the vast potential of tourism as an instrument of employment generation and poverty alleviation has tended to remain largely unutilized. Of the 625 million world tourist arrivals in 1998, India received a meagre 2.36 million or 0.38% of the total world tourist arrivals and only 0.62% of world tourist receipts. Compared to other countries in the region India's performance in the sector has been rather poor. Major causes cited for the low performance are lack of professionalism, unhygienic conditions, poor infrastructure, lack of easily accessible information, lack of safety, poor visitor experience, restrictive air transport policy, inadequate facilitation services, multiplicity of taxes and the low priority accorded to tourism. However, despite its tiny share of world tourist arrivals, tourism in India has emerged the second largest foreign exchange earner for the country even though the mainstay of the Tourism industry in India continues to be domestic tourism.

2. Domestic tourists (excluding religious tourists), who stayed in accommodation establishments, increased from 109.2 million in number in 1993 to 159.9 million in 1997, registering an annual rate of growth of 10%. That growth rate declined to 9.35% in 1999 when an estimated 175.4 million domestic tourist visits were recorded. The foreign tourist arrivals to India grew from 1.82 million in 1992-93 to 2.33 million in 1996-97, registering an average annual growth rate of 6.37% during the Eighth Five Year Plan Period. In first two years of the Ninth Plan, the growth rate declined to 1.49% and an estimated 2.40 million foreign tourist arrivals were recorded in 1998-99. The international tourist arrivals at world's top tourism destinations in comparison with India are given at Annexure-I. A very large proportion of the foreign tourists, i.e. around 91.7%, visited India for holidaying and sightseeing, followed by business travellers who constituted approximately 5.1% of the visitors. Although international arrivals are a small proportion of world tourist arrivals, international tourists have the longest stay of 29 days in India. This is reflected in the proportion of revenues being higher than percentage of world tourist arrivals. The foreign exchange earnings during the Eighth Plan period surged from Rs. 6,060 crore in 1992-93 to Rs 10,231 crore in 1996-97, achieving an annual growth rate of 13.99%. The growth rate declined to 10.99% in the first two years of the Ninth Plan and earnings in 1998-99 were estimated at Rs. 12,604 crore. The sector provided direct employment to about 14.79 million people during 1998-99.

3. The Ninth Plan envisages the Government playing a role of facilitator for private sector participation in the development of tourism. The Plan seeks to diversify the tourism product by encouraging rural and village tourism, pilgrim and spiritual tourism, adventure and eco tourism, indigenous and natural health tourism, heritage tourism and youth and senior citizens' packages. The outlay for the Central Sector in the Ninth Plan is Rs. 793.75 crore, comprising a budgetary support of Rs. 485.75 crores and internal and extra budgetary resources of Rs. 308 crores. The main schemes of the Ministry of Tourism relate to infrastructure development, human resource development and publicity and marketing. The scheme-wise details of the Ninth Plan outlay and the Annual Plan outlays and

Policy for Tourism Promotion

- A National Policy on Tourism was formulated in 1982 focusing on the development of travel circuits and assigned the responsibility of promoting international tourism to the Central Government and domestic tourism to the State Governments.
- Tourism was given the status of an 'industry' in 1986 and became eligible for several incentives and facilities including tax incentives, subsidies, priorities in the sanctioning of loans by the State financial institutions and preferences in providing electricity and water connections.
- Tourism was made a priority sector for foreign direct investment in 1991 making it eligible for automatic approvals upto 51% of the equity.
- A National Strategy for Tourism Development was evolved in 1996, which advocated the strengthening of an institutional set-up in human resource development, setting up of an Advisory Board of Tourism Industry and Trade (which has since been set up), the integrated development of tourist destinations and the promotion of private sector in tourism development.
- Tourism was granted 'Export House' status in 1998 making hotels, travel agents, tour operators and tourist transport operators eligible for such recognition entitling them to various incentives.
- In order to take advantage of the liberalised economic regime and the developments taking place around the world, a new National Tourism Policy is under consideration of the Government.

expenditure incurred/anticipated during first-three years of the Ninth Plan are given at the Annexure-II.

Development of infrastructure

4. Ministry of Tourism has identified 21 circuits and 12 destinations for development. Financial assistance is provided to State/Union Territory (UT) Governments for developing tourist infrastructure at these places. In first three years of the Ninth Plan, 779 projects have been taken up. It has been observed that many States, particularly in the North-Eastern region, could not avail themselves of the financial assistance provided under the scheme because they could not find the required matching contribution for projects prioritized under the scheme. There is a need for modifying the pattern of funding under the scheme to enable all such States to benefit from it. The scheme stipulates transfer of land ownership in respect of those projects in the name of the Central Government. The stipulation is acting as a deterrent in the operation of the scheme as the States face legal difficulties in transferring the land ownership. Ministry of Tourism needs to take urgent action to waive the condition. The Ministry has envisaged an equity scheme for attracting funds from financial institutions but the scheme has not made much headway because the State Governments have not been able to put up financially viable projects. There is a need to evaluate the scheme.

Human Resource Development

5. The hospitality and service sector has assumed high priority with the growth of tourism and the diversification of tourism activities. At present, the Ministry of Tourism is running 21 Institutes of Hotel Management (IHMs) and Catering Technology and 14 Food craft Institutes (FCIs). The IHMs provide 3-year Diploma in Hotel Management, 1- 1/2 year Post-Graduate Diploma in Accommodation Operations, 1-1/2 year Post-Graduate Diploma in Dietetics and Hospital Food Science, 1-1/2 year Certificate course in Food Production, 6- month Certificate course in Food & Beverage Services, 6- month Certificate course in Hotel and Catering Management, 1-1/2-year Post Diploma in Hotel Administration and P.G. Diploma in Fast Food Operations. The FCIs are engaged in providing the craft Diploma in Cookery, Food & Beverage Service/ Restaurant & Counter service, Reception & Book Keeping, House Keeping and Bakery & Confectionery. The trained manpower released during the Eighth Plan period was 7168 persons. The tentative target in the Ninth Plan is to produce 12000 Diploma holders in Hotel Management and 16000 manpower in other crafts courses. A majority of Institutes operated by the Ministry have attained self-sufficiency in meeting the revenue expenditure. No new IHMs are proposed to be set up in the Ninth Plan period. In view of the employment generation potential of the craft level trained manpower, 15 new FCIs are to be set up in the Ninth Plan. The training courses run by the Institutes should be designed to suit the needs of the various target groups.

Publicity & Marketing

6. There is fierce competition in tourist generating markets from several nations for attracting traffic to their countries. Ministry of Tourism conducts overseas publicity through a network of 18 Government of India Tourist Offices located abroad. The promotional expenditure on the overseas offices, which was Rs. 47 crore in the terminal year of the Eighth Plan increased in the Ninth Plan period to Rs. 52.2 crores (Revised Estimates) in 1999-2000, accounting for 47.45% of the total plan allocation in that year. There is a need to examine cost effectiveness of the expenditure incurred on overseas publicity. The Ministry of Tourism also provides financial assistance to the State Governments for promotion of select fairs and festivals and rural craft Melas in the country. These fairs and festivals play a positive role in developing tourism by providing cultural glimpses of the States to tourists and generate local income and employment.

Corrective measures proposed

Restrictive Air Transport Policy

7. Air seat capacity constraints have been noticed on several international sectors connecting India. Air India, however, has not been able to take full advantage of the capacity available to it under the various bilateral agreements due to fleet limitations and low level of efficiency. A number of foreign airlines have shown interest in expanding seat capacities on the various sectors. Ministry of Civil Aviation, however, is denying international carriers additional flights for fear of diverting traffic away from Air India. The non-availability of adequate air seat capacity is constraining the growth of tourism in the country. In the interest of the development of tourism and trade, a liberal policy of allowing capacity expansions by scheduled airlines needs to be followed.

Inadequate Facilitation Services

8. The facilitation services in the country are quite inadequate. The poor airport facilities are a constraint in the development of tourism. The airport infrastructure services need to be improved and modernized. The Ministry of External Affairs and the Ministry of Home Affairs can consider liberalisation of the system for issue of visa/

permit. Streamlining the process of migration/customs clearance and prevention of touting and misguiding of tourists are also essential.

Multiplicity of Taxes

9. A multiplicity of taxes exists in the tourism sector. The quantum of taxes also varies from place to place. This creates hurdle in packaging of the tourism product and is also irksome to the tourist; it makes the product expensive as well. The taxes in the sector, therefore, need to be rationalized and reduced for end-customer to make the destination competitive. Further, some uniformity in taxes on tourist transport should be adopted to facilitate free flow of tourist traffic across the State borders.

Need for Publicity through Internet

10. In order to make effective use of the resources for overseas publicity, the application of information technology needs to be promoted in the sector. It may be advantageous to close the Government of India Tourist Offices overseas and promote publicity through the Internet and television. The Ministry of Tourism launched a web-site in January 1999. The tourist offices abroad are likely to become redundant with the improvement of the website.

Priority for Tourism

11. In spite of the repeated role of tourism in employment generation and socio-economic development in the country, tourism has not attracted the desired priority. It is necessary to focus attention on the potential role of tourism as an effective instrument of employment generation, particularly in backward areas.

Perspective Plans and Sustainability Perspective in Tourism

12. Haphazard and uncontrolled growth can destroy the very base on which tourism is built and poor planning can cause considerable damage as noticed at the places of tourist interest in States of Himachal Pradesh, Goa and Jammu & Kashmir. Tourism development should be based on perspective plans prepared with appropriate technical and professional assistance. The plans/projects must include environmental impact studies, carrying capacity studies, instruments of spatial and land use planning, instruments of architectural controls, strategy for preparing the local community to safeguard its cultural identity and awareness programmes for local participation and local commitment to the project.

Village and Rural Tourism

13. Rural tourism needs to be given an impetus by earmarking funds for pilot projects on the basis of a model plan for each State for the purpose. These villages can be taken up for priority development particularly if the projects can be linked with the restoration of heritage properties in the area. This would provide a boost to local performing arts and help conserve the local culture apart from preventing rural-urban migration.

14. Local people in the rural areas should be encouraged to participate in tourism related projects, which may preferably be formulated by the tourist officials in consultation with locals and NGOs. These projects could be in the nature of providing glimpse of the village ambience and the tourists presented with local cuisine, art and culture by persons in local costumes engaging in the daily activities of cooking, weaving, dancing etc.. Moderate, but clean, accommodations for tourists should be constructed by villagers in traditional design and architecture. Bank finances should be made available at attractive terms and conditions for promotion of such projects.

Action Points in Tourism Development

- Liberalise India's skies to increase air seat capacity.
- Have a visa-less/visa-on-arrival facility for tourists from selected countries.
- Improve and modernize airport infrastructure and services.
- Allow free inter-State tourist vehicle movement.
- Rationalise and reduce taxes for end customer to make destination competitive.
- Close down Government of India Tourist Offices located overseas and make publicity increasingly through Inter-net and other electronic media.
- Make tourism a national strategic priority for employment generation.
- Incorporate sustainability perspective in tourism development plans/projects to prevent the kind of environmental degradation that have taken place at Himachal Pradesh, Goa and Jammu & Kashmir.
- Provide impetus to rural tourism by linking village development with restoration of heritage properties.
- Create public awareness about economic and social benefits of tourism.

Tourism potential in the North East

15. Although the North-East could be developed as a tourist haven by virtue of its topographic advantages, diverse cultures and its pristine areas unspoilt by pollution, tourism development has tended to elude it. The Plan expenditure incurred on the schemes operated in the N.E. States has been only about 30% of the amount sanctioned during first three years of the Ninth Plan. The concept of

non-lapsabie funds, introduced to ensure utilization of the funds, is meaningless if it does not translate into concrete development. A revision in policy is required.

India Tourism Development Corporation Ltd. (ITDC)

16. The financial performance of ITDC improved during the Eighth Plan period and the net profit after tax increased from Rs. 10.05 crore in 1992-93 to Rs. 55.80 crore in 1996-97. In first two years of the Ninth Plan the profit after tax declined from Rs.43.30 crore in 1997-98 to Rs. 10.81 crore in 1998-99. ITDC would be required to intensify its efforts for economy in expenditure and grabbing more business through new initiatives in the face of competition by private sector. On the recommendations of Disinvestment Commission, the Government has taken a decision to disinvest in ITDC. Expeditious action is required in this direction.

Conclusions

17. The tourism sector has immense backward and forward linkages in terms of both income and employment and can contribute significantly to the economy. An imaginative and innovative approach keeping in view the socio-demographic changes taking place world-wide and an efficient information system would yield better results. At the same time, the need for sound perspective planning with local participation is imperative.

Annexure -I

WORLD TOP TOURISM DESTINATIONS IN COMPARISON WITH INDIA
International Tourists Arrivals (excluding same day visitors)

Rank 1990	Rank 1995	Rank 1998	Countries	Arrivals (in million) 1998	%change 1998-97	% of Total 1998
1	1	1	France	70	4.70%	11.20%
3	3	2	Spain	47.7	10.00%	7.60%
2	2	3	Unites States	47.1	-1.30%	7.50%
4	4	4	Italy	34.8	2.20%	5.60%
7	5	5	United Kingdom	25.5	-0.20%	4.10%
12	8	6	China	24	1.00%	3.80%
8	7	7	Mexico	19.3	-0.30%	3.10%
27	9	8	Poland	18.8	-3.60%	3.00%
10	11	9	Canada	18.7	7.90%	3.00%
6	10	10	Austria	17.3	3.80%	2.80%
9	13	11	Germany	16.5	4.20%	2.60%
16	12	12	Czech Republic	16.3	-3.00%	2.60%
17(1)	18	13	Russian Federation	15.8	3.00%	2.50%
5	6	14	Hungary	14.7	-15.00%	2.30%
14	17	15	Portugal	11.8	16.00%	1.90%
13	16	16	Greece	11.1	10.00%	1.80%
11	14	17	Switzerland	11	4.00%	1.80%
19	15	18	China (Hongkong)	9.6	-7.70%	1.50%
24	20	19	Turkey	9.2	1.80%	1.50%
21	21	20	Thailand	7.7	6.90%	1.20%
		40+	**India**	**2.4**	**-0.50%**	**0.40%**
			Sub Total	449.3		71.90%
			Other Countries	175.9		28.10%
			World Total	**625.2**	**2.40%**	**100.00%**

Source - World Tourism Organisation

Annexure - II

OUTLAY AND EXPENDITURE CENTRE: TOURISM

S. N.	Schemes	Ninth Plan Apprvd. Outlay	1997-98		1998-99		1999-2000
			Apprvd. Outlay	Actual Expd.	Apprvd. Outlay	Revised Estimates	Apprvd. Outlay
1	**Paryatan Bhawan**	30.00	0.00	0.00	0.00	0.00	0.05
2	**Central Assistance for the development of facilities for domestic tourists**	105.00	21.00	18.97	46.00	34.00	53.20
3	**Product Development**	20.00	4.50	4.26	6.30	5.50	6.50
3.1	Refurbishment of Monuments/ SEL shows/ Floodlighting.	11.00	3.00	3.17	4.30	3.75	4.30
3.2	Adventure Tourism	6.00	1.00	1.07	1.75	1.75	1.75
3.3	Pilgrim and Spiritual Tourism	3.00	0.50	0.02	0.25	0.00	0.45
4	**Mega Tourism Projects.**	5.00	0.00	0.00	0.00	0.00	0.00
5	**Human resource development**	60.00	15.00	8.27	16.00	9.00	16.00
5.1	Institutes of Hotel Management	46.00	12.00	6.92	12.00	7.00	12.00
5.2	New Foodcraft Institutes	1.00	0.10	0.00	0.20	0.00	0.20
5.3	Indian Institute of Tourism & Travel Management including National Institute of Water Sports.	12.00	2.30	1.35	3.50	2.00	3.50
5.4	Training of Officers and Guides	1.00	0.60	0.00	0.30	0.00	0.30
6	**Promotion and Marketing**	244.43	63.00	62.36	85.00	58.50	77.80
6.1	Overseas Promotion	204.43	57.00	57.69	75.00	53.00	67.80
6.2	Production of Literature	10.00	2.00	1.99	4.50	2.90	4.00
6.3	Hospitality Programme	10.00	1.00	0.42	1.50	0.60	1.50
6.4	Assistance to States for Fairs & Festivals and Rural Craft Melas	12.00	1.50	*	*	*	*
6.5	Domestic Campaigns	8.00	1.50	* 2.26	* 4.00	* 2.00	* 4.50
7	**Research,Computerisation & Monitoring**	3.00	0.50	0.54	1.50	0.50	1.70
8	**Subsidies & Incentives**	15.00	4.00	3.65	5.00	2.00	5.00
9	**Strengthening of Organisation**	2.00	2.00	0.00	0.20	0.00	0.00
10	**Externally Aided Projects**	1.32	0.35	0.08	0.50	0.50	0.25
	TOTAL	**485.75**	**110.35**	**98.13**	**160.50**	**110.00**	**160.50**
11	**ITDC**	308.00	70.00	16.28	70.00	28.30	70.00
	GRAND TOTAL	**793.75**	**180.35**	**114.41**	**230.50**	**138.30**	**230.50**

*The figures of outlay/expenditure for Domestic Campaigns, given at S.No.6.5, include outlay/ expenditure for Assistance to States for Fairs & Festivals and Rural Craft Melas (S.No.6.4).

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CHAPTER 24

ENERGY

The Ninth Five Year Plan envisaged substantial additions to capacity and production in the energy sector. The Mid-term review indicates there would be significant shortfalls in capacity in critical sectors. Capacity expansion in the Power Sector is much below expectations. The achievements in the State Sector will be close to target but there are significant shortfalls in the Central Sector and in the Private Sector. Poor financial health and accumulated losses of the State Electricity Boards (SEBs) continues to be a cause of serious concern. The process of reforms, including especially the setting up of regulatory authorities in power sector has been initiated but much more remains to be done. The progress of rural electrification programme continues to be far from satisfactory.

2. In the petroleum sector refining capacity is expected to exceed targets mainly because of over achievement in the private sector. The areas of concern, however, are stagnating indigenous production of crude oil, lower reserves accretion, increasing imports and the recent steep increase of international oil prices. An ambitious programme of reforms in the petroleum sector have been initiated and the sector is proposed to be fully deregulated by the end of Ninth Plan, but implementation of the proposed dismantling of the administrative price mechanism (APM) has slipped in some areas.

3. Coal continues to remain the main source of commercial energy in the country. There have been shortfalls in coal consumption mainly due to sluggishness in the industrial sector, non-materialisation of envisaged new coal based thermal capacity additions and imports of coal. This resulted in lower production of coal in first two years of the Plan and downward revision of demand projections and production targets. The legislative amendments to permit private sector in commercial coal mining have not come through. Efforts have been initiated to expedite the exploration activities for upgradation of reserves to proven category in areas outside the leasehold of National Coal Companies (NCC).

Trends in Primary Commercial Energy Supply

4. Trends in the primary commercial energy supply during first three years of the Plan are given in Table 1. As can be seen, the primary energy availability registered an annual average growth rate of 5.2% as against the anticipated annual growth rate of 6.8% for the Plan period as a whole. The growth rate of GDP in this period was 5.9% which is also lower than the Plan target of 6.5%. However, it does appear that the elasticity of demand for primary energy is somewhat lower than was envisaged when the Plan was formulated.

Table 1
Trends in Supply of Primary Commercial Energy

	1996-97 Actual	1997-98 Actual	1998-99 Actual	(MTOE) 1999-2000 Actual
Indigenous Production				
Coal	122.80	127.17	125.61	128.88
Lignite	6.05	4.86	4.88	4.70
Crude Oil	32.90	33.83	32.91	33.04
Natural Gas	18.89	22.57	23.45	24.03
Hydro Power	5.90	6.42	7.12	6.98
Nuclear Power	2.35	2.62	3.13	2.87
Total	188.89	197.47	197.10	200.50
Net Imports	57.23	58.33	66.06	84.90
Stock Changes (-)	6.21	6.00	6.54	6.2
International Bunkers (-)	0.16	0.10	0.10	0.1*
Total Commercial Energy Supply	239.75	249.70	256.52	279.10

** Estimated*

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Requirements of Primary Commercial Energy

(i) Petroleum

5. As per initial estimates, the demand of petroleum products was estimated to be 104.8 million tonnes (excluding liquid fuel requirement for power generation) in terminal year of the Plan. The actual growth rate during first three years of the Ninth Plan works out to 6.8%. If this growth trend continues, the consumption of petroleum products would be about 110 million tonnes during the year 2001-02, including liquid fuel requirement for power generation.

6. The projected crude oil and natural gas production from indigenous sources at terminal year of the was 36.98 million metric tons (MMT) and 30.70 BCM respectively. The actual production during 1997-98 and 1998-99 has been lower than the targets and as such the Plan target may not be achieved.

7. The refining capacity was targeted to increase from 61.5 MMT in 1997-98 to 113.95 MMT by terminal year of the Ninth Plan but the present estimates indicate that the capacity may go up to 129.04 MMT by end of the Plan and is expected to be more than adequate to meet the domestic demand.

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Dependence on Imports

8. In view of the stagnant domestic oil production, higher oil imports appear inevitable. Hence, the energy import dependence was expected to increase from about 25 percent at the end of Eighth Plan to about 28 per cent by the end of Ninth Plan. The actual imports of crude oil and petroleum products during 1998-99 were 39.8 MMT and 18.09 MMT respectively. It is estimated that 63.94 MMT of crude oil and 10.36 MMT of petroleum products would be imported during 1999-2000. In addition, 5.70 MMT of petroleum products would be imported by private sector. If the same trend continues, the import requirement of crude oil during the terminal year of Ninth Plan would be in the range of 85-90 MMT depending upon the level of operation of refineries.

(ii) Coal

9. Coal consumption in first two years of the Plan registered a negative growth of 0.8% against the envisaged average annual compounded growth of 6.85%. Main reasons for shortfall have been sluggishness in the industrial sector, slippage in the materialization of new coal- based thermal power stations, lower coal offtake by the power sector due to resource constraints, lower offtake by steel sector due to slump in the demand for steel and lower offtake by cement sector due to recourse to duty free imports of coal against cement exports. The downward revision of sectoral targets of the major coal consumers like Power and Steel has necessitated revision of the Ninth Plan target of coal demand, which is now fixed at 370.80 million tones (mt) excluding 7.7 mt. washery middlings in the terminal year, implying a revised growth rate of 4.6% against 6.85% envisaged initially. Correspondingly, the coal production target in 2001-2002 has been revised from 370.60 mt to 328.86 mt implying a growth of 2.86% against 5.34% envisaged initially.

(iii) Electricity

10. The Ninth Plan envisaged a power generation target of 662 billion Kwh at the terminal year, of which 606.7 billion Kwh is targeted from the utilities and the balance from non-utilities. The annual growth rate of electricity generation for first three years of the Plan from the utilities works out to about 6.8 percent as against the targeted estimates of 9 percent growth rate per annum. If the same trend continues, the generation from the utilities in 2001-02 would be of the order of 527 billion Kwh as against the initial estimates of 606.7 billion Kwh implying a shortfall of about 79 billion Kwh. However, the non-utilities sector is likely to achieve the target of 55.3 billion Kwh in 2001-02.

11. The Ninth Plan envisaged a capacity addition target of 40,245 MW. A capacity addition of 12,035 MW has been realized in first three years of the Plan. It is estimated that the feasible capacity addition for the remaining two years would be of the order of 12,274 MW making a total feasible capacity addition of 24,309 MW during the Ninth Plan achieving 60% of the Plan target.

12. The Ninth Plan envisaged a total import requirement of 78 MMT of crude oil, 21.3 MMT of coal and 2 BKwh of electricity from Bhutan in the terminal year of the Plan. The revised estimates of the Ninth Plan indicate a requirement of 89 MMT of crude oil, 14.51 MMT of coal and 1.5 BKwh of electricity from Bhutan. Table 2 above summarises the production, consumption and import requirement of commercial energy in terminal year of the Ninth Plan.

Table 2

Production, Consumption and Import Requirement of Primary Commercial Energy in 2001-02

	As per Ninth Plan	As per Mid-Term Rev.	Additional Imports
COAL			
- Production (MMT)	370.6	328.86	
- Demand/Consumption (MMT)	412.2	370.80	
- Imports (MMT)	21.3	14.51	Nil
LIGNITE			
- Production (MMT)	45.0	45.00	
CRUDE OIL			
- Production (MMT)	37.0	35.65	
- Consumption (MMT)	104.8*	110.00	
- Imports (MMT)	78.0	89.00	11
NATURAL GAS			
- Production (MCM)	29165.0	27500.00	
Electricity			
Hydro Capacity (MW)	31464.5	29610.30	
Nuclear Capacity (MW)	3105.0	3105.00	
Wind Generation (GWH)	1150.0	1150.00	

*Note:- * Excluding demand for power generation*

Final Commercial Energy Consumption

13. The share of coal is declining in the final commercial energy consumption while that of oil & gas and electricity is increasing. Oil and gas accounted for nearly 54 percent of the final energy consumption in 1996-97. The demand for commercial energy for final consumption in the Ninth Plan depends upon the rate of growth in the economy and the concomitant demand from different consuming sectors. Table 3 gives the final commercial energy consumption estimated on the basis of end-use analysis and co-relation of the past consumption with GDP growth at the end of Ninth Plan . The revised estimates are based on the assumptions considered for the Ninth Plan projections.

Table 3

Projected Demand for Final Consumption of Commercial Energy in Ninth Plan

		As per Ninth Plan	As per Mid-Term Review
Electricity	(BKwh)	496.1	434.9
Petroleum Products	(MMT)*	104.8	110.0**
Coal	(MMT)*	114.0	110.0
Natural Gas	(BCM)*	15.73	14.5

*Note * Excluding demand for power generation*
*** Including demand for power generation*

14. At present, about 70 percent of the coal consumption, 4.5 per cent of liquid fuels consumption and about 40 percent of natural gas consumption are for power generation.

15. The Mid-Term Review shows that the final commercial energy consumption is lower in cases of coal, natural gas and electricity. As far as coal is concerned, the direct consumption requirements have come down in power and industrial sectors. The increase in demand for petroleum products is mainly accounted for by transport and power sectors.

16. The mid-term appraisal of various sub-sectors of energy sector is given in the following paras.

POWER SECTOR

Targets and Thrust Areas

17. The main thrust areas in Power Sector are: accelerated completion of ongoing projects, maximisation of benefits from existing plants, setting up of appropriate institutional and legislative mechanism for reforms and restructuring of the power sector, improving the reliability and quality of power supplies to consumers, undertaking advance action on hydel projects, setting up of high-capacity inter-regional transmission links to facilitate evacuation of power from mega projects , formation of an integrated National Grid, streamlining procedures for clearances and investment decisions in public sector and encouragement to captive and co-generation power plants.

The Mid-Term Review_:

Generation

18. Against a targeted growth rate of 9 % during the Plan, the electricity generation during first three years in public utilities was about 6.76% (say 6.8%) annually. If the trend continues, generation by utilities in 2001-2002 may be of the order of 527 billion kwh against the target of 606 billion kwh from the utilities, i.e. a shortfall of 79 billion kwh.

19. Going by the present trends, the generation from non-utilities, however, is expected to achieve the target of 55.3 billion kwh . .

Capacity Addition

20. Tables 4 & 5 below indicate the targets and achievements for capacity addition during first three years and likely achievement for the last two years of the Plan period. Expected achievement in the 9th Plan period is 92% for the State Sector, 56% for the Central Sector and

only 44% in the Private Sector. Private Sector projects have not come up as expected mainly because the policy framework needed to encourage private investment, has not yet been put in place. The poor financial condition of the SEBs is a major constraint on achieving financial closure.

21. Slippages in hydel capacity would be 19% and in thermal capacity a high 48% . A nuclear energy capacity addition of 880 MWs would be fructified during the plan period. Sector-wise percentage slippages are: Central 44 percent, States around 8 percent and Private 56 percent. The slippages in State sector are low as most of the projects are carried forward from the Eighth Plan. However, the high level of slippages in Central and Private sector projects are a major cause of concern. The main reason for private sector slippage is non-achievement of financial closure of the projects.

Renovation & Modernisation (R&M) Programme

Thermal Power Stations

22. The All-India average Plant Load Factor (PLF) of thermal power plants increased from 55.3% to 64.4% during Eighth Plan. This was primarily due to Renovation and Modernisation efforts. While Phase-I of R&M has been completed, Phase-II is under implementation by Ministry of Power/CEA (Central Electricity Authority) in consultation with State Governments. This Phase covers 44 Thermal Stations (consisting of 198 Thermal Units with a total capacity of 20,869.435 MW). After the completion, the programme promises: (i) additional generation of 7,864 MU/Year (ii) increase of 100 MW peaking capacity and (iii) life extension of 24 Thermal Units by 15-20 Years.

Hydro Electric Power Stations

23. The programme for R&M and uprating of Hydro Power Stations covers 55 identified schemes (210 nos. of generating units) with an aggregate capacity of 9653 MW. . The estimated cost of these schemes adds up to Rs.1,493 crore and the schemes are to offer 2431 MW/ 7181 MU. Work on 25 of those schemes — with an aggregate installed capacity of 5791 MW – has been completed at an estimated cost of Rs.465.37 crore and the expected benefit is 1303.48 MW/3262 MU. The remaining hydro R&M schemes need to be expedited during rest of the Plan period.

TABLE – 4

Targets and Achievements in capacity additions in the Ninth Plan Period

(in MW)

	9th Plan Target	1997-98 Actual	1998-99 Actual	1999-2000 Actual	2000-01 Target	2001-02 Likely	9th Plan Revised
Centre	11909	333	992	1615	659	3115	6714 (56.38)
State/UTs	10748	1676	1675	2329	2415	1798	9893 (92.05)
Private	17588	1277	1575	563	926	3361	7702 (43.79)
TOTAL	**40245**	**3286**	**4242**	**4507**	**4000**	**8274**	**24309 (60.40)**

(The figures in the brackets indicate achievement in terms of percentage)

TABLE - 5

Generating Capacity Anticipated at the end of the Ninth Plan (in MW)

	Hydro	Thermal	Nuclear	Total
Capacity as on 31.3.1997	**21658.1**	**61912.3**	**2225.0**	**85795.4**
Likely Addition during Ninth Plan	*7952.2*	*15477.2*	*880.0*	*24309.4*
Total Installed Capacity On 31.3.2002	**29610.3**	**77389.5**	**3105.0**	**110104.8**

PROGRESS AT A GLANCE

- Against the Plan target of 40,245 MW capacity addition the anticipated achievement is expected to be 24309 MW or 60.4%.
- Capacity addition in the Central sector would be 6714 MW (56.4%) against 11,909 MW.
- Capacity addition in State Sector would be 9893 MW (92.0%) as against the target capacity of 10,748 MW.
- Capacity addition in the private sector is expected to be 7702 MW which is only about 44% of the target of 17588 MW. The major reason for the large shortfall in the private sector is the financial unviability of the SEBs which makes it difficult even for approved private sector projects to achieve financial closures.
- The slippages in the case of hydro capacity would be about 19% and for thermal capacity as high as 48%.
- The capacity addition in Nuclear Power would be achieved as envisaged.
- The financial position of SEBs is a matter of grave concern. The Internal Resources of the SEBs continue to be negative. It was expected to be (-) Rs. 3399 crore in 1998-99 and the commercial losses (without subsidy) (-) Rs. 18081 crore during the same period. In order to achieve 3% ROR on the net fixed assets as envisaged in the Electricity (Supply) Act, 1948, the average tariff needs to be increased by 60 paise/unit on All-India basis (ranging from 23.8 paise/unit to 261.7 paise/unit).
- The likely achievement of village electrification during the Plan period would be 43% and of pumpset energisation 75% of the target envisaged for the Ninth Plan period.

Share of Hydel Generation

24. Hydel generation had a 41% share at the beginning of Sixth Plan; it came down to 25.2% when the Ninth Plan began. However, with a feasible capacity addition (7952 MW), this share would improve to 26.9% by end of the Ninth Plan period.

25. As per Central Government's Mega Power Policy, benefits to Hydro Projects apply to 500 MW capacity and above supplying power to more than one State in case of Central/Private sector projects . This facility should also be extended to joint sector projects. Alongside, the potential for pumped storage schemes also merits consideration. Since the power supplied by pumped storage plants during peak hours is costlier, time of the day (ToD) metering needs to be made compulsory to absorb such power so as to obtain maximum economic benefits. Further, there is also a need to encourage pumped storage scheme with

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TABLE – 6
FINANCIAL PERFORMANCE OF THE STATE POWER SECTOR

(Rs. Crore)

	1991-92	1998-99	1999-2000 (RE)	2000-01 (AP)
A. Gross Subsidy involved				
(i) On account of sale of electricity to				
(a) Agriculture	5938.00	22536.86	25576.68	28217.24
(b) Domestic	1310.00	7270.13	7892.87	9387.14
(c) Inter-State Sales	201.00	538.44	351.07	357.75
Total	7449.00	30345.43	33820.62	37962.13
(ii) Subventions Received from State Govts.	2045.00	7851.87	4707.23	5562.55
(iii) Net Subsidy	5404.00	22493.56	29113.39	32399.58
(iv) Surplus Generated by sale to other sectors	2173.00	6876.82	6090.61	6901.73
(v) Uncovered Subsidy	3231.00	15616.74	23022.78	25497.85
B. Commercial Losses @	4117.00	18081.29	20706.58	22346.32
C. Revenue Mobilisation				
(i) Rate of Return (ROR) %	-12.70	-27.51	-31.00	-30.66
(ii) Additional Revenue Mobilisation from achieving				
(a) 3% ROR	4959.00	19987.06	22709.86	24533.04
(b) From introducing 50 paise/unit from Agriculture/Irrigation	2176.00	2734.14	2912.67	2746.47

suitable incentives as applicable to mega power projects.

26. For the development of hydro power, the Centre announced a Hydro Power Policy in August, 1998 which envisages creation of a 'Power Development Fund'. The dedicated fund would be used for carrying out activities like developing hydro power projects. The policy needs to be implemented with all seriousness.

Financial Performance of State Electricity Boards

27. The financial health of the SEBs has deteriorated over the years due to low tariff and large subsidies in agriculture and domestic sectors and poor operational efficiency. Table 6 gives the financial performance of the State power sector The commercial losses of SEBs have increased from Rs.4117 crore in 1991-92 to an estimated Rs.20,707 crore in 1999-2000. The net subsidy of Rs. 5,404 crores on agriculture and domestic sectors in 1991-92 — at 50% of Central Plan Assistance flowing to States/ Union Territories (UTs) — has jumped several fold to Rs. 29,113.4 crores in 1999-2000 which is more than 88% of the funds flowing from Central Plan Assistance to States/ UTs during the year. This is a matter of concern and needs to be arrested.

Plan Outlays

28. The Ninth Plan-approved outlay for power sector is Rs 1,24,526.41 crore representing 14.5% of total public sector outlay. Tables 7 & 8 below indicate the progress

TABLE – 7

Plan Expditure during first 3 years of the Ninth Plan and expected level in last 2 years

(figures in brackets are at 1996-97 price level)

S. No.	Year	Central	State	Total
1	9th Plan (Approved)	(53,299)	(71,227)	(1,24,526)
2	1997-98 (Actual)/R.E	6844 (6479)	11,893 (11,258)	18,737 (17,737)
3	1998-99 (Actual/R.E)	8157 (7230)	13,244 (11,738)	21,401 (18,968)
4	1999-2000 (R.E)/Appd.	9,367 (7832)	15,594 (13,039)	24,961 (20,871)
5	First 3 Years (1997-2000)	(21,541)	(36,035)	(57,576)
6	Expected In last 2 years	(25,063)	(30,600)	(55,663)
7	Likely investment	(46.604)	(66,635)	(1,13,239)
8	(%) Utilisation	87.4	93.6	90.9

TABLE - 8

Financing of Central Sector Investment during Ninth Plan

Sl.	YEAR	IEBR	GBS	Outlay
1.	9th Plan (Approved)	(34714)	(18586)	(53299)
2.	1997-98 (Actual)	3709 (3511)	3135 (2968)	6844 (6479)
3.	1998-99 (Actual)	4703 (4169)	3454 (3061)	8157 (7230)
4.	1999-2000 (R.E)	5712 (4776)	3655 (3056)	9367 (7832)
5.	First 3 Years (1997-2000)	14124 (12456)	10244 (9085)	24368 (21541)
6.	Expected In last 2 years	(17463)	(7600)*	(25063)
7.	Likely investment	(29919)	(16685)	(46604)
8.	% of 9th Plan	86.2	89.8	87.4

* *Assumes @ 10% growth in nominal terms over the level of 1999-2000.*

on Plan expenditure (State & Centre) and financing of Central Sector :-

Nuclear Power

29. The operational performance of nuclear power stations in first two years of the h Plan has improved quite significantly compared to the Eighth Plan. The average PLF of existing nuclear power stations has increased from 55.90% in 1996-97 (at the end of the Eighth Plan) to 62.3 % in 1997-98 and 74.4% in 1998-99.

30. The approved Plan outlay for Nuclear Power is Rs 5,842 crore. The likely expenditure, at constant prices, in first 3 years of Plan is 40.5 per cent of the approved outlay as against the pro- rata level of 60 per cent.

31. Development of nuclear energy is crucial in the context of energy security and of the need for clean energy. Government has constituted a High Powered Committee to recommend development of strategies and policies for rapid development of nuclear power and to draw up a long-term plan of implementation . Typically, a nuclear power project has a gestation period which is very long — generally longer than the repayment period for resources raised for the purpose. It is, therefore, essential that concerted effort is made to design equipment parameter etc. with a view to reducing the gestation period.

Transmission & Distribution Management

32. Transmission and Distribution (T&D) losses in the system are very high at 22% and contribute to the financial weakness of the SEBs. There is also evidence that the actual level of T&D losses in the system is much higher than officially reported. For example in Orissa when T&D losses were calculated, the loss which was earlier reported at 23.8% in 1994-95 was re-estimated as 50.4% in 1996-97. This has also been found in other states. It appears that electricity supply to Agriculture, which is not metered, was being exaggerated so as to show lower levels of T&D losses. The very high level of losses on this account is partly due to technical deficiencies in the distribution system because of prolonged neglect of investment but a much larger part of the loss reflects theft of electricity, often with the connivance of the distribution staff. Privatisation of distribution and introduction of multiple players in the distribution sector would promote competition and improve efficiency in the sector which could facilitate the ultimate objective of introducing bulk/retail competition. Privatising distribution of power has significant political, social and financial implications which need to be addressed while formulating policies for distribution in each state.

33. Investment in transmission facilities – a key for the development of Power Sector — has not kept pace with investment in generation . The present level of All India T&D (transmission and distribution) losses is about 22% while the losses in some States are much higher. The Government has amended the Electricity Act 1998 to treat transmission as separate activity to facilitate private investment in this sector. It has become essential that the transmission system be planned in an integrated manner at State and Central levels for maximum economic benefits and to initiate measures to attract private investment.

34. The tax concessions as are available to generating entities should also be extended to transmission and distribution entities as otherwise States will be discouraged from initiating reforms which are perceived inevitably to increase tariffs.

Captive/Co-generation Plants

35. In the Eighth Plan period, the Central Government adopted a policy to encourage establishment of captive/co-generation plants by large industrial units to meet the rapidly increasing demand for power. Ministry of Power issued policy guidelines for sale of excess power by captive plant owners to the grid, access to the transmission grid on payment of wheeling charges, third party sales, etc. Because of these efforts, the installed capacity of non-utility power having capacity more than 1 MW increased from 9302 MW to 12,078 MW during the Eighth Plan period. However, most of the State Governments are yet to formulate clear and transparent policies for purchase of captive power which could provide fair return to the captive/co-generation power plant owner; as a result the existing capacity is being under-utilised (e.g. less than 30% in Karnataka). A clear approach would be to formulate policies and set up institutions to ensure that bulk consumers are able to buy power from suppliers of their choice.

Independent Regulatory Commissions for Power

36. An essential element in reform of the Power Sector is the establishment of independent regulatory agencies responsible for setting tariffs and regulating power purchase agreements. Accordingly, the Central Government has enacted Electricity Regulatory Commission Act, 1998 for setting up of independent regulatory bodies viz. Central Electricity Regulatory Commission (CERC) and State Electricity Regulatory Commissions (SERCs) at the Central and State levels respectively. These regulatory bodies would primarily look into all aspects of tariff fixation and matters incidental to it. CERC was constituted in July, 1998 and is in operation.

Fourteen States have set up their SERCs. The remaining States need to set up their respective SERCs at the earliest.

Reforms and Restructuring of State Electricity Boards

37. Power sector reforms aim to generate electricity at economic cost, provide reliable and high quality service to the consumers and ensure that the sector is financially viable and also offers an attractive environment to bring in private investments. Focus of reforms so far has been on promoting private investment in generation, improving regulatory environment both at Central and State levels and re-structuring/unbundling of State Electricity Boards into separate generation/transmission and distribution entities. Setting up such corporations makes it possible to monitor efficiency levels in each activity and also create appropriate incentives for efficiency in each area. Unbundliing also makes it easier to allow entry of private sector operators in each area in a suitable manner which ensures competitive environment . Several States have initiated power sector reforms along these lines. However, the progress in this respect continues to be very slow. Some State Governments have taken concrete steps towards the reforms. Other States are also taking initiatives in this regard.

Setting up Mega Power Projects

38. A Mega Power Policy was approved by the Central Government to enable setting up large capacity plants supplying power to more than one State. Such mega plants would have a capacity of 1000 MW and above in case of thermal and 500 MW and above for hydro projects. Certain incentives such as exemption from custom duty etc. would be extended to those projects. A Power Trading Corporation (PTC) envisaged by the policy will purchase power from the mega projects and sell it to the SEBs under a bilateral agreement between the PTC and the SEBs. If a SEB defaults in paying, the policy provides for

POWER SECTOR REFORMS – Where We Stand ?

- Power sector reforms were expected to focus on two thrusts. One was the establishment of rational tariff structures through independent regulatory commissions. The second was the restructuring of State Electricity Boards separating generation from transmission and distribution to bring about greater efficiency in each area. These reforms are now under way, though the process is far from complete.
- The Electricity Regulatory Commission Act, 1998, which provides for a legal basis for setting up of a Commission at the Central level and a separate Commission at the State level, is in place.
- The Central Electricity Regulatory Commission (CERC) was constituted in July, 1998 and is in operation.
- State Electricity Regulatory Commissions (SERCs) have been set up in 14 States. While Orissa, Haryana and Andhra Pradesh have set up SERCs under their own Act, the other States viz. Uttar Pradesh, Karnataka, West Bengal, Tamil Nadu, Punjab, Delhi, Gujarat, Madhya Pradesh, Arunachal Pradesh, Maharashtra and Rajasthan have set up SERCs under the Central ERC Act.
- Status on Re-structuring of SEBs

Orissa : Orissa Electricity Reforms Act, 1995 - in operation.

OSEB unbundled into:

- OHPC for hydro
- OPGC for thermal
- GRIDCO for transmission.

Orissa divided into four zones for distribution by four subsidiaries of GRIDCO (in the Joint Sector). BSES has taken over 3 zones viz. Western, North-Eastern and Southern . The Central zone has been offered to AES Ltd.

Haryana: Haryana Electricity Reform Act 1998 in operation.

HSEB unbundled into:

- HPGC for Generation
- HVPNL for Transmission & Distribution.

Two distribution companies established:

- North Discom (likely to be Joint Venture).
- South Discom

Andhra Pradesh: Andhra Pradesh Electricity Reform Act, 1998 in operation.

APSEB unbundled into:

- Andhra Pradesh Gen. Co. for Generation
- Andhra Pradesh Transco. for Transmission & Distribution

Number of distribution companies to be formed.

Uttar Pradesh: UPSEB has been unbundled into three Corporations viz. UP Thermal Generation Corporation, UP Hydro Generation Corporation and UP Power Corporation (for T&D works) .

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recourse to deduct from the State share of Central Plan Assistance (CPA) and other devolution and pay to the PTC. However, certain issues such as impact of the proposed adjustment of defaulting dues on priority schemes under social sector need to be resolved to the satisfaction of all concerned.

Enhancing the CEA Limit for TEC Clearance

39. The Government has initiated action to streamline the Techno Economic Clearance (TEC)/investment clearance for new projects in the public sector. For private sector, the limit of TEC by Central Electricity Authority has been raised up to Rs.5,000 crore for tariff-based thermal projects on competitive bidding and to Rs 1,000 crore for such other private thermal projects based on tariffs. For private hydro projects which are based on competitive bidding, the ceiling limit has been kept at Rs.1,000 crores.. The ceiling is Rs.20,000 crore.in case of project prepared by a Generating company not wholly or partly owned by Central or a State Government for supply of power to more than one State and approved in accordance with a scheme proposed by any Committee or Body authorised by Central Government,

Private Sector Investment

40. Many domestic and foreign parties have expressed interest in setting up generation capacity totalling 29375 MW; the capacities have been proposed at 57 locations throughout the country. These proposals are at various stages of consideration by appropriate authorities. In most cases, the parties are still to finalise Power Purchase Agreements (PPAs) with the State Governments / SEBs; PPAs are an essential pre-requisite for firming up financing arrangements for the projects. There is need to expedite processing of these proposals. As shown inTable 4 the actual capacity addition in the power sector in the Ninth Plan period is likely to be 7702 MW which is about 44% of the target of 17588 MW.

Environment and Ecology

41. The Ninth Plan Document attaches high priority to environmental management. Critical from this point of view is the Indian coal which is used for thermal power generation. This coal variety has very high ash content of more than 40% and the ash needs to be disposed of. Promotion of clean coal technology is to be encouraged to minimise air pollution. Another issue — re-settlement & rehabilitation and conservation of flora and fauna – has posed major bottlenecks for setting up large hydel power projects. A power project needs clearance from environment and forest angles by Ministry of Environment & Forest (MoEF); that is a statutory requirement before implementing the project. MoEF has issued suitable directions to thermal stations to use beneficiated coal with ash content not exceeding 34% from 1st June, 2001 to curb pollution dangers. The restriction applies to thermal plants located 1000 kms from pithead and those located in urban areas/sensitive areas/critically polluted areas, whatever their distance be from pithead; pithead-thermal plant itself is an exception, though. It looks unlikely that the stipulation would be met by the due date, going by the slow progress in this direction..

Energy Conservation

42. Energy Conservation has an important role to play particularly in reducing demand-supply gap in electricity.. International initiatives to reduce Green House Gas emissions stress the need for energy-efficient options. Studies have brought out the enormous potential there is to improving efficiency in energy production, energy transmission and distribution and end use of energy. On the end-use side, most industrial activities in India consume at least 20% to 50% more energy per unit of output as compared to consumption in the developed world and in some of the dynamically developing countries in Asia. Some energy-intensive Indian industries which were decontrolled such as iron and steel, cement, paper & pulp have reduced the share of energy substantially in their cost of production. A comprehensive legislation on Energy Conservation Bill has been approved by the Central Government and is awaiting enactment by Parliament. The Bill envisages three main provisions targeted at :-

i Fixing minimum energy efficiency standards for equipment and appliances, labeling programme for appliances.

ii Preparation of energy conservation building codes, and

iii A set of initiatives for regulation of norms for processes for designated consumers including appointment of energy managers, conduct of energy audits and preparation of schemes for energy conservation.

Rural Electrification Programme

43. Out of 5.87 lakh inhabited villages (as per 1991 census), nearly 5.05 lakh villages are electrified up to the end of 31.3.99; this accounts for 86% of average all-India level of village electrification. Similarly, out of a potential of 195 lakhs pumpsets in the country, 122 lakhs pumpsets have been energised till March, 1999. The progress of village electrification against the set targets during the first three years and the likely total achievement at the end of the Ninth Plan are is given in Table 9 below:-

TABLE - 9
Progress of Village Electrification during Ninth Plan

Year	Target	Achieve-ment	% Achie-vement
1997-98	3,000	3,207	105
		(3,045)	(102)
1998-99	2,000	2,780	138
		(2,615)	(131)
1999-2000	2,000 (provisional)	1,486 (Likely)	74.3
9th Plan	30,000	13,000 (Likely)	43.3

(The figures in the brackets indicate the REC's achievement out of the total targets)

44. A performance review for three years of the Plan shows slow progress in village electrification in States of Arunachal Pradesh, Assam, Bihar, Meghalaya and West Bengal. The reasons for this range from the difficult locations of villages that remain unelectrified to the difficult financial position of SEBs/Electricity Departments of those States and their reluctance to take up what they consider to be an unremunerative programme. These SEBs are in heavy default in payment of dues to Rural Electrification Corporation (REC) and have failed to furnish a satisfactory repayment schedule.

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45. Of about 80,000 villages to be electrified, around 18,000 are in remote and difficult areas which need to be covered through decentralised non-conventional energy sources like solar, small hydro and biomass power.

46. A component of rural electrification project Minimum Needs Programme (MNP) will be implemented directly by State Governments through respective State Electricity Boards from 2000-01 onwards. This decision by the Centre would help in effectively implementing electrification scheme in the remaining villages, most of them in the MNP States.

47. Pumpset Energisation, another major component of Rural Electrification Programme, has the following target/ achievement during the Plan period (Table 10):

Table - 10
Progress of Pumpset Energisation during 9th Plan

Year	Target	Achieve-ment	% Achie-vement
1997-98	2,40,000	2,84,064	108
		(2,42,173)	(101)
1998-99	2,50,000	3,62,244	138
		(2,81,831)	(113)
1999-2000	2,50,000 (Provisional)	1,94,501 (Likely)	77.8

(The figures in the brackets indicate the REC's achievement out of the total targets)

Mid-Term Approach for Power Sector

48. Some of the important issues emerging from the Mid-term Appraisal of the Power Sector are given below:-

(i) The dismal financial position of the SEBs amounts to a crisis situation. Unless urgent steps are taken to restore financial viability it will neither be possible to achieve public investment targets or attract private investment in this sector.

(ii) Although a few States like Orissa, Haryana and Andhra Pradesh have initiated the reform process through unbundling of SEBs, the progress in other States has been very slow. Even in the States where reforms have commenced, implementation of tariff increases is proving to be difficult. The reform process needs to be expedited so that this could be completed by the end of Ninth Plan.

(iii) The success of reforms and the overall higher efficiency in the power sector — such as higher PLF, reduction in T&D losses as well as fuel consumption and improvement in revenue realisation — would depend on appropriate management capability which needs to be strengthened through training of the managerial staff and better managerial procedures.

(iv) The present level of T&D losses is a matter of serious concern. It is well known that the officially reported level of losses is an under-estimate. More careful computation of actual losses in the context of unbundling of SEBs has shown a much higher level of losses of up to 40%. Much of this is theft with the connivance of distribution staff. There is a need to focus further reforms in the Distribution Sector and form a number of composite distribution zones in each State as separate entities. Privatisation of distribution will help introduce new efficiency benchmarks. In fact reforms in Distribution Sector are critical to the success of reforms in generation and transmission and are directly linked to consumer satisfaction and return on investments in generation and transmission as well as distribution.

(v) Captive power generation has an important role to play in an environment where there is an overall shortage. However, the present policy regarding captive generation is not very clear. Policy guidelines have been issued by the Ministry of Power for the sale of excess power by captive stations to the Grid on payment of wheeling charges and third party sales. However, most State Governments are yet to formulate clear and transparent policy for purchase of captive power in a manner which would provide fair return to captive/cogeneration power plant owners. There is a need to have appropriate policies and institutional arrangements by which power generated by such captive plants could be optimally utilised.

(vi) The tax concessions as are available to generating entities should also be extended to transmission and distribution entities; otherwise States will be discouraged from initiating reforms.

(vii) Pumped storage schemes, though costly, provide a means for obtaining additional peaking power leading to better management of the system. Certain financial incentives would facilitate development of such schemes. There is need to initiate advance action during remaining period of the Ninth Plan.

(viii) Investment in R&M has distinct cost advantage over new generation capacity. Efforts need to be made to expedite R&M works and life-extension programme.

(ix) In order to expedite the Rural Electrification Programme, participation by the local bodies like village panchayats, village co-operatives, Non Governmental Organisations (NGOs) and other people's organisations needs to be encouraged.

(x) A Task Force may be set up to analyse/examine issues related to the performance of power sector during Ninth Plan and suggest advance action for the Tenth Plan.

(xi) Under the mega power policy, if a particular SEB defaults in making payment to the PTC, recourse will be taken to make deduction from the State share of Central Plan Assistance (CPA) and other devolution for making payment to the PTC. However, certain implications such as impact of adjusting those dues on priority schemes under the social sector need to be resolved.

(xii) As per the present definition, a village will be deemed " electrified" if electricity is used in an inhabited locality within the revenue boundary of the village for any purpose whatsoever. Some other criteria may be applied for this purpose, it is suggested, like a minimum percentage of households being electrified and generation of gainful economic activities in the area.

(xiii) Involvement of local bodies like village panchayats, village co-operatives, NGOs and other people's organisations would go a long way in effectively implementing Rural Electrification Programme and industrialisation and allied activities in rural areas.

(xiv) Pursuant to the 73rd Amendment of the Constitution, the Panchayats would be entrusted with the responsibility for programmes like rural electrification and promotion of non-conventional energy. Rural electrification would, however, require technical expertise for installation, operation and maintenance which is not always available with the Panchayats. With some training, the Panchayats can be a very effective institution in making rural electrification a success.

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Coal & Lignite

49. The Ninth Plan envisaged augmenting domestic

Table - 11 Physical Performance

Sl.No	Parameter	Ninth Plan Target 2001-02	1997-98 Actual	1998-99 Provl.	1999-2000 Target	Revised Target 2001-02	Growth Rate (%) Ninth Plan Original	Growth Rate (%) Ninth Plan Revised
1.	Coal Demand (mt)	412.20	306.41	291.11	311.83	370.80	6.85	4.6
		(7.70)	(5.80)	(3.01)	(3.00)	(7.70)		
2.	Coal Production (mt)	370.60	295.80	292.16	301.80	328.86	5.34	2.86
3.	Lignite Production (mt) Central - Neyveli (NLC)	22.00	18.11	18.17	17.50	22.00	4.9	4.9
	State - Gujarat, GMDC	10.00	4.94	4.90	NA			
	Rajasthan	13.00	0.18	0.25	NA			
	Total Lignite:	45.00	23.05	23.07	17.50			
4.	Promotional .Expl.(m)	775000	96118	146800	190000	720000		

Table – 12 Financial performance

(Rs.crore)

Sl.No	Parameter	Ninth Plan Approved Outlay 1997-02	1997-98 Actual	1998-99 Provl.	1999-2000 RE	Cumulative 1997-2000	Balance (+/-)	Revised Outlay Ninth Plan 1997-2002
(i)	Coal & Lignite	17575.23	2212.67	2469.52	3605.85	8288.04	9287.19	17430.74
(ii)	NLC (Power)	1866.36	37.00	123.94	296.64	457.58	1408.78	1713.00
	Total MOC:	**19441.59**	**2249.67**	**2593.46**	**3902.49**	**8745.62**	**10695.97**	**19143.74***

Note: * the revised Ninth Plan Outlay includes Rs.459.19 crore for implementing VRS in CIL.

coal production with a long-term perspective keeping in view a sharply increasing demand by the power sector vis-a-vis long-gestation periods of coal projects. An important area of the Plan concerns restructuring the coal sector and facilitating private sector participation in commercial coal mining by means of necessary legislative amendments. The Plan continues to lay emphasis on clean coal technologies, Science & Technology (S&T), development of Coal Bed Methane resources, augmentation of port and rail infrastructure facilities for improved coal movement and development of lignite resources in a big way.

Mid-Term Review

50 Table- 11 and 12 (below) show physical and financial performance in respect of coal demand, production and regional/promotional exploration during first two years of the Ninth Plan and target for the year 1999-2000 and the terminal year of the Plan.

Coal Demand

51 Coal consumption in first two years of the Plan registered a negative growth of 0.8% against the proposed average annual compounded growth of 6.85%. Main reasons for shortfall have been sluggishness in the industrial sector, slippage in materialisation of new coal-based thermal power stations, lesser coal offtake by the power sector due to resource constraints and consequently consumption from their coal stocks by SEB's and non-compliance with the norm of 30 days consumption level. Also, there have been a lower offtake by steel sector due to slump in demand and by cement sector because of duty-free imports of coal against cement exports, some imports by the consumers including the cement sector in the coastal areas, coal movement constraints and unaccounted flow of certain quantity of cheaper coal through private sector producers/ suppliers. A downward revision of sectoral targets for major coal consumers like Power and Steel has necessitated revision of the Plan target of coal demand, which is now fixed at 370.80 mt excluding 7.7 mt of washery middlings in the terminal year 2001-02 implying an average annual compounded growth of 4.6%. Sectoral details are given in Table-13 below.

Coal Production

52 Coal production in first two years of the Plan suffered due to a slump in offtake necessitating coal

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Table - 13 - Sectorwise coal demand/offtake

(in million tonnes)

Sl. No.	Sector	1997-98 Actual	1998-99 Provl.	1999-2000 Target	IX Plan Demand Original 2001-02	IX Plan Demand Revised 2001-02
	Coking Coal					
1	Steel	33.06	33.24	36.02	49.60	44.60
2	Coke Ovens			0.81	2.00	2.00
	Sub-Total Coking:	**33.06**	**33.24**	**36.83**	**51.60**	**46.60**
	Non-Coking					
3	Power Utilities	212.92	202.51	214.00	262.00	235.00
		(3.62)	(3.01)	(3.00)	(5.00)	(5.00)
4	Cement	10.13	8.66	10.00	21.40	21.40
5	Steel DR	2.62		3.58	6.10	4.20
6	Railways	0.05		-	-	-
7	Fertiliser	4.64		4.30	3.80	3.80
8	LTC/Soft Coke	0.04		0.04	3.00	3.00
9	Export	0.06		0.07	1.00	1.00
10	Captive Power	16.19	46.70	16.42	25.80	25.80
		(1.58)		(-)	(2.70)	(2.70)
11	BRK & Others	23.64		23.34	33.50	26.00
		(0.60)		(-)	(-)	(-)
12	Colly. Consumpt.	3.06		3.25	4.00	4.00
	Sub-Total NonCoking:	**273.35**	**257.87**	**275.00**	**360.60**	**324.20**
		(5.80)	**(3.01)**	**(3.00)**	**(7.70)**	**(7.70)**
	Grand Total:	**306.41**	**291.11**	**311.83**	**412.20**	**370.80**
		(5.80)	**(3.01)**	**(3.00)**	**(7.70)**	**(7.70)**

Note: Figures in brackets are washery middlings and are not included in totals.

companies to regulate output to avoid piling of pithead stocks. The production has grown at a rate of 0.78% against the envisaged growth of 5.3%. The slump in demand necessitated downward revision of the targeted coal production in the terminal year (2001-02) of the Plan from 370.60 mt projected earlier to 328.86 mt. This implies an average annual compounded growth of 2.86% against the initially envisaged growth of 5.3%. The company-wise production details are given in Table-14, below.

53. The incremental coal production envisaged in the Plan was 84.94 mt over 56.37 mt achieved in the Eighth Plan. Out of this 60.04 mt of production was to come from new projects (Coal India Ltd, CIL, 55.71 mt; Singareni Coal Co. Ltd, SCCL, 4.33 mt) and 13 mt from new captive blocks. As against this, the new projects sanctioned by CIL and SCCL have a capacity of 13.33 mt only; and only one captive block has started producition, of about 2 mt. The main reasons for shortfall have been disturbed industrial relations in SCCL in 1997-98 and regulation of coal production by the coal companies following lower offtake by power, steel and cement sectors in 1998-99 in order to avoid accretion to pit-head stocks.

54 Further, the availability of washed coking coal from CIL sources is declining mainly due to deteriorating raw coal feed, which is adversely affecting the performance of coking coal washeries. The average yield of the washeries has come down to around 44%. The actual production of washed coking coal from CIL sources in 1997-98 and 1998-99 was 6.99 mt and 7.81 mt against the target of 11.36 mt and 9.96 mt respectively. The target of production for 1999-2000 is 8.04 mt. The revised washed coal production target for CIL in 2001-02 is 8.45 mt as against the original target of 12.26 mt.

Lignite

55 The envisaged demand for lignite in the terminal year of the Ninth Plan is 54.44 mt. The production from Neyveli Lignite Corporation (NLC) in first two years of the Plan has exceeded the targets by about 4%. The Ninth Plan target of 22 mt for NLC is likely to be achieved.

Demand- Supply Management

56 The gap between the original targets of coal demand and production was 41.6 mt in 2001-02. This was to be met through import of 19 mt of coking coal and 2.3 mt of non-coking coal and the balance 20.3 mt was to be met through augmentation of domestic coal production by CIL. As against this, the now envisaged gap in the revised demand and production estimates in 2001-02 is 41.94 mt. Of this, the import requirement of coking coal would be 14.5 mt which would still leave a gap of 27.44 mt. Any additional requirement during the Ninth Plan would be met by increasing the domestic production or drawing from the pithead stocks of CIL. However, it would affect the domestic coal supply in the Tenth Plan period and beyond unless additional production capacities are created.

Coal Sector Growth at a glance

- Coal consumption and production suffered in first two years of the Plan necessitating downward revision of Ninth Plan targets. This was mainly due to slower than expected economic growth and non-materialisation of envisaged new coal based thermal power generating capacity.
- According to the revised demand and production targets, the net gap in the terminal year of the Plan would be 41.94 mt of which the import requirement of coking coal is 14.5 mt leaving a gap of 27.44 mt of non coking coal. This gap can be met by increasing production beyond the Ninth Plan target or drawing from pithead stocks of CIL.
- Initially it was envisaged that 60.04 mt of production would come from new projects of national coal companies (CIL-55.71 mt; SCCL- 4.33 mt) and 13 mt from new captive blocks awarded. As against this, in first two years of the plan new projects for a capacity of 13.33 mt only (CIL- 12.85 mt; SCCL-0.48 mt) have been sanctioned and only one captive block has started producing 2 mt. This rate of capacity addition will lead to a large gap between demand and supply for coal in the Tenth Plan and beyond. Unless projects in the pipeline are implemented, this gap cannot be reduced.

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Table – 14 Coal Production

(million tonnes)

Sl.No	Company	IX Plan Target 2001-02	1997-98 Actual	1998-99 Provl.	1999-2000 Target	IX Plan Rev. Target 2001-02	IX Plan Growth (%) Original	Revised
1.	Coal India Ltd. (CIL)	314.00	260.55	256.49	262.00	285.00	4.60	2.60
2.	Singareni Coll. Co. Ltd.	36.00	28.94	27.33	31.00	34.00	4.61	3.43
3.	TISCO/IISCO/DVC	7.60	6.31	6.34	6.80	7.60	3.89	3.89
4.	CAPTIVE BLOCKS	13.00	-	2.00	2.00	2.26	-	-
	TOTAL:	370.60	295.80	292.16	301.80	328.86	5.34	2.86

Coal Exploration

57 The anticipated achievement of promotional drilling in first three years of the Plan is 4,32,9178 metres. This leaves a balance drilling of 2.87 lakh metres for the remaining two years.

58 The Ninth Plan envisaged 18.8 lakh metres of detailed drilling in coal and 3.85 lakh metres in lignite with an objective to upgrade 24 billion tonnes of coal reserves and 5.9 billion tonnes of lignite to 'proved' category. The achievement in 1997-98 and 1998-99 had been 3,35,936 metres and 3,24,000 metres respectively. The target for 1999-2000 is 3,46,000 metres. The anticipated achievement in first three years of the Plan is 10,05,936 metres. If this trend continues, there will be a shortfall of about 1.3 lakh metres at the end of the Plan. Therefore, concerted efforts are required to step up drilling operations so as to achieve the Plan target of detailed exploration. An outlay of Rs.91.18 crore has been provided for undertaking detailed exploratory drilling of 3.64 lakh metres in 41 non-CIL blocks in 13 coalfields outside CIL's command area during the Ninth Plan. However, in view of the resource constraints, the possibilities for joint ventures would need to be explored between public sector undertakings and private partners to undertake detailed drilling outside CIL blocks.

Project Implementation

59 Ninth Plan targeted a coal production of 350 mt from the public sector coal companies, out of which 60.04 mt was to come from new projects (CIL-55.71 mt; SCCL-4.33mt) and the balance from existing mines and ongoing projects. As against this, in first two years of the Plan, only a capacity of 13.33 mt in new projects has been sanctioned in CIL and SCCL. Only one captive block began producing 2 mt against a target of 13 mt. As against this, the revised capacity addition target in the Plan is only around 50 mt. This rate of capacity addition would affect coal availability in the Tenth Plan period and beyond. Besides, the delays continue resulting in both time and cost overrun. Problems of land acquisition, forestry clearance, rehabilitation, equipment supply, funds constraints, inadequate geological studies etc. continue to cause delays in the implementation of the coal projects. It is, therefore, necessary that effective steps are taken to eliminate/minimise the time and cost overruns in implementation of mining projects. Prioritisation of potential projects and weeding out of unviable and languishing projects would be necessary.

Coal Imports

60 Coal is on OGL (Open General Licence for imports). Steel sector has been importing coking coal on qualitative and quantitative considerations. The basic import duty on coking coal is 5% and on no-coking coal 15%. In recent past, imports of non-coking coal have been stepped up mainly by consumers in coastal regions particularly cement and some thermal stations. This is because of the cheaper imports compared to a high landed cost for domestic coal on account of high rail freight charges.

Infrastructure for Coal Movement

61 With a view to augmenting rail movement capacity, it was proposed to take up certain critical rail links in potential coalfields viz. Korba, Talcher, Ib and North Karanpura. Ministry of Railways has taken up these works in some of the areas.

62 Coal handling capacity at ports – which stood at about 8.5 mt at end of the Eighth Plan – is proposed to be raised to 37 mt by the Ninth Plan end. This includes capacity addition of 20 mt at Paradip and 8 mt at Chennai. This capacity addition is likely to be achieved.

Beneficiation of Non-Coking Coal and Clean Coal Technologies (CCT)

63 Ministry of Environment & Forests (MOEF) has made it mandatory to utilise coal with not more than 34% ash content in power stations from 1.6.2001 onwards. However, compliance of this requirement may not be feasible within the prescribed time period as there is no matching coal washing capacities. Besides, blending of domestic coal with imported coal may not be feasible since enormous quantities of coal would need to be imported with both physical and financial implications. This needs to be reviewed by MOEF/Ministry of Coal (MOC).

64 Coal Bed Methane exploration and exploitation is a thrust area of the Ninth Plan under Clean Coal Technologies (CCT). The work is being coordinated between Ministry of Coal (MOC) and Ministry of Petroleum & Natural Gas. Similarly, power generation through Integrated Gas Combined Cycle (IGCC) and Fluidised Bed Combustion (FBC) is also a thrust area under CCT for the Ninth Plan. This needs to be given some fillip by Ministry of Power.

Environmental Measures

65 Mitigation of problems of mine fires and land subsidence in Jharia and Raniganj coalfields continues to be an important thrust area in the Ninth Plan. Under a Master Plan, MOC has formulated a scheme "Rehabilitation, Control of Fire & Subsidence in Jharia & Raniganj Coalfields". This scheme is based on recommendations of a High Level Committee and it is is being implemented in phases.

Science & Technology

66 Although the Plan has laid a special thrust on Research & Development (R&D)/Science & Technology (S&T) activities in the coal sector, the progress has not been as desired. As a result, the outlays have not been fully utilised. One important project, namely, coal bed methane extraction in collaboration with United Nations Development Programme (UNDP) and Global Environment Fund (GEF) is proposed to be taken up in the Plan.

Outlays

67 The expenditure in the first two years has been only 25% of the Ninth Plan approved outlay and including the Revised Estimates (RE) for 1999-2000 the cumulative expenditure is 45% (Table-15). This would leave a balance amount of Rs.10,695.97 crore (55%) available for the remaining period of the Plan. In view of the lower offtake of coal by consuming sectors during the first two years and the current year of the Plan, the Ninth Plan outlay of Ministry of Coal has been revised from Rs.19,441.59 crore to Rs.19,143.74 crore which includes an outlay of Rs.459.19 crore to implement a Voluntary Retirement Scheme (VRS) in CIL.

Externally Aided Projects (EAP)

68 Various coal projects under CIL, SCCL and NLC and Regulatory Framework Review Project had an external aid component of Rs.349.66 crore in the Ninth Plan. The actual expenditure in 1997-98 was Rs.51.27 crore while the anticipated expenditure in 1998-99 was Rs.75.74 crore. An outlay of Rs.112.56 crore has been provided in the Budget Estimates (BE) for 1999-2000. The cumulative anticipated expenditure in the first three years is 68.5%. The balance available for the remaining two years of the plan is Rs.110.09 crore (31.5%).

69 A loan assistance of US $ 1060 million has been obtained by CIL from the World Bank (WB) for implementation of "Coal Sector Rehabilitation Project (CSRP)" to expand coal production from 24 identified projects in five of its subsidiary companies. They comprise some expansion schemes and replacement of heavy earth moving equipment. This amount, in turn, consists of US $ 530 million from the WB and a similar amount from Japan Export Import (JEXIM) bank. CIL will contribute US $ 581.6 million. The total investment envisaged is US $ 1697.6 million in the Ninth Plan. The loan amount will be a direct component. The utilisation of funds commenced in 1998-99, and against the BE provision of Rs.676.63 crore, the RE has been Rs.455.35 crore.

Coal Sector Reforms

70. With deregulation of prices of remaining grades of coal with effect from 1.1.2000, the prices of all grades of coal stand decontrolled. At present private sector participation in coal mining is limited to mines for captive consumption only. A Bill to amend the Coal Mines (Nationalisation) Act, 1973 to permit non captive mining

Table - 15 - Outlay & Expenditure

(Rs. Crores)

Sl.	PSU	IX Plan Outlay 1997-02	1997-98 Actual	1998-99 Provnl.	1999-2000 BE	1999-2999 RE	Cumul. 1997-2000	Balance (+/–)	Revised Outlay 1997-2002
1	CIL	12401.00	1824.55	1753.73	2556.00	2676.19	6306.91	6094.09	12000.00
2	SCCL	2235.00	208.48	200.49	227.19	217.20	626.17	1608.83	1665.32
3	NLC (Mines)	2581.80	149.34	470.50	575.98	561.30	1195.82	1385.98	2857.00
4	S&T	80.00	8.50	5.00	20.71	7.57	34.21	45.79	80.00
5	Regl.Expl.	130.00	20.95	24.58	32.56	32.56	78.09	51.91	140.00
6	EMSC	79.00	0.85	10.00	20.00	11.63	30.85	48.15	79.00
7	Det.Drilling (Non-CIL)	9.38	0.00	4.00	5.38	5.38	9.38	0.00	91.18
8	Reg.Fr. Work	8.05	0.00	1.22	3.89	6.00	5.11	2.94	8.05
9	Rehab.Proj. Jharia/Rangnj.	50.00	0.00	0.00	0.00	0.00	1.50	48.50	50.00
10	R&D Centre	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
12	VRS	400.00*	75.33*	151.03*	160.00*	165.00*	391.36*		459.19**
	Coal&Lignite	17575.23	2212.67	2469.52	3441.71	3522.83	8288.04	9287.19	17430.74
13	NLC (Power)	1866.36	37.00	123.94	296.64	260.56	457.58	1408.78	1713.00
	Total MOC:	**19441.59**	**2249.67**	**2593.46**	**3738.35**	**3783.39**	**8745.62**	**10695.97**	**19143.74**

Note:- * Outlay for VRS of Rs.400 crore is from NRF initially & not included in totals. In 1999-2000 (RE), out of Rs.165 crore, Rs.5 crore is from DBS & added in total.
**Revised Ninth Plan Outlay for VRS at Rs.459.19 crore is from DBS available to DOC in the IX Plan and added to the totals of revised outlay.

has been introduced in Parliament. It is necessary to expedite passage of this legislature to open up the sector for private investment. There is need to expedite setting up of regulatory authority for resolving any price disputes and allocation of coal blocks both for exploration and exploitation by framing separate rules under Mines and Minerals Development & Regulation (MMDR) Act, 1957 for grant of prospecting license/mining lease etc.

Reforms in the Coal Sector

- The Bill to amend Coal Mines (Nationalisation) Act, 1973, for allowing private sector in commercial coal mining needs to be expedited. Private coal mining for commercial supply is essential to supplement the efforts of national coal companies in making available required quantity of coal from domestic sources.
- Setting up of Regulatory Authority for resolving any price disputes etc., allocation of coal blocks both for exploration and exploitation by framing separate rules under MMDR Act, for grant of prospecting license/mining lease etc. needs to be expedited.

Problem Areas

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The following are some of the problem areas which need to be addressed.

(a) **Rail freights** - Coal is being overcharged and made uncompetitive vis-a-vis imported coal. This is because of cross subsidy by Railways.

(b) **Productivity & capacity utilisation** – The Ninth Plan target for productivity in terms of output per man shift was set at 2.24 tonnes for CIL (OC -6.53 t; UG –0.69 t). The anticipated achievement in 1998-99 has been 1.95 tonnes (OC –5.29 t; UG –0.6 t). Similarly, for SCCL the target set was 1.3 tonnes (OC –4.50 t; UG –0.79 t). The anticipated achievement in 1998-99 was 1.36 tonnes (OC-3.58 t; UG –0.79 t). There is a need for improving the overall productivity in general and underground productivity in particular. For the productivity of Heavy Earth Moving Machinery (HEMM), MOC has formed a Committee to review the norms. The Committee is expected to submit its report shortly. There is also a need to improve the overall system capacity utilisation.

(c) **Cost control** - The price of indigenous coal is becoming uncompetitive due to higher cost of production, high State levies and high rail freight charges. It is reported that about 19% of the unit cost of production in CIL goes towards administrative and other factors. This indicates there is significant scope to reduce this type of expenditure in order to bring down unit cost of production and pass the benefits to consumers.

Mid-Term Approach for Coal Sector

71 Coal being a plentiful indigenous energy source it is necessary to ensure effective exploitation of our resources. There is a dire necessity for improvement of efficiency of operations in the sector with a professional, managerial approach. Over the past three years, though there has been a decline in the international prices of coal by over 30%, the price of indigenous coal has increased by over 25%. This brings in the necessity of looking into management deficiencies in order to make the domestic coal competitive in the market. There is pressing need for development of coal sector in a sustained manner as part of a long-term energy strategy. Concerted efforts would need to be made towards improvement in quality, technology, productivity, capacity utilisation etc. with proper managerial inputs. Besides, reforms would need be expedited to facilitate private sector investment which would generate competition in the sector.

72 Some important issues emerging from the Mid-Term Appraisal of the Coal & Lignite Sector are:

(i) Domestic coal demand and production have suffered in first two years of the Ninth Plan affecting generation of internal resources, mainly due to shortfall in the offtake by the major consuming sectors like power, cement, etc. New coal based generation capacity addition has also not materialised as envisaged. Efforts need to be made to stimulate the demand with proper marketing strategies both domestic as well as export markets so that available production capacities are fully utilised. It should be ensured that the present trend of the National Coal Companies (NCCs) regulating coal production due to temporary sluggishness in offtake should not create a crisis when demand for coal picks up, especially in power sector when private power projects in the pipeline materialise.

(ii) Taking up of new projects is getting delayed for various reasons and this may result in shortfall in availability of coal in medium and long term. The gestation period for a coal mine is considerably long vis-a-vis power plants and this underscores the need for taking up development of Plan-identified projects to meet the requirements of power sector during the early Tenth Plan period.

(iii) There is an urgent need to upgrade proven coal reserves through detailed drilling especially in the coal bearing blocks outside CIL command area. While budgetary support for such detailed drilling would be necessary for the time being, the feasibility of joint ventures between public sector undertakings and private sector need to be explored.

(iv) The constraints of project implementation viz. land acquisition, rehabilitation, forestry & environmental clearances, resources, etc. are adversely affecting the progress of implementation of projects and need to be improved. There is an urgent need to finalise the National Rehabilitation Policy and the single-window system for environmental & forestry clearances to projects.

(v) Appropriate mechanism would need to be evolved for the recovery of the outstanding coal sale dues and power sale dues for improving financial health of the coal sector PSUs.

(vi) Revival of Eastern Coal Field Ltd.(ECL), Bharat Coking Coal Ltd.(BCCL) & Central Coal Field Ltd. (CCL) should be addressed urgently so as to improve their financial health. Rationalisation of manpower in coal companies in general and in loss-making companies in particular should also be attended to urgently. Among others, VRS could be one of the options in this regard.

(vii) Construction of critical rail links in potential coalfields would need to be expedited. Also, the feasibility of coal slurry transportation would need examination.

(viii) Efficient utilisation of high ash Indian coals calls for adoption of clean coal technologies, fluidised bed combustion/pressurised fluidised bed combustion boilers for power generation with proper tie-ups with manufacturers by coal and power sectors.

(ix) Rail freight rates for coal movement would need to be rationalised.

(x) Legislative action needs to be expedited to facilitate private sector investments in coal sector as also to permit free sale of domestic coal.

(xi) Sources of funds for financing should be identified, finalised and tied up before sanctioning projects to avoid time and cost overruns in implementation.

(xii) There is need to institutionalise closer and regular monitoring of implementation of coal mining projects by coal companies as well as by an Inter-Ministerial Monitoring Group under MOC with a representative of the consuming Ministries and the Planning Commission.

(xiii) Proper demand management measures by consuming sectors particularly power and steel in reducing specific coal consumption levels would conserve scarce resources and help in making proper demand estimates.

Petroleum & Natural Gas Sector:

73. In view of the increasing demand of petroleum products and stagnant indigenous production of crude oil, the following areas were identified for special attention during Ninth plan:

- Acceleration of exploration efforts, especially in deep offshore areas
- Pursuing the possibility of acquisition acreage abroad for equity oil
- Special attention on improving reservoir management
- Formulation of an overseas oil and gas supply policy
- Deregulation/rationalisation of the Administered Pricing Mechanism (APM)
- Possibility of importing natural gas in the form of liquefied natural gas (LNG)
- Creation of adequate refining capacity (80%-90% of demand)
- Augmentation and upgradation of marketing and distribution facilities
- Improvement of product quality
- Removal of existing administrative bottlenecks
- Setting up of regulatory mechanism
- Setting up of strategic tankages for ensuring supplies

Mid-Term Review

74. Physical and financial performance during first two years of the Ninth Plan, what is anticipated for 1999-2000 and the likely Plan achievements are given in the table 16 below. It is evident that accretion to reserves has been significant below target whereas expansion in refining capacity exceeds target. In financial terms investment is likely to be only about 81% of the target.

A perusal of the Table-16 and 17 reveals the following:

Demand/Consumption of Petroleum Products

75. The demand of petroleum products was estimated at 104.80 million metric tonnes (MMT) during 2001-02 excluding liquid fuel requirement for power generation. If this growth trend (6.8%) as achieved in the last three years continues, the consumption of petroleum products would be about 110 million tonnes during the year 2001-02, including liquid fuel requirement for power generation.

Exploration and Development

76. In order to boost domestic production of crude oil, the Ninth Plan has emphasised a change in exploration

Table - 16
Physical Performance

Programmes	1996-97 Actual	2001-02 Target	Ninth Plan Target	1997-98 Actual	1998-99 Actual	1999-2000 Antic	Anticipated achievement during 1997-2000	Likely Achieve-ment 1997-02	% of Target
Demand/ consumption (MMT)	79.16	104.80	469.83$	84.29	90.86	96.44	271.59	484.59	—
Reserve accretion (MMTOE)	27.06	—	246-343	22.69	33.14	43.80	99.63	195.63	79.5 *
Crude oil (MMT)	32.90	36.98	180.82	33.86	32.71	31.97	98.54	161.93@	89.55
Gas production (BCM)	23.30	30.70	144.53	26.40	27.43	27.97	81.80	140.35	97.1
Refining Capacity(MMT)	61.55	113.95	113.95	61.55	68.45	103.15	112.54	129.04	113

$ Excludes liquid fuel for power generation
@ Considering projected production 31.99MMT & 31.40 MMT during 2000-01 & 2001-02 respectively.
# considering projected production of 28.81 BCM & 29.75 BCM during 2000-01 & 2001-02 respectively.
* at minimum level of 246MMTOE.

Table - 17
Outlays / Expenditure (Rs. Crore)

1996-97 Actual	Ninth Plan Approved outlay	1997-98 Actual	1998-99 Actual	1999-2000 RE	Anticipated expenditure during 1997-2000	Likely Investment 1997-02	% of utilisation
8007.59	74014.18	9682.72	11213.62	12218.29	33114.63	60114.63	81.2
	(74014.18)	(9165.77)	(9938.50)	(10215.96)	(29320.23)	(56320.23)	(76)

* Considering the avg. expenditure of Rs. 13500 crore during remaining two years.
Figures in bracket are at constant prices of 1996-97

strategy, which includes (i) extensive exploration in all the basins, (ii) use of 3D technology for seismic survey; and (iii) exploration in deep waters in North Brahamputra and frontier areas..

77. The policy of exploration and exploitation of Coal Bed Methane (CBM) was approved by Government in July, 1997. The policy envisages (i) global bidding system, (ii) award of blocks to PSUs on nomination basis and (iii) joint exploration of CBM by Oil & Natural Gas Corporation Ltd. (ONGCL) and Gas Authority of India Ltd. (GAIL).

78. ONGC Videsh Ltd. (OVL) is pursuing opportunities to acquire equity oil and gas abroad. Other national oil companies, such as Oil India Ltd (OIL), Indian Oil Corporation (IOC) and Hindustan Petroleum Corporation Ltd (HPCL, are also exploring possibilities of joint ventures in exploration and production of oil abroad.

Hydrocarbon Reserves Accretion

79. The Ninth Plan targets for recoverable reserves accretion is between 246 million tonnes and 343 million tonnes of oil and oil equivalent of gas (MMTOE) for ONGC and OIL but the target is not likely to be achieved. The anticipated addition is only 99.63 MMTOE during first three years of the Plan. Exploration programme of National Oil Companies (NOCs) was recast in August 1998 to achieve a enhanced Reserve Replacement Ratio (RRR) of more than or equal to unity. The recast plan is under implementation for three years of the plan i.e. 1999-2000 to 2001-02. However, no appreciable change in the reserve accretion scenario is likely to take place unless any significant discovery is made. As per the latest estimates,

Performance Highlights
Oil & Natural Gas Sector

- **Petroleum products demand target is likely to be met.**
- **Crude oil production may fall short of the target by about 10%.**
- **Natural gas production may marginally fall short of the target.**
- **Accretion to hydrocarbon reserves is significantly below targets.**
- **Refining capacity target is likely to be over achieved.**
- **Imports of oil may surpass the target of 85-90 million tonnes in 2001-02.**
- **Dismantling of APM and duty rationalisation slower than envisaged.**
- **Private participation in exploration and production is below expectation.**
- **Ninth Plan expenditure may be lower than the approved outlay.**

the reserve accretion is likely to be of the order of 195 MMTOE for the Plan.

80. The anticipated crude oil and natural gas production is likely to be short of target for the first three years and the Plan target as well.

Refining Capacity

81. The refining capacity was targeted to increase from 61.55 MMT (re-assessed at 62.24 MMT with Manglore Refinery and Petro-chemicals Limited (MRPL) scaling up its capacity from 3.00 MMT to 3.69 MMT) in 1997-98 to 113.95 MMT by terminal year of the Ninth Plan. As per the present estimates, the refining capacity may go up to 129.04 MMT by the end of the Plan, which includes 43.5 million tonnes capacity addition in private sector, 17.30 million tonnes in the public sector and 6.00 million tonnes in joint sector. With the materialisation of the projected refining capacity, the demand is expected to be met essentially from the domestic production. Imports / Exports of petroleum products will be there only to the extent of imbalance between the availability and demand. Further, imports of permitted products are expected to be made by private parties for marketing or own use.

Imports of Crude Oil and Petroleum Products

82. During 1998-99, 39.81 MMT of crude oil and 18.09 MMT of petroleum products were imported. It is estimated that 63.94 MMT of crude oil and 10.36 MMT of petroleum products would be imported during 1999-2000. In addition, 5.70 MMT of petroleum product would be imported by private sector. The import requirement of crude oil during 2001-02 would be in the range of 85 MMT to 90 MMT.

Price Reforms

83. **Deregulation-** As per approved programme on dismantling of APM, the consumer prices of all petroleum products, except MS, HSD (High Speed Diesel), ATF, Kerosene Oil for Public Distribution System (PDS) and Liquefied Petroleum Gas LPG (domestic) have been decontrolled. Further, the ex-storage price of HSD has also been linked to import price. However, subsidies for LPG and Kerosene were to be reduced in a phased manner and this has not been done. The policy of linking diesel prices with world prices has also not been implemented regularly as was envisaged. This has created uncertainty about policy in the area.

84. **Restructuring-** The Group on Hydrocarbon Vision-2025 has recommended that Oil PSUs may be restructured to have required strength to compete with multinational corporations (MNCs) and private sector. There is a need, however, for Government presence through PSUs in both upstream and downstream sectors at least for a period of five years after complete deregulation.

Environmental Management

85. Supply of MS with low lead content (0.15 gm/ litre) was introduced throughout country from January 1997; effective 1.2.2000 only unleaded MS is being sold. As envisaged, diesel with 0.25% sulphur was to be supplied by April 1, 1999. For this purpose hydro-desulphurisation facilities were planned in nine refineries, most of these have already been commissioned. Diesel with 0.25% sulphur is being supplied throughout the country since 1.1.2000.

Petroleum Conservation

86. In view of the widening gap between demand and indigenous availability, high priority needs to be accorded to petroleum conservation. Efforts to promote conservation have been made by the Petroleum Conservation Research Association (PCRA), Refineries, Upstream oil Sector, Oil marketing companies, networking institutions like NPC, CII, FICCI, Institution of engineers, NGOs and similar organisations in the states and individual consumers. There have been mass awareness campaigns. Efforts by the Ministry of Non- Conventional Energy Sources (MNES) and organisations under them also result in conservation of energy including petroleum. Similarly, thanks to Government incentives and the process of liberalization, there have been efforts by industrialists and entrepreneurs to upgrade technology leading to conservation of petroleum. Technologies in the transport sector, which is the largest consumer of petroleum products, are being upgraded. However, it seems difficult to quantify the extent of saving of petroleum products as a result of all these various conservation measures. There is a need to evolve a mechanism to assess such benefits from conservation and from pollution reduction efforts as also to benchmark the various activities with the international practices so as to reduce energy consumption in producing and consuming sectors.

Plan Outlays

87. The Petroleum sector outlay for the Ninth Plan is Rs.74,014.18 crore. The anticipated expenditure up to 1999-2000 would be Rs. 33,114.63 crore and up to 2001-02 Rs. 60114.63 crore. The shortfall is expected mainly on account of delay in taking up of the joint venture refinery projects.

Mid-term Approach for Petroleum Sector

88. Some of the important issues that emerged from

the mid-term appraisal in Petroleum and Natural Gas sector are:

(1) The addition to hydrocarbon reserves during first two years of the Plan is significantly below the target. The relatively low success rate is a matter of serious concern. There is a need to step up the exploration activity. This could be achieved by increasing the periodicity of offering exploration blocks under the NELP. In addition, it is also important to improve the quality of data available for better interpretation.

(2) Refining sector has been de-licensed and opened up to private investors. Projects to add adequate refining capacity, both through expansion and grassroot addition, have been approved to meet the Plan requirements. However, due to current low international refining margins, some of the joint venture partners in the sector are reluctant to go ahead with setting up of grassroot refineries. With the emergence of large private refineries, the Plan target of refining capacity is expected to be over-achieved. Therefore, some of the grass root refinery projects being processed for approval need to be rescheduled until the demand picks up.

(3) There have been some deviations with regard to rationalisation of duties in the dismantling of Administered Pricing Mechanism for the Petroleum sector. This has created uncertainty about future policy. The dismantling process of APM needs to be followed as envisaged so that prices are deregulated by April 1, 2002, as originally envisaged.

(4) In view of the strategic importance of oil sector in the economy, there is a need to restructure the PSUs to have the required strength to compete with MNCs. Following restructuring these companies should be privatised through a transparent process.

(5) For marketing and distribution of petroleum products, the existing mechanism envisages that these activities be taken up by an oil company if it invests either Rs. 2,000 crore in the domestic refining capacity or create facilities to produce 3 million tonnes of crude oil per annum. Such a dispensation has not been found attractive to potential investors who are interested in marketing as well. With a view to creating competition, it is suggested that investment in marketing and distribution of petroleum products may also be included for meeting the above criteria. The current policy on marketing rights requires a review. Marketing rights for transportation fuel to be made conditional to a company investing Rs.2000 crores in Exploration and production. Refining, Pipelines or Terminals. Such investment should be towards additionality of assests and in the form of equity, equity like instruments or debt with recourse to the company.

(6) The import dependence of oil is increasing and is expected to be about 70% by terminal year of the Ninth Plan. It needs to be viewed whether efforts be made to restrict consumption of petroleum products. Any arbitrary limit of restriction on imports of petroleum products may affect the economic growth of the country. The correct approach would be to allow scarcity to be reflected in prices. This will create an incentive for conservation and efficient use of petroleum products.

(7) Complete price deregulation and operation of efficient market in petroleum sector needs establishment of prudential rules and regulations by a statutory regulatory authority. Therefore, setting up of regulatory mechanisms needs to be expedited, so as to ensure smooth transition from APM to market-driven pricing mechanism.

DRIVERS FOR FUTURE
Oil & Natural Gas Sector

- Exploration activities need to be accelerated - both in NELP and non-NELP areas. The policy of offering exploration blocks under NELP may be continued. The frequency of bidding rounds under NELP needs to be increased.
- The development of new grass root refining capacity needs to be slowed down in view of the emergence of excess capacity.
- The dismantling of APM should be implemented according to the approved schedule so as to have a free market and healthy competition.
- The policy for new entrants to the marketing and distribution of petroleum products needs to be reviewed to encourage new entrants. Marketing rights for transportation fuel to be made conditional to a company investing Rs.2000 crores in Exploration and production. Refining, Pipelines or Terminals. Such investment should be towards additionality of assests and in the form of equity, equity like instruments or debt with recourse to the company.
- Pricing policy for hydrocarbons should be based on allowing scarcity to be reflected in prices. This will create an incentive for conservation and efficient use of petroleum products.
- Expeditious setting up of regulatory mechanism for downstream sector including pipelines and natural gas.

New and Renewable Sources of Energy

89. Major programmes under Non-Conventional Energy Sector include power generation through wind, small hydro, bio-mass and solar energy, socially oriented programmes to meet rural energy demand such as National Project on Biogas Development (NPBD), National Programme on Improved Chulhas (NPIC), Integrated Rural Energy Programme (IREP), solar energy programmes for applications like lighting, water heating, cooking and pumping water for irrigation. The other programmes relate to hydrogen energy fuel cells, alternate fuel for surface transport, ocean energy etc. in which R&D activities are taken up at present.

90. Ninth Plan outlay contains a Gross Budgetary Support (GBS) of Rs.2,122.14 crore and an IEBR (Internal and Extra Budgetary Resources) of Rs.1,678 crore. At the initiative of the Prime Minister, a Special Action Plan (SAP) has been prepared by the Planning Commission for the "Rapid Improvement of Physical Infrastructure" including inter-alia, non-conventional energy sources. Under SAP a sum of Rs.200 crores was earmarked out of the total Gross Budgetary Support. The infrastructure related programmes included in the SAP are Small Hydro, Biomass, Cogeneration, Biomass Power, Biomass Gasifier and Solar Photovoltaic programmes. An amount of Rs.3,800.14 crores was approved as the outlay for the Ministry of Non-Conventional Energy Sources (MNES) for Ninth Plan.

Table – 18
Financial Progress
Financing of Central Sector investment during Ninth Plan (Figures in brackets are at 1996-97 price level) (Rs. Crore)

S.N.	YEAR	GBS	IEBR	OUTLAY
1.	9th Plan (Approved)	(2122.14)	(1678.00)	(3800.14)
2.	1997-98 (Actual)	224.38	361.69	586.07
		(212.40)	(342.38)	(554.78)
3.	1998-99 (Actual)	293.61	265.30	558.91
		(260.22)	(235.13)	(495.35)
4.	1999-2000 (R.E.)	314.65	500.42	815.07
		(263.09)	(418.41)	(681.50)
5.	First 3 Years(ant.)	(735.71)	(995.92)	(1731.63)
6.	Expected in last 2 yrs. *	(924.00)	(687.48)	(1611.48)
7.	Likely investment during 9th Plan	(1659.71)	(1683.40)	(3343.11)
8.	9th Plan likely utilisation in %	78.21	100.32	88.00

* Assumes @ 10% growth in nominal terms over the level of 1999-2000

91. It may be seen from the above that against the approved outlay of Rs.3,800.14 crore, Rs.1,731.63 crore is likely to be utilised in first three years of the Plan. This would be 45.56% of the Plan outlay on the basis of 1996-97 prices i.e. at constant prices. The balance 54.44% of the outlay is the investment required during remaining two years to achieve the Plan targets. However, going by the performance in the first three years it is most unlikely that the Plan outlay will be fully utilised.

Physical Progress :

92. The approved Plan targets were 1.26 million biogas plants, 19.6 million improved chulhas, 40 MW biomass gasifiers, 1200 MW of wind power (including private sector participation), 130 MW of small hydro (including private sector) and 314 MW of biomass power and cogeneration with the participation of private sector. The other programmes were solar photovoltaic, solar thermal systems and R&D activities in respect of new technologies.

Mid-Term Approach for Non-Conventional Energy Programmes

93. Some of the important issues that emerged from the mid-term appraisal of new and renewable sources of energy sector are given below :

i) In order to assess total functionality of biogas plants already installed, evaluation studies by independent agencies or NGOs are to be initiated. Repair and maintenance works are needed in non-functioning plants. MNES has to initiate comprehensive evaluation studies for all their programmes and get their future programmes approved on the basis of the results of such studies.

ii) The present mode of implementing the Improved Chulha Programme is confined to the poorest of the poor in rural areas and on individual beneficiary basis. Unless it is taken up for an entire village including beneficiaries from higher income groups in the village, the programme may not become successful. Attention is also required to other aspects like training the local people to construct chulhas of better quality and proper maintenance and make them available at prices affordable to the villagers.

iii) The Solar Energy Programmme is implemented through subsidies for solar devices/gadgets. MNES should take up the issue of providing subsidy with concerned Departments./Ministries and justify the solar programme and subsidies provided in comparison with other programmes like LPG, kerosene etc.

iv) There is great potential for meeting the energy requirement in rural and remote areas through non-

Table – 19
Progress in the Power Generation and Socially Oriented Programmes during Ninth Plan

Sl. No.	Type	IX Plan Target	1997-99 Actual	1999-00 Likely Ach.	Likely in 1st 3 yrs	Likely in next 2 yrs	Likely achiv. (%IX P)
1.	Wind Power(MW)	1200.00	123.00	100.00	223.00	777.00	1000.00 (83.33)
2.	Small Hydro(MW)	130.00	39.19	33.52	72.71	70.10	142.71 (109.77)
3.	Biomass Power(MW)	314.00	85.00	40.00	125.00	80.00	205.00 (65.29)
4.	Urban & Ind. Wastes(MW)	50.00	3.00	6.00	9.00	37.00	46.00 (92.00)
5.	Biogas Plants(lakh nos.)	12.60	3.24	1.68	4.92	5.08	10.00 (79.36)
6.	Imp. Chulhas (lakh nos.)	196.00	46.10	24.00	70.10	79.90	150.00 (76.53)

conventional energy sources. At present the contribution from such energy sources including small hydro power upto 3 MW capacity is around 1.5% of the total installed power generation capacity. There is scope for substantially increasing the contribution from these sources.

v) Necessary publicity and awareness programmes have to be taken up in order to propagate benefits the programmes offer to the people.

vi) In the context of the national objective of providing electricity to all, the electrification of remote areas is of major concern to MNES, REC, SEBs and other agencies. It is necessary for REC/SEBs/State Governments to undertake a survey of the remote villages so as to identify the villages to be electrified through decentralised energy sources.

vii) The approach to non-conventional energy programmes in remaining years of the Plan and beyond should be goal oriented so as to meet the energy requirement from different sources like biogas, solar, small hydro, wind, biomass etc. for villages located in remote and inaccessible areas. It is required to identify the remote villages and prepare schemes to meet basic energy needs like lighting, cooking and heating through decentralised energy sources. In this approach the village as a whole is to be taken into account as against the present method of targeting individual beneficiaries and providing systems on individual basis involving significant capital subsidies. Wherever feasible, community systems have to be put up to meet energy requirements in the villages.

viii) It is necessary to have uniform guidelines for SEBs to purchase power from non-conventional energy sources like wind, small hydro, biomass and co-generation operated by private entrepreneurs. Independent Renewable Power Producers (IRPP) should have the right to wheel power through existing transmission lines of the SEBs on payment of reasonable charge for selling the power to third party. All hurdles in this regard need to be resolved so as to encourage IRPPs to make their contribution to the promotion of power generation from non-conventional energy sources.

ix) Government has transferred all small hydro power projects above 3 MW capacity but up to 25 MW capacity to MNES, which were earlier within the purview of the Ministry of Power. Performance of MNES in the development of small hydro projects up to 3 MW capacity needs to be improved. Many of the hydro projects up to 25 MW capacity would have inter-state problems. It will cast enormous burden on Government if the financial benefits as are available to projects up to 3 MW capacity are to be extended up to 25 MW- capacity projects as well.. All these aspects need to be addressed urgently so that the policy announced by the Government can be given concrete shape.

x) There is great potential to meet the basic energy requirement (cooking, heating etc.) of the rural people through non-conventional and renewable sources of energy. People's participation through Panchayats, other local bodies, co-operatives and NGOs would go a long way in realising objectives of such programmes. The achievement in Sagar island in Sundarban area, West Bengal, has shown what community participation can do through NGOs like Ramakrishna Mission and all India Women's Conference; these examples are worth emulating for meeting the energy requirement in rural areas.

CHAPTER 25

TRANSPORT

Introduction

An efficient transport system is absolutely necessary for sustaining other crucial economic activities. Considering the inadequacies and imbalances in transport, the Ninth Five Year Plan envisaged devising a comprehensive package to address various issues facing the sector. It emphasised the need for improving the capacity and quality of the transportation system through technological upgradation and removing distortions in the inter-modal mix by evolving a rational tariff and investment policy. It also laid stress on improvement of the self-financing capacity of this sector and on the need for ensuring an improved transport system to provide speedy, efficient, safe and economical carriage of goods and people. While the achievement of objectives and targets set for some sub-sectors has been very encouraging, the progress in case of others is not as rosy. The targets set for roads and ports sector are likely to be achieved while in case of railways shortfalls in achievement of physical and financial targets as well as policy objectives are anticipated. In what follows, the position with respect to each sub-sector has been elaborated.

RAILWAYS

2. Considering India's continental size, geography and resource endowment, it is natural that Railways should have a lead role in the transport sector - not to mention other considerations such as greater energy efficiency, eco-friendliness and relative safety. However, Indian Railways has experienced a continuous decline in its position relative to the road transport system. Some reduction in share in favour of road transport was to be expected and is in line with trends elsewhere but there is reason to believe that in India this has been excessive. A skewed tariff policy, which overcharges freight, concentration on movement of bulk goods at the cost of high value commodities, sub- optimal investment strategy and inadequate emphasis on technological upgradation have all contributed to creating this situation.

3. The broad objective of the Ninth Plan is to strengthen the capacity of the railway system as the prime carrier of long distance bulk freight and passenger traffic. In order to achieve this, Railways needs to concentrate on multiplexing and electrification of dense corridors, improve reliability of operations, containerise and optimise total systems operations. The financial position of the Railways also needs urgent attention.

Review of Performance in 1997-98 and 1998-99

Physical

4. The performance of Railways in carriage of freight measured in terms of originating tonnage was below target in 1998-99. The passenger traffic for this period was also below target. Freight performance was on target in first and third year of the Ninth Plan (see Table 1) but fell short of expectation during second year of the Plan. However, the freight traffic in terms of billion NTKM (Net Tonne Kilometre) fell short of targets both during 1997-98 and 1998-99. As shown in Table 1, during first three years of the Plan, the annual growth in originating tonnage was a little over 10 million tonnes. This was at par with the annual growth achieved during the corresponding period of the Eighthr Plan but was considerably short of the Ninth Plan targets. As against a growth rate of 5% assumed for freight traffic during the Ninth Plan, the likely growth in this sector was expected to be only around 3.2% by 1999-00.

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Table 1
Growth of Cargo Traffic

	9th Plan	1997-98		1998-99		1999-2000	
	Target	Target	Actual	Target	Actual	Target	RE
Revenue Earning Traffic a) Originating tonnage (million tonnes)	525.0	430.0	429.4	450	420.9	450.0	450.0
b) Traffic carried (billion net tonne kms)	353.0	293.5	284.3	308.2	281.1	301.9	301.5
c) Average lead(km)	673.0	682.5	662.0	684.8	668.0	671.0	670.0

5. The sluggish growth in freight traffic in 1998-99 is partly due to a slower-than expected growth of the economy but it is also a reflection of the fact that the Railways is becoming uncompetitive in moving freight. The decline in traffic in 1998-99 has arisen mainly in movement of coal and steel where the freight offerings are primarily from the core sector (Annexure-I).

6. Table 2 indicates the growth of passenger traffic in first three years of the Plan. The growth of passenger traffic has clearly exceeded targets laid down for the Plan period. If this rate of growth continues, the achievements would far exceed the targets set in the Ninth Plan (2.63% for non- suburban and 3% for suburban traffic) especially for non- suburban traffic. With 1918 million passengers for 1999-2000 (Budgetary Estimates), the growth rate for non- suburban passenger traffic is already about 6.8%. The more rapid growth in passenger traffic as compared to freight traffic reflects the policy of subsidizing passenger traffic at the cost of freight traffic.

Financial

7. Outlays and expenditure of the Railway sector during the Ninth Plan along with the sources of financing have been indicated in Table 3. The likely Plan expenditure for first three years of the Plan works out to Rs.23,145 crore (at constant prices), which is 51% of the total plan outlay of Rs.45,413 crore. The utilisation of budgetary support provided to Railways in those three years works out to Rs.5,947 crore (at constant prices) which is about 50% of the total budgetary support of Rs.11,791 crore. The shortfall in expenditure is because the Railways could not realise its internal resource targets; mainly, the freight earning has been less due to change in pattern of commodity mix/lead, non-recovery of outstanding dues amounting to over Rs.1,500 crore from electricity boards and to the impact of the Fifth Pay Commission award on staff cost and pensions.

Table 2
Growth of Passenger Traffic

	9th Plan	1997-98		1998-99		1999-2000	
	Target	Target	Actual	Target	Actual	Target	RE
Passenger Traffic							
a) **Suburban**							
i) No. of passenger (million)	2989	2656	2657	2802	2725	2989	2823
ii) Passenger km (billion kms)	86.50	75.35	78.84	83.59	83.50	83.26	93.20
b) **Non suburban**							
i) No. of passengers (million)	1793	1660	1691	1729	1744	1918	1807
ii) Passenger km (billion kms)	312.90	275.95	301.05	306.15	321.10	339.35	335.50
c) **Total**							
i) No. of Passengers(million)	4782	4316	4348	4531	4469	4907	4630
ii) Passenger km (billion km)	399.4	351.3	379.89	389.74	404.60	422.61	428.70

Table 3
Outlay and Expenditure & Financing Pattern of Railways

(Rs. crores)

	Budgetary Support		Railway Borrowings		Internal Resources		Total	
Ninth Plan	11791			33622			45413	
	Outlay	Expdt.	Outlay	Expdt.	Outlay	Expdt.	Outlay	Expdt.
1997-98	1831 (1733)	1992 (1886)	3050 (2887)	2795 (2646)	3419 (3237)	3452 (3268)	8300 (7857)	8239 (7799)
1998-99	2200 (1950)	2185 (1937)	2900 (2570)	3217 (2851)	4400 (3900)	3455 (3062)	9500 (8420)	8857 (7850)
1999-2000 (Likely)	2540 (2124)	2540 (2124)	3000 (2508)	3000 (2508)	4160 (3478)	3425 (2864)	9700 (8110)	8965 (7496)

NB: Figures in parenthesis indicate outlay/expenditure at constant prices.

8. The targets of resource mobilisation (bonds, market borrowings as well as internal generation) in 1999-00 were also not likely to be achieved. Railways has taken certain new initiatives for raising revenue during 1999-2000 (Box).

New Initiatives for Raising Revenue

- Leasing of front break van in all passenger trains for parcel traffic.
- Recommence manufacture of parcel vans with a view to increasing parcel traffic.
- Running of special parcel trains between important stations and trading centres in which some space will be available on lease.
- Increase Minimum penalty for ticket- less travel from Rs.50 to Rs.250.
- Having obtained the necessary Cabinet approval, various steps are being taken for commercial utilisation of land/airspace. Pilot projects are being undertaken using public sector organisations like IRCON International and RITES under the Ministry of Railways as "special purpose vehicles" for ensuring that private initiative is brought into the development of land/airspace. Some specific steps taken by Railways include utilising the airspace above newly re-built railway stations for commercial purposes, undertaking afforestation activities, licensing vacant lands for growing vegetables and selling mature trees.
- Utilisation of its "right of way" for laying of optical fibre cables for telecommunication on the same lines as envisaged for commercial utilisation of land/airspace.

9. The likely expenditure is expected to be only around 92% of the Plan outlay this year mainly because the Railways has not been able to realise its internal resource generation targets. The Plan head-wise outlays/ expenditure for first two years and as budgeted for 1999-2000 may be seen at Annexure II.

10. It may be relevant to mention that in spite of increase in outlay on doubling in 1999-00 by around 40% as compared to 1998-99, the target of 2500 kms set for 2001-02 may not be achieved because only 710 kms (28.4%) was likely to be achieved in first three years of the Plan. Achieving the targets for EMU coaches also appears unlikely. Thus targets of rolling stock need to be scaled down in the terminal year of the Plan in view of reduced traffic targets. It is absolutely essential to prioritise projects which are cluttered with a profusion of uneconomic "new lines." The expenditure on these projects can be drastically reduced to boost expenditure where it is most needed. The achievement in respect of important programmes in first three years of the Plan is at Annexure-III.

Tariff Policy

11. Given the policy of cross subsidisation and several distortions arising from it, it has become imperative to rationalise tariffs and align passenger fares more closely with cost in order to reduce the extent of cross subsidisation. No significant progress has been made towards this objective.

12. Freight rates increased by around 12% in 1997-98 followed by a year in which there was no hike in those rates barring some modification in the freight structure. There was a modest increase in freight rates of about 4% in 1999-2000. The 2000-01 Budget Speech of the Minister of Railways envisaged a 5% increase in freight rate. Although the latest Railway Budget claims to have rationalised the fare structure, no tangible steps have been taken in this direction. On the contrary, the decision of not increasing the Second Class fare or increasing it marginally during the first three years since 1.4.94 (and consequently sparing more than 90% of inter-city passenger from any fare increase) implies that cross subsidisation has actually increased. The total subsidy on Second Class fares and suburban passenger traffic amounts to approximately Rs.3,000 crore. The profitability of coaching services is estimated on the basis of the expenses and earnings on different kinds of passenger segments and reflects their respective loss or gain. This estimate is available for 1997-98 and it indicates an overall loss of about Rs. 1,568 crore for ordinary passenger services (First Class, Sleeper Class and Second class). For First Class itself the loss is estimated at about Rs. 36 crore; the loss in Sleeper Class and Second Class is much higher at Rs. 98 crore and Rs. 1,434 crore. Quite clearly the Second Class contributes a predominant share of the overall loss for ordinary passenger services. The loss on account of passenger services on Mail/Express amounts to about Rs. 1,140 crore on Sleeper Class and Rs. 267 crore on Second Class.

13. Passenger services are estimated to account for 59% of the total traffic in 1999-2000 but contributed only 30% of the revenue. Freight services on the other hand, constituting 41% of railway throughput, are estimated to generate the balance 70% of the revenues. Thus rationalisation of tariff policy remains an area of concern and a phased adjustment over the remaining two years is absolutely crucial. The Railways has to correct these distortions by reducing the extent of cross- subsidy between freight and passenger in a phased manner. A Rail Traffic Authority on the lines of the Telecommunication Regulatory Authority may be set up with a mandate to fix tariffs on a rational basis with automatic adjustment based on cost of inputs, including fuel/electricity tariff.

14. The Railways has often raised a demand for financial compensation for Social Service Obligations borne by it. Any such compensation should be on the basis of an overall package which may take into account a time- bound programme of phasing out subsidies through appropriate fare and freight policies and reduction in operating expenditure.

Private Sector Participation

15. Considering the urgent need for creation of capital-intensive assets (especially permanent ways as opposed to rolling stock), private sector participation becomes crucial to Railways' funding plans. The response of the private sector has been rather lukewarm in most cases (Own Your Wagon Scheme-OYWS) and negative in some (Build Own Lease Transfer-BOLT).

16. One of the main reasons for lack of success of BOLT project is inequitable sharing of risk between the contractor and the Railways during project implementation, leading to bidders/contractors building an inordinately large component of unforeseen contingencies into the bid price. The committee constituted by Ministry of Railways to review the BOLT scheme has submitted an interim report which is under examination. So far, only 2 gauge conversion projects have been awarded under the BOLT scheme, out of which Viramgam-Mehsana on Western Railway was terminated after the agency had failed to adhere to the completion schedule while the other Mudkhed -Adilabad on South Central Railway is not progressing on prescribed lines. BOLT and OYWS are also being used for procurement of rolling stock. Details of funds mobilised through private sector show a decline (Table 4).

Table 4
Funds Mobilised through Private Sector

(Rs. crore)

	1997-98	1998-99 (Provisional)	1999-2000 (Targetted)
BOLT	284.20	92.25	87.60
OYW	236.24	192.85	127.91
Total	**520.44**	**285.10**	**215.51**

17. The Railways has recognised the massive potential of private participation and some initiatives have been taken. It has agreed in principle to enter into an agreement with M/s Gujarat Adani Port Limited (GAPL) for construction and maintenance of 53 kms of new rail link to Mundra Port. The line will be constructed and maintained by M/s. GAPL. Railways has taken steps to develop terminal facilities.

18. With the setting up of Indian Railways Catering and Tourism Corporation, the existing set-up of departmental and private catering would be upgraded. However, no significant steps have been envisaged for involving private sector in rail transport services in a major way. The private sector is not forthcoming either, for various reasons. The developer and the financier lack requisite confidence to invest in creation of rail assets. The Railways should identify projects with a high rate-of-return offer to the private sector based on the concept of Build, Own and Operate (BOO) or Build, Operate and Transfer (BOT).

19. Indian Railways now proposes to commercialise its right of way for laying optical fibre cables for telecommunications. There is a great deal of potential in this proposal since the Railways' right of way extends along 62,800 kilometres of track.

Investment Strategy

20. The Ninth Plan places emphasis on prioritisation of the very large portfolio of ongoing projects to manage them better. A tendency to spread resources thinly across several projects continues to be a major problem in the railway sector. The Railways has a large shelf of projects particularly under the categories "New Lines" and "Gauge Conversion" having a huge throw-forward of around Rs.20,000 crore and Rs.9,000 crore respectively. At the present rate of fund allocation, it will take about 40 years to clear the backlog for new lines and 11 years to complete gauge conversion projects. The highest priority must be given to projects which augment the capacity of the railway system in high- density corridors apart from investments needed for ensuring safety and reliability of the services. In this context, priority may be accorded to multiplexing and electrification of the system around the Golden Quadrilateral where it is under maximum strain.

21. The prioritisation exercise carried out by the Railways recently is not convincing; it has not taken cognizance of the likely availability of resources as well as the need to complete the projects in a reasonable time period. A fresh exercise of prioritisation which takes into account the above factors will certainly be more meaningful and is required to be undertaken urgently.

22. In order to strengthen the institutional framework and improve implementation of projects, Railways has decided to appoint nodal officers who would be responsible for execution of projects costing Rs.50 crore and above.

Improving Market Share

23. A growth rate of 5% in freight traffic has been assumed for the Ninth Plan period. In order to achieve this and improve quality of rail services, Railways has taken certain steps (Box).

Initiatives to Increase Market Share

- Reduction in the classification of some commodities and introduction of Volume Discounts to make Railways more competitive.
- Introducing the facility of two- point rake loading (as against one) at some stations and making available supply of rakes in less than 48 hours.
- Special package for the Steel sector to attract traffic.
- Introduction of high speed trains with new-technology wagons between Delhi and JawaharLal Nehru Port Trust (JNPT) by Container Corporation. This has resulted in reduction of transit time between Delhi and Mumbai from 95 hours to 48 hours.

24. However, keeping in view the target growth rate of 5% assumed during the Ninth Plan, the traffic would have to grow at a phenomenal rate of around 8% for the remaining two years of the Plan to achieve the projected figure of 525 million tonnes of freight by 2001-02. This seems highly unrealistic. On the other hand, the rate of growth in passenger traffic specially non-suburban is expected to overshoot Plan targets. For a proper balance between the rates of growth of passenger and of freight without detriment to the need for mobilization of resources, Railways has decided to increase the composition of trains to 24 coaches and restrict introduction of new trains strictly on the basis of costs and benefits. The Railways also needs to accelerate the programme of containerisation not only to promote inter-modal transport but also as a strategy for increasing its own market share and catering to high value traffic.

Productivity and Technology Upgradation

25. The Ninth Plan places special emphasis on improvements in productivity as a major strategy to increase capacity. In first year of the Plan, the efficiency index in respect of freight traffic — Net Tonne Kilometre (NTKM) — increased to 1894 NTKMs per wagon per day showing an improvement of 2.9% as compared to 1996-97. The wagon productivity targeted by Railways for the terminal year of the Plan at 1950 NTKM per wagon per day appears to be rather low (a growth rate of 1.17% during the Ninth Plan period as compared to a growth of 5.04% during the Eighth Plan period) and may have to be set at 2050 NTKM per wagon/day as against the original target of 1950 NTKM per wagon/day.

26. Railways is taking a number of steps to increase productivity. In the area of technological upgradation, it is phasing out inefficient and unreliable vacuum-braked four wheeler wagon stock and replacing it with eight wheeler air-braked bogie wagons. Railways has also entered into a contract for purchase and transfer of technology for making high horsepower electric and diesel locomotives, light weight, high capacity coaches and heavier rail in Railways' production units for increasing the throughput. It is also necessary to improve freight car designs to secure higher payload to tare ratios for freight and to improve speed differential between freight and passenger services, which in turn would also improve the traffic throughput in the system. Also in areas such as track maintenance and washing of coaches, productivity is being improved through progressive mechanisation. For improvement in signaling and telecommunications, Railways is going in for solid state interlocking, auxiliary warning system and optical fibre cables.

27. The total requirement of railway track renewal during the Plan period is estimated at 24,000 kms. In the first two years, 5917 kms of track have been renewed, The target for 1999-00 is 2550 kms. The likely achievement in the first three years is thus expected to be around 61% of the targeted Plan figure. Although track renewal is proceeding as per schedule, a more vigorous effort is required. Under rolling stock, it is planned to replace 350 diesel locos, 200 electric locos, 90,000 (four wheeler units) wagons, 750 EMU coaches and 4000 non- EMU coaches during the Ninth Plan period.

Organisational Restructuring

28. The Ninth Plan has emphasized the need for restructuring Indian Railways. As a starting point, it is being suggested that manufacturing units of the Railways should be split into units of cost and efficiency centers thereby generating pressure on efficiency and competition. The Plan also emphasized the need for distinguishing between the provision of track services, which is a 'natural monopoly' because of economies of scale, and the use of these services by individual freight or passenger rail operating companies which need not be a monopoly. These issues are being considered in an Expert Group set up by the Railways.

29. Historically, like Railways in other countries, Indian Railways too developed as a monolithic organization with controlling responsibility over all aspects of operations including development and maintenance of the network, operation of transport services and controlling its own production facilities as also determining the nature of services to be provided. As Indian Railways serves almost a captive market, it overlooked consumer preferences and priced its services without any regard to inter-modal competition. With increasing competition from other modes of transport, Railways needs to improve its efficiency. The trend all over the world is to restructure the Railway unit. Some countries have successfully achieved this.

30. Indian Railways would have to consider various options for restructuring which other countries have followed so as to adopt the one suitable to meet the objectives of rail development in India. The reorganization of Indian Railways is the most important pre-condition for increasing its market share and its successful survival.

Safety

31. Indian Railways is a labour intensive organisation. Hence, proper training and motivation of its labour force would directly impinge on the safety of the operations. The instances where human error has contributed to accidents are too many. About 75% of accidents are attributed to failure of Railway staff. While the staff is disciplined and dedicated, it lacks adequate training. There is great scope for improving the training of all categories of employees, particularly drivers, so that they are able to deal efficiently with all crisis situations. A diploma in engineering would increase the efficiency of train drivers just as much a training at ITI would improve the skills of other skilled employees.

32. Regular training of labour force has to be accompanied with introduction of latest technology. Indian Railways is still struggling with outdated technology of the 1960s. In its priorities, the outlay on safety is not given highest priority compared to other competing demands. Maintenance – both corrective and preventive – needs more importance. In particular, the dynamic brake system has to be in working order. Use of state- of- the-art signalling and telecommunication devices along with a skilled and motivated labour force will reduce the incidence of accidents and improve the image of the Railways as a carrier of goods and services.

33. Railways is also aware of this and thus growing emphasis is being placed on safety over the years. In fact, the increased outlay on track renewals and signalling and telecommunication in the Annual Plan 1999-2000 is expected to improve safety. During 1997-98, there were as many as 35 collisions and 289 derailments. Various measures have been taken to improve safety of operations (Box).

Safety Measures : A Step Forward

- Drivers and Guards of trains running on high speed "A" and "B" routes have been given "walkie talkie" sets for making emergency contacts. As this has proved to be effective, this facility will be made available on all passenger trains in the first phase. It will be provided in the goods train in the second phase, next year.
- To prevent accidents due to human failure, track circuiting is being provided every year in a planned manner and around 600 stations are being covered annually.
- To prevent overshooting of signal by the driver inadvertently, a pilot project of Radio based Automatic Train Control System is being tried out in Delhi- Mathura section experimentally and, if successful, it would be further extended.
- In order to reduce accidents due to rail fractures and welding failures, intensive checking is being done with the help of Ultra Sonic Flaw Detectors (USFD) .
- Creation of a Fund by Railways and utilisation of "Member of Parliament Local Area Development Scheme" for converting unmanned level crossing to manned level crossings and for construction of road overbridges/ underbridges at busy level crossings to prevent accidents at such sites. A separate Plan Head would also be created to focus attention on the funding for such works and monitoring their progress.
- Financing of construction of road over- bridges and under- bridges out of a dedicated fund to be financed through levy of cess on diesel would increase the availability of resources for the safety oriented programme.
- Setting up of a Railway Safety Review Committee for undertaking a complete review of Railway operations from the point of view of safety.

34. Railway safety also depends critically upon adequate investment in track renewal and other safety related investment. This aspect has been reflected and there is a large and growing backlog of tracks to be replaced. The Report (Part-I) of a Railway Safety Review Committee set up by the Railways has recommended a one-time grant of Rs.15,000 crore to take care of all aspects of railway safety. There is no specific provision for this one time grant in the Ninth Plan outlay. To this extent the shortfall in actual expenditure is even greater than brought out in Table 3 above.

Externally Aided Projects

35. There are three multilateral and five bilateral on-going externally aided projects in Railways with an estimated cost of Rs.3,007 crore. Barring one multilateral project, the other projects are expected to be completed during the Ninth Plan period. Details of all the projects, including the cost, projected date of completion, etc. are given in Annexure IV.

Environment & Rail Transport

36. Sale of cigarettes /bidis on railway platforms and inside passenger trains has been banned with effect from 5th June 1999, the Environment Day.

37. Afforestation drive on railway land is proposed to be launched vigorously. This would ensure proper utilisation of available land, prevent encroachment and in the long run meet the needs of wooden sleepers and benefit Railways financially.

Task Ahead

38. Indian Railways has been consistently making profits and offering a return on capital. It once had a very healthy operating ratio. Contrary to the Plan objective there is steady deterioration in the operating ratio. The operating ratio which was 86.2 per cent in 1996-97 is likely to touch 99% by the end of 2000-01.

39. Other negative factors include persistence with the policy of cross subsidisation which encourages greater deployment of capacity into money - losing passenger traffic and moves profitable freight traffic away from Railways, continuation of the sub- optimal investment strategy favouring investment in unremunerative projects at the cost of much needed capacity augmentation and technology upgradation and failure to adapt to changing marketing environment in customer needs and competitive services. All these could spell financial ruin of Railways. The marginalisation of Indian Railways and consequent transport bottlenecks may strangulate an economy which is increasingly becoming open. This may in turn have adverse impact on the competitiveness of the industry. It is therefore necessary that the Railways take steps to regain its past glory. Some of these steps are listed below:

(i) Regain share in freight traffic with the help of a rationalised tariff policy. Heavy cross subsidisation on passenger fares to be phased out gradually over the remaining Plan period. Consideration should be given to establishing a Rail Tariff Regulatory Authority for Tariff fixation.

(ii) Restructure Indian Railways in order to attract greater private sector investment into it and maximise efficiency by generating competition. The manufacturing units of the Railways could be spilt into independent corporation.

(iii) Augment capacity on the saturated high density corridors particularly on the Golden Quadrilateral by undertaking doubling, opening up of alternative routes through new lines, gauge conversion etc.

(iv) Greater emphasis on completion of existing projects. Proper prioritisation of all ongoing projects to derive maximum benefits to ensure that resources are not spread too thinly across projects and the existing throw-forward position of the projects is not jeopardised further.

(v) Accelerate the programme of containerisation, not only to promote inter-modal transport but also as a strategy for increasing its own market share and catering to high value traffic.

(vi) Enlarge the scope of private sector participation gradually in acquiring rolling stock through innovative leasing schemes.

(vii) Upgrade safety infrastructure through induction of technical aids to support human element and enhance asset reliability.

(viii) Expenditure on staff has been increasing at a rapid pace. To maintain staff cost including pension at the level of 45% of gross traffic receipt in the year 2010, the staff strength will have to be reduced to around 12 lakh.

ROADS

40. Although the country has a large road network of over 3 million kilometres most of this is of very poor quality and needs massive investment to provide adequate road connectivity. The network needs upgradation both in terms of carpet width and riding quality. The Ninth Plan has emphasised the need for improving the accessibility by linking up villages with all-weather roads and strengthening as well as improving crucial sections of the highway network through phased removal of deficiencies and multi-laning of high density corridors.

Growth of National Highways

41. The National Highway (NH) network in the country grew from 21,440 kms as on 1st April, 1947 to 34,298 kms at the beginning of the Ninth Plan. In first three years of the Ninth Plan, 17,712 kms of State road has been added to the NH network.

Central Sector

42. In the Central sector, an outlay of Rs. 8,862.02 crore has been provided for the development of roads in the Ninth Plan. The bulk of it is for development of National Highways and related programmes. In first three years of the Plan, a sum of Rs. 4,625 crore (Rs. 5,234 crore at current prices) was likely to be spent. Programme-wise outlay/expenditure details for the Ninth Plan and Annual Plans 1997-98, 1998-99 and 1999-2000 are given in Annexure-V.

43. Utilisation of the outlay in the first two years was only 75% of the budgeted amount mainly because of procedural bottlenecks for release of funds and for sanction of works.

Physical Targets and Achievements

44. The position about physical achievements is not very rosy either. While progress with respect to four-laning is satisfactory, achievement in other programmes is deficient (Annexure- VI).

45. A tendency to take up schemes without adequate project preparations and lack of emphasis on "Quality of Entry" have led to a longer completion period and cost overruns. It is, therefore, necessary that attention be paid to proper project preparation and to issues such as land acquisition and removal and relocation of utilities. It is also equally important that monitoring of the road projects particularly the large ones is done on a regular basis to identify bottlenecks and find remedial measures to speed up their completion.

National Highway Development Project (NHDP)

46. The National Highway network suffers from a large number of deficiencies especially in the high density corridors. A National Highway Development Project (NHDP) has been finalised to ease congestion and improve the riding quality of country's major NH corridors. (BOX)

National Highway Development Project

NHDP consists of Golden Quadrilateral (GQ), a key portion of the road network linking Delhi, Mumbai, Calcutta and Chennai , and an additional North-South corridor connecting Kashmir to Kanyakumari and an East-West corridor which links Silchar to Saurashtra. This network has been taken up on a priority basis for upgradation to four laning and six- laning in some stretches to meet the network requirement for arterial highways and to remove congestion. The development of these corridors would improve the mobility in these corridors apart from resulting in saving in the vehicle operating cost.

The total length of the project is 13,252 kms {Golden Quadrilateral – 5952 kms, North-South, East and West corridors (Spurs) 4,400 kms, North, South, East and West corridors (Spines) 2900 kms}. In the first phase, it is proposed to complete the development of GQ by December, 2003. Under GQ, 732 kms. of the works for a value of Rs. 1,770 crore was awarded during financial year 1999-2000. Another 1,905 kms. is planned to be awarded during financial year 2000-01.

New Sources of Funding

47. Recognising the need for a dedicated source to finance road construction, the Government decided to create a Road Development Fund for the development and maintenance of National Highways. The Fund will be financed through a cess on fuels which was imposed in the Ninth Plan. It will be dedicated to (i) Development and maintenance of National Highways (for financing the NHDP till its completion and thereafter for NH works); (ii) Development and maintenance of other State roads; and (iii) construction of Rail overbridges and railway safety works and unmanned railway crossings and (iv) Development and maintenance of rural roads. Since this Fund would not be sufficient to meet the requirement of developing the road sector, it would be necessary to augment it by raising levy on fuels periodically and cess on sale of vehicles, spare parts and through other direct or indirect user charges.

Toll Roads

48. The amendment to National Highways Act, 1956 empowers the Government to levy toll on select stretches of National Highways. Apart from bridges and bypasses, the Ninth Plan envisages levy of tolls on some of the newly four- laned developed roads. A beginning has been made with the imposition of a toll on Amer (Jaipur)-Kotputli Section on National Highway-8. (BOX).

Kotputli-Amer :
First Tolled Four Laned National Highway

- Kotputli-Amer Section (86 kms) on NH-8 was upgraded from 2-lane to 4-lane divided carriageway in 1997 at a cost of Rs. 115 crore. As a first case, Government decided to levy the fee on this section and entrusted it to the National Highway Authority of India (NHAI).
- NHAI developed it as a toll highway with all facilities viz. toll plazas, road signs, road markings, enforcement of no parking, accident relief measures, stalled vehicles removal, maintenance unit, guard rail, bus base, truck parking facilities, ambulance, petrol facilities, road safety barriers.
- Toll is collected on prescribed rates per trip or on the basis of toll passes which give some discounts to frequent users.
- Private agency is collecting tolls on contractual basis and would pay a sum of Rs. 30 crore per annum to NHAI.
- Toll collection has begun from 30th March, 1998. Due to general resistance from truckers (such incidence could increase with more four laning and bringing those stretches under tolling), the Government would have to take a view in the matter. Several writ petitions have been filed in various High Courts and in the light of the litigation alternative methods of raising resources would have to be found for the development of roads.

49. State Government of Gujarat has taken an initiative to develop a high density NH route – Ahmedabad-Rajkot (200 kms.) with the financial assistance of Housing and Urban Development Corporation (HUDCO). This section would be operated as toll road by the State Government on behalf of the Central Ministry of Surface Transport.

Private Sector Participation

50. To a large extent, road construction will remain in public domain. However, there is a niche for private sector participation in developing the road sector where the traffic densities are extremely high and where the facility provided results in appreciable saving in time and vehicle operating cost. To provide a legal framework for private participation, the National Highways Act, 1956 was amended in June, 1995. A number of steps have been taken to encourage private sector participation in road sector. (BOX)

Steps taken to promote private sector investment in National Highways

- Government / NHAI authorised to provide capital grant up to 40% of the project cost to make the project viable.
- Government agreed to permit activities like development of housing as an integral part of BOT road projects. For this purpose, profits ploughed back to the road projects within a maximum period of three years would be treated as investment in infrastructure for tax benefits.
- A five-years corporate tax holiday and deduction of 30% on profits for the purpose of tax in the next five years, to be availed of in 20 years of commissioning of the project.
- External Commercial Borrowings up to 35% of project cost permitted.
- Import duties on identified modern high capacity road construction equipment removed.
- Foreign Direct Investment up to 100% (with total foreign equity up to Rs. 1,500 crore) allowed.
- Specialised equipment allowed to be imported free of custom duty.
- Two separate Model Concession agreements (MCA) for projects costing more than Rs. 100 crore and less than Rs. 100 crore have been finalised by Ministry of Surface Transport.

51. As a result of various measures taken, a number of projects of bypasses and over-bridges have been taken up by the private sector (Box).

Private Sector Investment - National Highways

Private Sector has been awarded 20 projects at an estimated cost of more than Rs. 1,000 crore. Of those projects, 7 pertain to construction of bypasses while remaining 13 are construction of bridges. These stretches of Highways are located in Maharashtra, Gujarat, Rajasthan, Andhra Pradesh, Tamil Nadu, Madhya Pradesh, Karnataka and Uttar Pradesh. Seven of these projects have been completed and the others are at various stages of implementation.

52. Several States have also taken steps to involve private sector in the development of roads.

Private Sector Investment – State Sector Roads

53. Gujarat has developed a long term plan for development of roads which envisages a major role for private sector. The State Government has decided to improve two State highways, viz. Ahmedabad-Mehsana and Vadodara-Halol through private participation on BOT basis at a cost of Rs. 506 crore. The projects will be implemented through special purpose vehicles formed for this purpose. The work on Vadodara-Halol was planned to be started in the current year while work on Ahmedabad-Mehsana is in progress. Government of Gujarat is participating in these projects in the form of equity and debt.

54. In Maharashtra, four expressways Mumbai-Pune, Mumbai-Nashik, Mumbai-Sawantwadi and Mumbai-Talasari are taken up under the programme of privatisation. In addition, a number of projects relating to construction of bypasses, flyovers and bridges are being taken up with similar private participation.

55. In Madhya Pradesh 12 bridge projects and one bypass have been completed by the private sector. The State Government has also given maintenance work for 135 kms of road on BOT basis.

Externally Aided Projects

56. The Ninth Plan outlay includes a sum of Rs. 5007.05 crore for taking up externally aided projects. There are 11 such on-going works with an estimated cost of completion of Rs. 4,595.88 crore. Against this an expenditure of Rs. 1,927.65 crore was incurred up to March, 1999. A provision of Rs. 1,055.10 crore has been made in the Annual Plan 1999-2000. Most of the projects are likely to be completed by the end of Ninth Plan. Details are in Annexure-VII.

57. The reason for delay in the use of funds especially from the Overseas Economic Cooperation Fund (OECF) was that these loans were signed before the projects were fully prepared. However, future loan agreements would be signed only after projects are ready for implementation.

State Sector Roads

58. An outlay of Rs. 30,469 crore has been provided in the Ninth Plan for development of roads in the State sector. During the first two years a sum of Rs. 9,513 crores (at 1996-97 prices) was likely to be spent. Considering the finances of States and the past expenditure on development of roads, it is highly unlikely that the States would be achieving the financial targets indicated in the Ninth Plan. Considering the constraint of resources and the emergent need to meet the requirement of State roads, it is necessary that alternative sources of finance be explored.

Village Connectivity

59. A large part of expenditure on roads in the State sector is accounted for by rural road links. The Ninth Plan envisages linking up all villages in the country with all weather roads. It is estimated that a sum of Rs. 50,000 – Rs 60,000 crore is required for this purpose.

60. Data about village connectivity programmes of all the States are not available. It is estimated that these programmes now cover about 60%, an increase of 3 percentage points over the figures at the beginning of the Ninth Plan. In all, 13 States/UnionTerritories (UTs) achieved village connectivity up to 85 per cent and above, 5 States achieved connectivity between 60 per cent and 85 per cent and 14 States/UTs had connectivity levels below 60 per cent.

61. Ropeway is an alternative to village connectivity in remote and backward areas where difficult terrains pose a major obstacle to building rural roads. Although this proposal is comparatively more capital intensive, it can solve the connectivity problem of remote areas such as the North-East.

62. One of the main problems is the absence of coordination and integration of various programmes of construction of rural roads in the country. The main source of financing of rural roads is the normal State Plan provision. In the Union Budget 2000-01, a new scheme called the "Pradhan Mantri Gramodaya Yojana" has been announced with the objective of undertaking time-bound programmes to fulfil critical needs of the rural people. A sum of Rs. 2,500 crores will be earmarked for the launching of a nationwide programme of constructing rural roads and improving rural connectivity. Central Assistance will be provided under this scheme to the State Governments for implementing specific projects in the sector.

63. Integration and coordination of various Centrally Sponsored and State programmes for rural roads is essential to create durable assets and eliminate duplication of efforts and avoidable wastage of limited resources. It is also important that there should be a single agency in the State to implement and coordinate all road development programmes.

64. There is also a need to find resources for the development of rural roads. Efforts need to be made to organise communities and mobilise people's contribution to this programme.

Road Transport

65. Road Transport Programmes are implemented both in State and Central sectors. . In the State sector, a major scheme relates to operation of road transport services through State Road Transport Undertakings (SRTUs). There has been improvement in the physical performance of SRTUs in first three years of the Ninth Plan. Vehicle productivity, staff productivity and fuel efficiency have improved substantially (see Annexure – VIII).

66. There is however, variation in the performance of productivity parameters among the SRTUs. Undertakings in Andhra Pradesh, Gujarat, Karnataka and Uttar Pradesh have exceeded the Plan target for vehicle productivity, while Bihar, Jammu & Kashmir, Madhya Pradesh, West Bengal and North Eastern States remain deficient and are not likely to reach the target. Bus- staff ratio maintained by SRTUs in Punjab, Haryana, Arunachal Pradesh , Andhra Pradesh, Karnataka, Rajasthan, Uttar Pradesh and Himachal Pradesh are satisfactory. State Road Transport Corporations in Bihar , Madhya Pradesh, West Bengal and North Eastern States, however, maintained a very high bus- staff ratio and are not likely to reach the Ninth Plan target. The SRTUs in Andhra Pradesh, Gujarat, Karnataka, Kerala, Goa, Punjab and Uttar Pradesh have achieved the Plan target in respect of staff productivity but Bihar, J&K, Madhya Pradesh and North Eastern States performed poorly and may not achieve the target. In respect of fuel efficiency, all SRTUs are likely to achieve the target of the Ninth Plan. SRTUs in Andhra Pradesh, Gujarat, Karnataka, Kerala, Maharashtra, Punjab and Uttar Pradesh have already exceeded the target.

Financial Health of State Road Transport Undertakings

The financial performance of 48 SRTUs whose resources are assessed in the Planning Commission continued to be unsatisfactory. Their losses are increasing year after year. In the beginning of the Ninth Plan, they recorded a net loss Rs. 770 crore which increased to Rs. 1,196.08 crore in 1997-98 and Rs. 1,385.79 crore in 1998-99 and Rs. 1,576.60 crore in 1999-2000 (LE). (Annexure - IX)

Main reasons for the loss are uneconomic fare, delay in revision of fares, concessional travel, operations on uneconomic routes, impact of pay revisions and higher bus- staff ratio. There is urgent need to improve productivity of SRTUs through measures like replacement of overaged buses, improvement in the productivity of operational staff and improved management practices. The States should also allow timely increase in fares and bring down bus- staff ratio and reimbursement of concessions.

67. At the time of formulation of the Plan, the contribution to plan assessed for 48 SRTUs put together was Rs. 3,026.42 crore of which Additional Resource Mobilisation (ARM) through passenger fare revision was estimated at Rs. 10,189.79 crore. These projections are not likely to materialise (Annexure – X). The SRTU-wise position is given in Annexure - XI. In order to meet the demand for Road Transport passenger services, it is necessary to encourage private sector to provide safe and reliable services.

68. In the Central sector, major schemes relate to road safety programmes, training to drivers and instructors, introduction of new technology and pollution control. During first three years of the Plan, the tasks taken up include refresher training programmes for drivers, setting up five regional training centres and awareness programme on road safety through road signals, road signs, road markings, T.V. spots on unmanned railway crossings, Essay competitions, procurement of cranes and ambulances to rescue road victims/damaged vehicles, strict enforcement of traffic laws and studies on road traffic flows. For vehicles on the roads of NCT (National Capital Region) of Delhi, compliance of India-2000 norm was made compulsory from April 1, 1999 and of a modified India-2000 from April 1, 2000. Reduction in sulphur content in fuel supplied through petrol pump outlets was also effected. In other steps, guidelines have been issued to the State Governments to charge 25% less composite fee in respect of multi-axle vehicles than the rate applicable for conventional two-axle vehicles to popularise use of the former. Some State Govts. have already permitted the differential rate of composite fee. Octroi has been abolished by most State Governments (except in five states of Maharashtra, Rajasthan, Haryana, Punjab and Orissa) to facilitate uninterrupted traffic flow.

69. The approved outlay for the Ninth Plan and approved outlay and expenditure for the Annual Plans in the Central Sector and State Sector are given in Annexure – XII.

PORTS

Development of Major Ports

70. Eleven major ports handle 90 per cent of India's port throughput. The contribution of five of those ports (Kandla, Vizag, Chennai, Mumbai, and Calcutta/Haldia) is 68 % of the total traffic handled by the major ports.

71. The Ninth Plan has projected a traffic of 424 MT (million tonnes); that includes throughput by minor ports. There was impressive traffic growth at major ports in the first year of the Plan. The actual traffic handled by major ports increased from 227.26 MT in 1996-97 to 251.66 MT in 1997-98. The growth however has been stagnant thereafter. It seems that the port traffic target fixed for the Plan may not be achieved. A major shortfall in the Plan arget could be in Coal and POL (petrolelum, oil & lubricants) traffic. Details of traffic handled at major ports commodity - wise and Port-wise are in Annexure XIII & XIV.

72. The Plan visualised a capacity addition of 159 MT at major ports to take the total capacity to 374 MT by end of the Plan. However, the likely addition may be only 157 MT (though the schemes financed by the Port Trusts is about 104 MT and by the private sector /captive users 53 MT). Likely Port-wise capacity as on 31.3.2000 is given in Annexure XV. In first three years of the Plan, only 40 MT capacity is likely to be added but the progress of various port development schemes indicates that the target of capacity augmentation in the Ninth Plan would be well achieved.

73. Productivity improvement at major ports is another important thrust area in the Plan. According to Port-wise details, productivity has improved at all ports (Annexure XVI). Through productivity improvement, it is expected, a capacity equivalent of 11MT-15 MT could be added during the Plan. The augmentation of capacity and improvement in productivity should make for a situation where berths wait for ships rather than ships for berths.

Productivity At Major Ports

- Productivity indicators have witnessed considerable improvement during first three years of the Plan. For example, the average turn-round of ships has come down from 7.5 days in 1996-97 to 4.7 days in 1999-2000. Similarly, average pre-berthing waiting time has come down from 1.7 days to 0.9 day during the same period (i.e. waiting time is less than one day).
- Port-wise analysis show that productivity indicators vary widely from port to port. For example, average pre-berthing waiting time (all ports) was reported at 0.9 day in 1999-2000 but at the port level it varied between 0.2 day (Calcutta, Cochin & New Mangalore) to 2.5 days (Tuticorin). Likewise, average turn- round time (all ports) was reported at 4.7 days but it varied from 1.7 days (JNPT) to 6.8 days (Chennai).

74. An outlay of Rs. 9,428 crore has been approved for the ports sector as a whole during the Plan. It excludes Rs. 262 crore for survey vessels. Out of the outlay, Rs. 7,528 crore (79.8%) is expected to be mobilised though internal and extra budgetary resources (IEBR). The likely utilisation of Plan outlay during the first 3 years is 29%. Utilisation of GBS (Gross Budget Support) is 41.4% and IEBR 26%. The utilisation of IEBR is just 9.8% in New Mangalore, 15.5% in Vizag and 16.5% in Mormugao. This could be attributed to delays in sanctioning of new schemes; many sanctioned projects are yet to pick up, slow progress of work by contractors, contractual disputes/ litigation and inability of ports to mobilise resources through IEBR. The details of port-wise outlay and expenditure are given in Annexure-XVII.

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75. The funds approved in the Ninth Plan for 142 new schemes (each costing more than Rs. 5 crore) constitute only 26 per cent of the total estimated cost of the schemes. This implies that outlay is thinly distributed over a large number of new projects. This is particularly true for schemes at Chennai, Cochin, JNPT and Mormugao ports. It would be desirable to prioritise the new schemes to be taken up during remaining years of the Plan.

Private Sector Participation

76. The Ninth Plan has envisaged a crucial role for the private sector/ captive users in augmentation of capacity at various ports..To this end, a number of steps have been taken in the past and during the current Plan period. These have borne fruit now and several projects are being taken up in the private sector or through the resources provided by the captive users. (Box).

Private Sector Participation in Ports-Central Sector

- The Ninth Plan has envisaged private sector/captive users investment of Rs. 8,000 crore with capacity addition to the tune of 76 MT.
- Thirteen private sector/captive port projects of 54 MT capacity with an investment of Rs. 3926 crore have already been approved and they are at different stages of construction. One project — Fifth Oil Jetty at Kandla — has been completed. One of two berths of a private container terminal at JNPT has been set up; the second berth was expected to be completed by November 1999.
- Thirteen more private sector/captive users port projects are in the pipeline. Out of these eight projects for 34.4 MT capacity involving an investment of Rs. 3,400 crore are under bidding process. Five projects of 6 MT capacity with an investment of Rs. 550 crore have been identified for which bids are to be invited.

Corporatisation of Major Ports

77. The functioning of major ports under various Port Trusts is operationally inflexible; due to delay in the decision making process they are unable to respond quickly to market situation. Some steps have been taken (Box) towards corporatisation of the major Ports, but the process needs to be expedited.

Corporatisation of Major Ports

- Central Government has already decided to establish a company for the new port under construction at Ennore which is expected to be commissioned by July 2000. Articles of Association and Memorandum of Association for registration of the company have been prepared. Proposals for financial structuring of the company are under examination.
- It has also been decided that existing major ports may be corporatised, starting with JNPT and Haldia.

Externally Aided Projects

78. For externally aided projects an outlay of Rs. 1,200 crore has been provided during the Ninth Plan. Among them two important projects are construction of a new Ennore port and mechanised coal handling facilities at Paradip.

79. The originally estimated cost for Ennore is Rs. 593.90 crore. The ADB (Asian Development Bank) loan component is US $ 150.15 million out of which an amount of $ 80 million has been disbursed so far. The overall physical progress of the scheme was 87% up to February, 2000.

80. The mechanised coal handling facilities at Paradip was originally estimated to cost Rs. 587.41 crore. The ADB loan component is US $ 134.85 million against which US $ 91.94 million has been disbursed. The physical progress was 70% up to February, 2000. This project is likely to be completed by December 2000.

Dredging Coporation Of India (DCI)

81. An outlay of Rs. 695 crore has been approved for DCI during the Ninth Plan out of which GBS is Rs. 65 crore. DCI has important schemes like acquisition of Trailer Suction Dredger (TSD) of 6500 C.U.M (two numbers), Cutter Suction Dredger (CSD) of 2000 CU.m/ pump hour, TSD of 4500 CU.m (three numbers) and replacement of CSD Acquarius. An expenditure of Rs. 325.00 crore was likely to be incurred by DCI in first three years of the Plan.

Development of Minor Ports

82. The traffic handled by minor ports has increased from 24.93 MT in 1996-97 to 35 MT in 1998-99. Currently, they account for nearly 12% of the total traffic. Among the maritime States, the contribution by Gujarat is 70% of the minor port throughput. The likely expenditure is Rs. 81.33 crore in first 2 years of the Plan against the approved outlay of Rs. 318.0 crore.

83. Various maritime states like Gujarat, Andhra Pradesh and Orissa have embarked upon ambitious port development programmes through private sector participation.

Inland Water Transport

84. Important schemes under implementation by Inland Waterways Authority of India (IWAI) are construction of terminals at Ghaighat, Patna and Karimganj, Pandu Terminal, fairway development and navigational aids. An amount of Rs. 84 crore was likely to be incurred by IWAI in first three years of the Plan. The details are given in Annexure-XVIII.

85. A Loan Interest Subsidy Scheme (LISS), which was introduced in 1983 for the acquisition of new inland vessels at a subsidised interest rate of 5.5%, has been modified recently to make it more effective. The subsidy will now be available for vessels registered under any State Act (in addition to Inland Vessel Act, 1917) as also for acquisition of second hand vessels. The scheme will be reviewed again to assess its need and continuation.

86. Under Centrally Sponsored Schemes (CSS) important projects under implementation are terminal facilities in river Hooghly in West Bengal, terminal facilities in Kerala, capital dredging of rivers Mandovi, Zuari and Mapusa in Goa, and hydrographic survey in rivers Ghagra, Gandak and Kosi.

Private Sector Participation in Ports – State Sector

- Gujarat has taken the lead in the development of port infrastructure through private sector. Gujarat Maritime Board has identified six ports out of ten green field ports exclusively for development by private sector.
- The first development phase of Pipavav has been completed in the State and work on the second phase is on hand. Similarly, the first phase of development of the Mundra Port (comprising a jetty) was completed and the Port became operational from September 1998.
- In- principle approval has been given to Dholera, Dahej (L.N.G terminal) and Maroli port projects as well.
- Captive users like Gujarat Ambuja Cement (Mul Dwarka), Reliance Petroleum Ltd. (27 MT at Sikka), and Sanghi Cement (Kutch) are also adding port-handling facilities in Gujarat.
- Orissa has signed an MOU with the M/s International Sea Port Ltd. (ISPL) to develop Dhamra Port with private investments through Build, Own, Operate, Share and Transfer (BOOST) route. The planned capacity augmentation is 10 MT. Environmental clearance from Ministry of Surface Transport was awaited. The port is scheduled to be operational by July,2002.
- In Andhra Pradesh, the development of a deep water port at Kakinada was taken up with ADB loan assistance. Three berths have been completed and all of them have been privatised and are under operation (through Operate, Maintain, Share and Transfer, OMST, route. Contract to build another port at Krishnapatnam through private sector has been awarded.

87. Central Inland Water Transport Corporation (CIWTC), a public sector undertaking (PSU) active in river water transport, has been incurring losses since its inception. During 1997-98, Corporation incurred a net loss to the tune of Rs. 51.72 crore. The accumulated loss as on 31.3.1998 was reported at Rs. 447.07 crore. A revival package to improve CIWTC's financial performance is under consideration of the Government.

88. Under State sector, the likely expenditure is Rs. 32 crore in first two years of the Plan against the approved outlay of Rs. 89.00 crore under Inland Water Transport.

SHIPPING

89. India's 102 shipping companies together own a

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fleet 517 vessels with a GRT (gross registered tonnage) of 7.09 Million. Shipping Corporation of India (SCI), the country's largest carrier, owns 112 ships with 2.95 million GRT, accounting for 42% of national tonnage. The share of Indian flag ships in the overseas sea-borne trade of the country has been hovering around 30% during the last few years, although the volume of cargo carried by them increased from 42.66 MT in 1992-93 to 53 MT in 1996-97 and 63.53 MT in 1997-98.

90. Liberalisation and simplification of ship acquisition, a process which was initiated in the Eighth Plan, has continued into the Ninth Plan. To buy vessels, the earlier requirement of approval by Ship Acquisition Licensing Committee of Department of Shipping, Ministry of Surface Transport, has been dispensed with. All vessels except launches, boats and barges have been put under Open General License (OGL) to make their imports easier.. In spite of this, there is likely to be considerable shortfall in the achievement of the Ninth Plan target. For example, it may be realistically hoped that SCI would place order/ acquire 21 vessels (including 5 vessels already ordered/ acquired) aggregating 16.85 lakh DWT while the the Plan target was to order/acquire 53 vessels totalling 28.34 lakh DWT. (Annexure XIX).

25 91. The slow progress in tonnage acquisition is due to 1) difficulty in raising external commercial borrowings (ECB); 2) prevailing market condition which is highly depressed where charter/ freight rates have fallen considerably especially in dry-bulk and liner sector; 3) considerable changes in the trade pattern which has compelled SCI to quit many of its projects.

92. SCI has been granted the status of "Mini Ratna" which would entail enhanced delegation of financial powers to the state-owned undertaking as far as investment decisions are concerned and also help the national flaghip to add more tonnage to its fleet.

93. In addition, it is expected that the SCI would be able to acquire/ order (on part- ownership basis) two or three LNG (liquefied natural gas) carriers during the Plan period. SCI has already signed an MOU for one such sophisticated tanker jointly with M/s Enron and M/s. Mitsui OSK Lines for transportation of LNG to M/s Dabhol Power Company (DPC). SCI is making an investment of US$ 11 million, representing a 20% share in this LNG transport consortium. With this SCI – and India – makes a debut into this highly capital- intensive sector. Currently, none of the Indian companies owns a LNG carrier.

94. For the Ninth Plan an outlay of Rs. 5,752 crore has been approved for SCI. The likely expenditure in the first three years of the Plan was estimated at Rs. 1,797 crore. The details are given in Annexure XX. The net profit after tax of SCI was Rs. 201.3 crore in 1998-99 against Rs.246.2 crore in 1997-98. During 1999-2000 the anticipated net profit was Rs. 160 crore.

Director General (Shipping)

95. An outlay of Rs. 160 crore (of which NBS is Rs. 60 crore) has been approved during the Ninth Plan for Director General (Shipping). Important schemes envisaged are acquisition of simulators (Phase III) and Welfare schemes for the benefit of Seamen. The expenditure in first three years of the Plan was estimated at Rs. 27.60 crore. The low utilisation of the Plan outlay is due to non-finalisation of an agreement with the Government of Japan for acquisition of simulator under grant-in-aid programme.

CIVIL AVIATION

96. An outlay of Rs.11,112.37 crore — comprising budgetary support of Rs.495.37 crore and Internal and Extra Budgetary Resources of Rs.10,617.00 crore — has been approved for Ninth Plan of the Ministry of Civil Aviation. Details of the organisation-wise outlays and the expenditure incurred/anticipated in first three years of the Plan are given at Annexure-XXI.

Policy Framework for Ninth Plan

97. The objective in the Ninth Plan is to provide adequate capacity in the civil aviation sector, ensure healthy competition between private and public sector and make air travel safe and reliable. It is proposed that all operators equitably share the financial losses of taking air services to backward and remote areas in the country.

98. In order to promote orderly development of domestic air transport services in a healthy competitive environment, Government brought out a framework of policy in January 1997. Further, to attract foreign investment, a new policy for foreign equity investment in the civil aviation sector was announced in April 1997, allowing 100% NRI/OCB equity and 40% foreign equity participation in domestic airlines. However, equity participation by foreign airlines, directly or indirectly, has been kept out of domestic air services.

99. The development of airports in the country has remained in the domain of public sector. However, a beginning has been made to involve private sector in the development of airport infrastructure. Success has been achieved in developing green-field airport in the country. With the formulation and operationalisation of new policy

Airport Infrastructure Policy

A comprehensive policy on Airport Infrastructure was formulated in December 1997. The Government has recognised the need for the participation of private parties (including foreign ones) in management of airports both for reasons of bridging the gap in resources and to bring in greater efficiency. An Airport Restructuring Committee in the Ministry of Civil Aviation would identify existing airports where such private sector involvement was contemplated for development and upgradation of infrastructure. The committee would also prepare a shelf of green-field airport projects.

The Government will create a fair and independent airport regulatory board comprising representatives of Ministry of Civil Aviation, DGCA (Director General of Civil Aviation) and airport and airline operators to redress grievances over fixation of tariff rates, allotment of slots, working of air traffic controllers and allocation of space in the airports.

it would be possible to attract much needed private investment in airport infrastructure.

100. To encourage tourism, the Government has decided to declare existing airports at Bangalore, Hyderabad, Goa, Ahmedabad, Cochin airport at Nedumbassery, Amritsar and Guwahati as international airports

Air Transport Agreements

101. Capacity shortages in passenger traffic have been noticed on several international sectors connecting India such as Delhi-London, Delhi-Frankfurt and Delhi-Hongkong. Besides causing hardship to prospective travellers, shortages result in loss of potential trade and tourists to the country. There is, therefore, an urgent need to mitigate the capacity constraints through appropriate measures including liberal grant of traffic rights to the international carriers having regard to the fleet limitations of Air India.

Private Sector Initiative In Airport Infrastructure

A new airport at Nedumbassery near Cochin has been constructed and commissioned in May 1999 by Cochin International Airport Limited (CIAL), a company promoted by Kerala State Government with equity participation from a large number of non-resident Indians and financial institutions. This is the first of its kind which has been completed with the initiative of State Government. Airports Authority of India has provided CNS equipment as its equity in the share capital of CIAL subject to a maximum of Rs.11 crore.

Government has also approved in principle setting up of new airports at Bangalore, Hyderabad and Goa with private sector participation. State Governments will be choosing joint venture partners to build and operate the new airports.

102. The achievements during first three years of the Plan and the major issues/thrust areas in respect of the various organisations are as under:-

Air India

103. An outlay of Rs.3,664.00 crore has been approved for Air India (AI) in the Ninth Plan. The anticipated expenditure of Air India in the first three years of the Ninth Plan is Rs.1,501.22 crore, which is substantially lower than the approved outlay of Rs.2,269.44 crore for the period. Main reason for the shortfall is deferment of purchase of 7th Boeing 747-400 aircraft amounting to Rs. 617.95 crore and of certain capital schemes due to resource constraints.

104. The growth in capacity and traffic carried by Air India at the end of the Eighth Plan and during first three years of the Ninth Plan are shown in Annexure-XXII.

105. The capacity available with Air India decreased by 8.9% (Estimated) at the end of three years of the Ninth Plan. The annual traffic carried by it also dropped by 4.9% during the period. AI's load factor increased to 63.4% in 1997-98, decreased to 61.5% in 1998-99 and thereafter increased to 63.2% (Estt.) in 1999-2000.

106. The financial performance of Air India during first three years of the Plan period is indicated in Annexure - XXIII.

107. The net loss incurred by the carrier decreased from Rs.181.01 crore in 1997-98 (Rs. 296.94 crore in 1996-97) to Rs.174.48 crore in 1998-1999 and Rs. 89.75 crores (Revised Estimate) in 1999-2000. This would show that the financial performance of Air India is improving in the Ninth Plan. The results for 1999-2000 were adversely affected by the increase in aircraft fuel prices (impact of Rs. 177 crore as compared to previous year prices).

Indian Airlines

108. An outlay of Rs.3,640.75 crore has been approved for Indian Airlines (IA)in the Ninth Plan. The anticipated expenditure in first three years of the Plan is Rs.1,503.94 crore as against the approved outlay of Rs.1,640.01 crore for the period.

109. The growth in capacity and traffic carried by IA during the period are shown in Annexure -XXIV.

110. The capacity available with Indian Airlines increased by 4.28% at the end of first three years of the Plan. The traffic carried by it registered a growth of 2.82 % during the period. The load factor of Indian Airlines decreased to 64.1% in 1997-98, 63.1% in 1998-99 and thereafter increased to 64.0% (R.E) in 1999-2000.

111. The financial performance of Indian Airlines during the period is shown in Annexure - XXV.

112. After making losses for eight years since 1989-90, IA has started earning profits from 1997-98. The cmpany earned net profit of Rs.47.27 crore in 1997-98, Rs.13.12 crore in 1998-99 and Rs.35.25 crore (R.E.) in 1999-2000. The turn- around is attributed mainly to improved product and aircraft utilisation and higher productivity achieved through route rationalisation.

113. The market share of Indian Airlines, which was hovering around 61-64% in the last three years of the Eighth Plan, declined from 66.6% in 1997-98 (Est.) to 60.4% in 1998-99 (Est.). The airlines has targeted a market share of around 60% in remaining years of the Plan.

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114. Kelkar Committee, appointed by the Government to suggest turn around strategy for Indian Airlines recommended induction of additional capital into the company. Based on the recommendations, the Government has approved induction of fresh equity of Rs.325 crore, linking it to aircraft acquisition by the company.

Airports Authority of India (AAI)

115. Airports Authority of India (AAI) had proposed to spend Rs.3421.87 crore in the Ninth Plan period. The anticipated expenditure in first-three years of the Ninth Plan is Rs.1,356.38 crore which is substantially lower than the approved outlay of Rs. 2107.51 crore for the period.

116. The domestic and international passenger traffic handled at various airports in the country increased marginally from 36.6 million in 1997-98 to 37 million in 1998-99. The domestic and international cargo traffic declined marginally from 705.59 thousand tonnes in 1997-98 to 699.15 thousand tonnes in 1998-99

117. The achievements during first two years of the Plan in capacity, demand and augmentation plan for passenger terminals at the five international airports are set out at Annexure - XXVI. Similar achievements for international cargo terminal at the international airports in the Ninth Plan period are summarised at Annexure - XXVII.The progress of miscellaneous works at the international airports is summarised at Annexure - XXVIII. The financial performance of AAI is at Annexure – XXIX.

118. AAI has been improving its financial performance in the Ninth Plan. Its net profit was up from Rs.196.14 crore in 1997-98 to Rs.208.42 crore in 1998-99. The net profit estimated for 1999-2000 is Rs. 208.40 crore.

119. A Task Force on Infrastructure under the chairmanship of Deputy Chairman, Planning Commission, was considering a proposal by Ministry of Civil Aviation for restructuring the existing airports at Delhi, Mumbai, Chennai and Calcutta through long-term lease to make them world-class. The move would help in attracting investments to improve the infrastructure and services at these airports. AAI would develop the other airports with the lease rental receipts from those four airports. The consortia/lessee would be chosen through a global bidding process. The process is likely to be completed by the end of year 2001.

Pawan Hans Helicopters Ltd. (PHHL)

120. An outlay of Rs.209.20 crore (at 1996-97 prices) has been approved for PHHL in the Ninth Plan period. The anticipated expenditure of the company in first three years of the Plan (at current prices) is Rs.133.95 crore, which is substantially less than the approved outlay.

121. Disinvestment Commission has recommended dilution of Government equity in PHHL. The proposal is under consideration.

Directorate General of Civil Aviation

122. An outlay of Rs.27 crore has been provided in the Ninth Plan for the Directorate General of Civil Aviation (DGCA). The requirements of DGCA are mainly towards purchase of accident investigation/research equipment and also for certain minor construction works. The anticipated expenditure during first three years of the Plan is Rs. 8.85 crore.

Bureau of Civil Aviation Security

123. An outlay of Rs.25.00 crore has been approved for Bureau of Civil Aviation Security (BCAS) in the Ninth Plan. The anticipated expenditure during first three years of the Plan is Rs.5.94 crore.

124. Major scheme proposed to be taken up by BCAS pertains to setting up of the Civil Aviation Akademi at an estimated cost of Rs.16.87 crore. The scheme is yet to be formulated in detail.

Indira Gandhi Rashtriya Uran Akademi (IGRUA)

125. The projected requirement of the IGRUA for the Ninth Plan is of the order of Rs.35 crore which is mainly meant for upgradation of a simulator (Rs.16.50 crore) and purchase of 6 TB-20 aircraft (Rs.9.54 crore). The anticipated expenditure incurred by IGRUA in the first three years of the Plan is Rs.27.0 crore.

Hotel Corporation of India (HCI)

126. A provision of Rs.89.55 crore has been made for Hotel Corporation of India in the Ninth Plan, which is essentially for repayment of term loans and renovation of existing properties. No new major schemes are proposed to be taken up during the Plan period. The anticipated expenditure incurred by HCI in first three years of the h Plan is Rs. 38.71 crore.

127. The Disinvestment Commission had recommended that HCI's hotels at Mumbai and Delhi be sold as separate units through a transparent and competitive process after undertaking proper valuation through a Financial Adviser.

Conclusion

128. A Mid Term review of the performance of the transport sector brings out achievements and short-falls in each of its sub-sectors. Although the Railways has taken a number of steps to improve its performance, it remains deficient in several respects. The self-financing capacity of Railways has deteriorated as it has failed to rationalise its tariff policy. While there is no let- up in growth of passenger traffic there is a significant shortfall in loading of freight. The tendency of Indian Railways to spread resources thinly over a large number of projects continues to be an area of concern. Apart from tariff rationalisation, there is a need to take up an accelerated programme of containerisation, concentrate on augmenting capacity on the high density corridors instead of taking a large number of unviable projects. Steps are urgently needed to restructure Indian Railways so as to attract increasing amount of private investments and to maximise efficiency.

129. The process of strengthening and expanding the road system to meet the passenger traffic requirements is under way. The targets set for major programmes are likely to be achieved. The self-financing capacity of the sector has also improved through levy of a cess on fuel. A National Highway Development Project (NHDP) has been launched and work on the project is progressing on schedule. Considering the task ahead it is necessary that there is no let- up in raising resources. Private sector participation in development of roads has also begun to show results. The momentum built up needs to be carried to the remaining years of Ninth Plan and also into the Tenth Plan.

130. The target for capacity creation at major ports during Ninth Plan is likely to be achieved. Although there has been improvement in productivity of terminals there is a long way to go before a situation is created when berths waiting for cargo. This will require injection of competition among the major ports for cargo holding facilities. The efforts in this direction need to be speeded up.

Annexure-I

Freight Traffic of Indian Railways

		1997-98				1998-99				1999-2000	
		BE		Actual		BE		Actual		BE	
		MT	NTKM (in billion)	MT	NTKM (in billion)	MT	NTKM (in billion)	MT	NTKM (in billion)	MT	NTKM (in billion)
1	Coal	2050	125.12	208.8	127.52	218.0	135.85	197.6	120.83	214.0	133.75
2	RawMaterial for Steel Plants	43.0	15.48	37.81	13.39	43.0	15.7	36.1	12.74	41.0	14.64
3	Pig Iron & finished Steel	15.0	15.38	11.79	11.56	14.0	14.0	10.8	11.26	12.0	12.24
4	Iron ore for exports	11.0	6.38	12.16	6.81	12.0	6.84	11.5	6.35	12.0	6.84
5	Cement	38.0	22.8	37.46	20.95	38.0	23.18	36.8	21.18	39.0	22.62
6	Foodgrains	26.0	35.1	26.31	30.96	27.0	33.08	27.7	33.27	27.0	31.82
7	Fertilisers	25.0	23	26.67	22.02	27.0	24.3	27.7	22.89	28.0	23.8
8	POL	31.0	17.83	30.73	19.66	33.0	21.44	33.1	20.13	35.0	22.05
9	Other goods	36.0	32.4	37.8	31.39	38.0	32.3	39.7	32.44	42.0	34.65
	Total	**430.0**	**293.48**	**429.4**	**284.25**	**450.0**	**306.69**	**420.9**	**281.1**	**450.0**	**301.91**

NTKM : Net Tonne Kilometre

Annexure II

Plan Headwise Outlays and Expenditure for Indian Railways

(Rs. in crore)

S. No.	Plan Head	1997-98 Target	1997-98 Actual	1998-99 (Target)	1998-99 Prov.	1999-2000 (Target)
1.	Rolling Stock	4002	3614	4305	4265	39053
2.	Workshops & Sheds	120	130	175	144	250
3.	Machinery & Plant	65	49	80	63	110
4.	Track Renewals	1250	1367	1425	1391	1500
5.	Bridge Works	85	73	100	66	125
6.	Gauge Conversion	910	1130	650	673	645
7.	Doublings	195	291	510	447	625
8.	Other Traffic Facilities	125	128	220	147	220
9.	Signalling & Safety	230	251	350	310	375
10.	Computerisation	45	31	60	28	70
11.	Electrification	350	319	340	328	350
12.	Other Electrical Works	70	66	150	94	130
13.	New Lines	400	400	500	391	600
14.	Staff Quarters	60	45	60	51	55
15.	Staff Welfare	55	56	55	48	55
16.	Users' Amenities	80	89	100	91	130
17.	Other Specified Works	65	40	65	39	55
18.	Inventories	10	-83	75	91	170
19.	M.T.P.	170	146	250	184	300
20.	Railway Research	3	5	10	8	10
21.	Investment in PSUs	10	92	20	-	20
	Total :	**8300**	**8239**	**9500**	**8857**	**9700**

Annexure -III

Physical Targets for Ninth Five Year Plan and Likely Achievements in the first three years

S No.	Area of activity	Ninth Plan Targets	1997-98	1998-99	1999-00	Likely achievement in 1st three years
1.	New Lines (Kms.)	819	26	224	241	491
2.	Gauge Conversion (Kms.)	3710	847	693	541	2081
3.	Doubling (Kms)	2500	160	260	290	710
4.	Track Renewals (Kms)	13922	2950	2967	2550	8467
5.	Railway Electrification (Kms)	2334	445	617	500	1562
6.	Rolling Stock (Nos.)					
	Diesel Locos	785	153	177	131	461
	Electric Locos	851	221	170	130	521
	Coaches (Conventional)	10909	2030	2253	2159	6442
	EMUs/MEMU/DMUs	1973	205	213	250	668
	Wagons (FWUs)	136000	27865	25235	18750	71850

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Annexure-IV

Provision for Externally Aided Projects 1999-2000

(Rs. Crore)

S.No	Name of the Project	Total Cost	Loan No./ Credit No.	Budgetary Provision	IEBR	Total Plan Provision for 1999-2000	External Assistance (Disb) 1999-2000	Non-aid (7-8) 1999-2000	Likely PDC
1	2	3	4	5	6	7	8	9	10
Multilateral									
1	1st Railway Project	654	857-IND	30.0	-	30.0	11.0	19.0	31.3.2004
2	2nd Railway Project	1605	1140-IND(ADB)	60.0	-	60.0	34.4	25.6	30.6.1999
3	Rail Sector Improvement Project		ADB Loan	250.0	-	250.0	170.0	80.0	-
	Subtotal	2259		340.0	0.0	340.0	215.4	124.6	
Bilateral									
4	(a) Koraput -Rayagada Project	54.07	SFD-3/188	2.0	-	2.0	2.0	0.0	31.12.2000
	(b) Lanjigarh -Titlagarh Doubling	108.5		11.9	-	11.9	7.0	4.9	31.12.2000
5	CATC System for Metro Railway, Calcutta	31.75	French Credit	3.6	-	3.6	3.6	0.0	30.6.1999
6	Procurement of 3 phase AC/DC Traction Drives	95	French Credit	36	-	36	36	0.0	-
7	Modernisation of Signalling System	459	KFW Loan	5.5	-	5.5	4.0	1.5	31.12.2001
	Subtotal	**748.32**		**59**	**0.0**	**59**	**52.6**	**6.4**	
	Total	3007.3		399.0	0.0	399.0	268.0	131.0	

Annexure – V

CENTRAL ROAD SECTOR OUTLAY/EXPENDITURE

Sl.No	Scheme	9th Plan 1997 -2002 Outlay	1997-98 Outlay	1997-98 Expend.	1998-99 Outlay	1998-99 R.E.	1999-2000 Outlay
1	National Highways						
	I) Externally Aided						
	a) Externally Aided (RW)	1496.95	469.10	404.54	346.80	283.41	249.00
	b) Counterpart funds (RW)	584.56	150.00	83.76	115.00	102.80	123.00
	c) Externally Aided (NHAI)	2079.04	50.00	150.00	376.00	107.17	570.87
	d) Counterpart funds	846.00	0.10	50.00	80.00	56.00	123.00
	e) Strengthening of PIC	0.50	0.10	0.10	0.10	0.10	0.10
2	Other Schemes NH(O)	2753.34	491.24	491.24	675.50	707.13	772.41
3	Works Under BRDB	358.00	60.00	60.00	85.00	85.00	103.00
4	E&I Works	79.00	20.00	19.00	20.00	20.00	30.00
5	Development & Planning	0.20	0.01	0.00	0.01	0.00	0.10
6	Strategic Roads under Roads Wing	13.49	2.50	3.99	2.50	7.50	2.00
7	Strategic Roads under BRDB	18.60	2.50	2.50	2.50	3.50	7.60
8	SBA Roads	0.64	2.50	0.64	1.00	0.00	0.00
9	R&D Planning Studies	23.64	5.00	4.14	20.00	4.50	10.00
10	Training under World Bank	3.69	0.20	0.29	0.20	0.20	1.70
11	Other training	0.46	0.05	0.01	0.05	0.05	0.20
12	Machinery & Equipment	20.00	5.00	5.00	5.00	5.00	5.00
13	NHAI (Investment)	551.00	500.00	290.00	500.00	101.00	160.00
14	Charged Exp.	32.41	0.00	0.00	0.00	22.41	5.00
	TOTAL	**8862.02**	**1880.80**	**1565.31**	**2229.76**	**1505.87**	**2163.08**

Annexure VI

Physical Targets and Achievements during 9th Plan
Roads & Bridges – Central Sector

Schemes	9th Plan Target	Likely Achievements during 1997-98	1998-99	1999-2000	Achv. 1997-2000	Balance 2000-02
1	2	3	4	5	6	7
Widening to 2-lanes (Kms)	1194	164	217	218	599	595
Widening to 4-lanes (Kms)	202	49	127	29	205	-
Strengthening Weak 2-lanes (Kms)	2908	340	471	584	1395	1513
Bypasses (Nos)	20	0	1	4	5	15
Major Bridges (Nos)	40	6	8	7	21	19
Minor Bridges including ROB's (Nos)	226	18	49	44	111	115

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Annexure - VII

FINANCING OF EXTERNALLY AIDED ROADS / BRIDGE PROJECTS

Sl.No.	Projects	Likely cost of completion	Likely date of completion	Total Expdr. Upto 3/99	Balance amount as on 1/4/99	Budget allocation 1999-2000
1	Second World Bank on going contracts (PB, HR & OR)	875.10	Oct.,.2000	502.92	292.18	151.00
	Tenders awarded in 97-98 (MP, MH & WB)	650.43	April,2001	239.23	411.20	190.00
2	OECF (IDP-81) UP	150.93	Feb., 2000	108.91	47.02	35.0
3	OECF (IDP-91), Naini Bridge	393.00	April, 2003	4.84	388.15	#
4	OECF (IDP-92), AP	377.00	May, 2002	17.48	359.52	#
5	OECF (IDP-100) OR	173.00	March 2002	0.23	172.77	#
6	OEFC (IDP-101), UP	120.00	April, 2002	0.25	119.75	#
7	JICA (Grant-in-aid), NIZAMUDDIN Bridge		Work completed in March, 1998			
8	ADB-I (AP, HR & UP)	312.60	completed in March 1998	299.81	12.79	4.50
9	ADB-II (KR, KNT & RAJ)	322.42	Substantially completed	296.87	25.24	16.73
10	ADB-III, (AP, HR, RAJ, BR & WB)	1221.40	June 2001	377.10	844.30	#
11	OECF (Tourism), UP & BR) Balance work	-	-	-	-	-

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657.87 crore consolidated amount for ADB-III and OECF projects being carried out by NHAI

OECF – Overseas Economic Cooperation Fund
JICA - Japan International Cooperation Agency

Annexure - VIII

Performance of State Road Transport Undertakings

Sl. No.	Performance Indicator	9th Plan Target	1997-98	1998-99	1999-2000
1.	Vehicle productivity (km. Per bus held per day)	302.00	277.88	282.61	290.76
2.	Bus Staff Ratio (on fleet operated)	7.3	7.52	7.43	7.24
3.	Staff Productivity (km. Per worker/day	44.5	40.91	41.73	43.81
4.	Fuel Efficiency (kms. per litre)	4.5	4.49	4.51	4.54

Annexure.-IX

NET PROFIT / LOSS IN STATE ROAD TRANSPORT UNDERTAKINGS

(Rs. Crore)

Name of the SRTU	9th Plan estimates 1997-2002	1997-98 actual	1998-99 actual	1999-2000 (L.E.)	Total of 1997-2000 (3+4+5)	Total Balance To reach IX Plan Estimates
1	2	3	4	5	6	7
Andhra Pradesh	473.41	-49.73	-98.64	-95.03	-243.40	716.81
Arunachal Pradesh	-43.05	-8.81	-10.82	-9.96	-29.59	-13.46
Assam	-88.37	-22.43	-23.59	-25.23	-71.25	-17.12
Bihar	-262.53	-25.3	-39.18	-34.49	-98.97	-163.56
Kadamba (Goa)	-16.56	-2.5	-3.7	-0.85	-7.05	-9.51
Guajarat	148.11	-210.72	-156.73	-159.82	-527.27	675.38
Haryana	37.97	-45.96	-72.23	-107.59	-225.78	263.75
Himachal Pradesh	-317.96	-10.96	-16.25	-50.10	-77.31	-240.65
Jammu & Kashmir	-213.84	-29.61	-34.24	-32.58	-96.43	-117.41
Karnataka	48.42	-62.37	-9.16	-13.56	-85.09	133.51
Kerala	-70.27	-51.00	-70.39	-59.51	-180.90	110.63
Madhya Pradesh	-18.95	-66.37	-80.83	-57	-204.20	185.25
Maharashtra	655.2	-169.64	-142.06	-344.70	-656.40	1311.60
Manipur	-14.94	-1.54	-1.99	-2.32	-5.85	-9.09
Meghalaya	-9.02	-3.34	-2.19	-3.45	-8.98	-0.04
Mizoram	-39.6	-6.46	-6.72	-8.02	-21.20	-18.40
Nagaland	-36.04	-7.94	-8.82	-9.32	-26.08	-9.96
Orissa	18.3	-13.95	-14.18	-16.58	-44.71	63.01
Punjab Roadways	-223.05	-53.3	-69.8	-91.65	-214.75	-8.30
Pepsu RTC	14	-29.92	-27.52	-27.41	-84.85	98.85
Rajasthan	53.15	-18.24	-37.47	-80.00	-135.71	188.86
Sikkim	-18.15	-4.04	-3.26	-8.32	-15.62	-2.53
Tamil Nadu	935.53	-225.92	-409.9	-289.16	-924.98	1860.51
Tripura	-25.96	-5.57	-6.43	-8.25	-20.25	-5.71
Uttar Pradesh	179.8	-44.97	-17.60	-32.33	-94.90	274.70
Calcutta STC	-381.79	-7.99	-4.45	-0.4	-12.84	-368.95
North Bengal	-136.85	-14.64	-12.81	-7.06	-34.51	-102.34
South Bengal	-157.21	-2.86	-4.83	-1.91	-9.60	-147.61
TOTAL	**489.75**	**-1196.08**	**-1385.79**	**-1576.60**	**-4158.47**	**4648.22**

Annexure - X

Contribution to the Plan by State Road Transport Undertakings

(Rs. Crore)

Plan	Contribution to plan	Of which ARM
I. 9th Plan (Target)	3026.42	10189.79
1. 1997-98 (Actuals)	(-) 808.92	789.60
2. 1998-99 (LE)	(-) 1099.85	1464.10
3. 1999-2000 (Estimate)	(-) 1188.65	1684.89
II. Total	**(-) 3097.42**	**3938.59**
III. Gap in nominal terms to be covered in 2000-2001 2001-2002	**6123.84**	**6251.20**

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Annexure XI

Contribution to Plan by State Road Transport Undertakings

(Rs. Crore)

Name of the SRTU	9th Plan Estitmates		1997-98 Actual		1998-99 Actual		1999-2000 Estimates		Total of 1997-98 1998-99 & 1999-2000		Gap to be covered during 2000-2002	
	Total	of which ARM	Total	of which ARM	Total	of which ARM	Total	of which ARM	Total	of which ARM	Total	of which ARM
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Andhra Pradesh	1340.45	2370.00	80.91	63.00	45.28	171.49	25.40	176.85	151.59	411.34	1188.86	1958.66
2. Arunachal Pr.	-33.05	4.95	-6.99	0.60	-9.86	0.85	-8.63	1.16	-25.48	2.61	-7.57	2.34
3. Assam	-63.37	21.22	-18.64	0.50	-20.04	2.07	-21.88	5.92	-60.56	8.49	-2.81	12.73
4. Bihar	-213.28	2.64	-24.35	0.45	-38.18	0.89	-41.28	10.07	-103.81	11.41	-109.47	-8.77
5. Goa (Kadamba)	-9.31	10.17	-2.10	0.98	-4.97	1.83	-7.38	4.30	-14.45	7.11	5.14	3.06
6. Gujarat	386.16	990.91	-179.75	67.70	-118.62	88.49	-128.37	47.53	-426.74	203.72	812.90	787.19
7. Haryana	169.37	237.98	-22.01	22.59	-47.34	43.96	-83.39	45.11	-152.74	111.66	322.11	126.32
8. Himachal Pr.	-293.67	117.59	-4.65	6.12	-9.60	12.60	-44.13	12.88	-58.38	31.60	-235.29	85.99
9. Jammu & Kashmir	-216.48	27.11	-29.25	1.30	-35.04	3.35	-33.81	7.60	-98.10	12.25	-118.38	14.86
10. Karnataka	6.34	737.55	-34.40	37.46	18.40	75.37	36.28	68.18	20.28	181.01	-13.94	556.54
11. Kerala	-90.52	332.66	-48.43	0.00	-60.37	5.21	-53.01	40.35	-161.81	45.56	71.29	287.10
12. Madhya Pradesh	17.55	153.30	-59.08	18.00	-76.25	24.00	-52.50	46.00	-187.83	88.00	205.38	65.30
13. Maharashtra	1328.37	1805.33	-41.53	158.11	-41.51	198.45	-209.66	386.14	-292.70	742.70	1621.07	1062.63
14. Manipur	-13.32	2.25	-1.26	0.20	-1.70	0.25	-2.04	0.33	-5.00	0.78	-8.32	1.47
15. Meghalaya	-4.57	4.77	-2.54	0.03	-1.39	0.03	-2.75	0.52	-6.68	0.58	2.11	4.19
16. Mizoram	-32.66	1.47	-5.29	0.21	-5.52	0.21	-7.26	0.30	-18.07	0.72	-14.59	0.75
17. Nagaland	-26.34	9.66	-6.39	0.27	-7.31	0.44	-7.56	0.99	-21.26	1.70	-5.08	7.96
18. Orissa	9.14	39.30	-12.02	1.09	-12.41	1.83	-14.02	7.32	-38.45	10.24	47.59	29.06
19. Punjab Roadways	-130.25	170.65	-40.05	0.00	-57.98	100.42	-81.15	63.19	-179.18	163.61	48.93	7.04
20. PEPSU RTC	2.55	95.04	-27.16	0.00	-25.60	16.59	-28.19	19.96	-80.95	36.55	83.50	58.49
21. Rajasthan	214.55	360.85	4.19	31.10	-13.96	66.66	-50.30	54.00	-60.07	151.76	274.62	209.09
22. Sikkim	-12.45	4.56	-4.04	0.00	-3.26	0.20	-6.82	11.60	-14.12	11.80	1.67	-7.24
23-41. Tamil Nadu	946.63	2065.81	-290.95	321.31	-311.24	0.00	-354.36	264.92	-956.55	586.23	1903.18	1479.58
42. Tripura	-22.71	1.51	-5.65	0.02	-6.43	0.08	-8.58	0.11	-20.66	0.21	-2.05	-8.70
43. Uttar Pradesh	239.76	470.33	-32.53	26.70	15.77	57.98	-34.88	91.14	-51.64	175.82	291.40	294.51
44. Calcutta STC	-298.02	54.22	-2.79	1.76	-1.25	5.10	-2.45	7.67	-6.49	14.53	-291.53	39.69
45. North Bengal	-73.95	77.71	-11.04	0.97	-7.01	1.23	-4.26	5.43	-22.31	7.63	-51.64	70.08
46. South Bengal	-100.5	20.25	-1.19	0.87	-4.07	1.90	0.01	4.05	-5.25	6.82	-95.25	13.43
TOTAL	**3026.42**	**10189.79**	**-828.98**	**761.34**	**-841.46**	**881.48**	**-1226.97**	**1383.62**	**-2897.41**	**3026.44**	**5923.83**	**7163.35**

Annexure- XII

Outlay & Expenditure — Road Transport

(Rs. Crore)

	Scheme	9th plan	1997-98		1998-99		1999-2000	
		Outlay	Outlay	Exp.	Outlay	Exp.	Outlay	Anti.
1.	Capital contribution to SRTCs	8.63	5.63	5.63	3.00	1.52	1.00	0.00
2.	Rroad Safety Programmes	37.42	2.57	1.89	8.40	4.40	5.66	4.95
	(i) Road Safety Cell	0.75	0.12	0.10	0.20	0.09	0.15	0.15
	(ii) Publicity measures	8.67	1.00	0.79	2.50	1.68	1.00	1.00
	(iii) Grant in aid	3.00	0.20	0.20	1.00	0.08	0.50	0.40
	(iv) Pollution testing equipment	6.00	0.50	0.30	1.50	0.64	1.00	0.50
	(v) Road Safety equipment	4.00	0.25	0.02	0.70	0.00	0.01	0.15
	(vi) National Highways/Patrolling scheme	15.00	0.50	0.50	2.50	1.91	3.00	2.75
3.	Training & Computer	4.45	0.26	0.50	2.10	0.26	0.68	0.64
	(i) National Institute of Road Safety	2.00	0.00	0.40	1.50	0.26	0.33	0.30
	(ii) Training of drivers in unorganised sector	0.75	0.15	0.00	0.25	0.08	0.15	0.15
	(iii) Training Programme (HRD)	0.50	0.01	0.00	0.15	0.05	0.05	0.40
	(iv) Computer System	1.20	0.10	0.10	0.20	0.13	0.15	0.15
4.	Research & Developmnent	1.15	0.20	0.10	0.20	0.00	0.15	0.00
5.	Strengthening of CIRT, Pune	4.65	0.20	0.00	1.00	0.40	1.00	1.00
6.	Misc. including Studies	3.70	0.36	0.33	1.30	0.24	0.51	0.35
	(i) Transport studies	1.50	0.20	0.20	0.50	0.07	0.25	0.19
	(ii) Data collection	0.50	0.05	0.05	0.10	0.06	0.10	0.05
	(iii) National data base network	0.95	0.00	0.00	0.50	0.00	0.01	0.00
	(iv) Control of Pollution of Motor Vehicle	0.75	0.10	0.08	0.20	0.11	0.15	0.11
	(v) Energy Conservation	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	TOTAL	**60.00**	**9.22**	**8.45 {7.99}**	**16.00**	**6.82 {6.04}**	**9.00**	**6.94 {5.18}**
	STATE PLAN	**6643.64**		***1146.70 {1085.48}**		***923.95 {818.89}**	**1226.37**	**934.96 {781.17}**
	GRAND TOTAL	**6703.64**		**1155.15 {1093.48}**		**930.77 {824.93}**	**1235.37**	**941.90 {787.54}**

* Stands RE

Note: Figures in bracket are at constant prices.

Annexure-XIII

Throughput at Major Ports – Commodity -Wise

(Million Tonne)

Commodity	9th PlanTarget (2001-02)	1996-97	1997-98	1998-99
POL	186.7	98.08	104.00	107.40
Iron ore	34.4	33.05	40.73	34.29
Coal	93.7	34.86	38.95	39.02
Fertiliser	14.2	7.18	8.91	9.00
Container	38.7	20.59	23.30	23.78
General Cargo	56.2	33.50	35.77	38.23
Total	**423.9**	**227.26**	**251.66**	**251.72**

Annexure-XIV

TRAFFIC HANDLED AT MAJOR PORTS – Port Wise

(In Million Tonnes)

Ports	1996-97 Tar.	1996-97 Act.	1997-98 Target	1997-98 Actual	1998-99 Target	1998-99 Actual
1	2	3	4	5	6.	7.
Calcutta	6.30	6.02	6.30	7.95	9.50	9.16
Haldia	15.50	17.10	18.00	20.21	20.50	20.22
Paradip	11.10	11.58	11.80	13.30	13.35	13.11
Vizag	32.00	34.50	35.60	36.02	36.0	35.65
Chennai	30.50	31.85	32.50	35.53	36.50	35.20
Tuticorin	9.00	9.18	9.40	9.97	10.20	10.15
Cochin	10.90	11.74	11.80	12.32	12.25	12.67
New Mangalore	10.40	12.45	12.80	15.28	15.50	14.21
Mormu - Gao	18.80	17.31	18.00	21.18	20.20	18.02
Mumbai	33.00	33.73	34.60	32.10	34.00	30.97
JNPT	6.80	8.07	9.60	8.90	10.00	11.72
Kandla	29.70	33.73	36.60	38.90	40.00	40.64
Total	**215.00**	**227.26**	**237.00**	**251.66**	**258.00**	**251.70**

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Annexure - XV

TRAFFIC HANDLING CAPACITY AT MAJOR PORTS

(In Million Tonnes)

Ports	31-3-97	31-3-98	31-3-99	31.3.2000 (Anti.)
Calcutta	8.30	8.30	8.30	12.45
Haldia	21.40	21.40	21.40	28.70
Paradip	11.25	11.25	11.25	12.25
Vizag	30.30	30.30	30.30	30.80
Chennai	26.62	26.62	26.62	27.62
Tuticorin	7.50	7.95	7.95	12.95
Cochin	13.45	13.45	13.45	13.45
N.Mangalore	16.75	16.75	16.75	16.75
Mormugao	18.68	18.68	18.68	19.48
Mumbai	30.50	30.50	30.50	30.50
Kandla	20.40	24.40	37.00	39.00
J.L.Nehru	12.40	12.40	16.00	16.00
All Ports	**219.55**	**222.00**	**239.95**	**259.00**

Annexure-XVI

Productivity Indicators at Major Ports- Port Wise

Ports	Av. Pre Berthing Waiting Time(Days) (Ports' Account) 1996-97	1999-2000	% age Variation *	Av. Turn Round Time (days) 1996-97	1999-2000	% age Variation*	Output Per Ship Berth Day (Tonne) 1996-97	1999-2000	% age Variation *
1	2	3	4	5	6	7	8	9	10
Calcutta	0.2	0.2	0.0	7.7	6.6	16.7	1188	2157	81.6
Haldia	0.7	0.6	16.7	6	5.2	15.4	5855	5599	-4.4
Paradip	0.7	0.3	133.3	4.9	3.90	25.6	6406	7106	10.9
Vizag	1.5	0.7	114.3	5.6	4.80	16.7	6696	7579	13.2
Chennai	1.1	2.1	-47.6	7.8	6.80	14.7	5131	6086	18.6
Tuticorin	0.3	2.5	-88.0	5.1	6.40	-20.3	3026	2893	-4.4
Cochin	0.4	0.2	100.0	3.9	3.20	21.9	5438	5824	7.1
New Mangalore	1.1	0.2	450.0	4.4	3.80	15.8	7172	9082	26.6
Mormugao	0.3	0.4	-25.0	6.3	4.30	46.5	8540	11162	30.7
Mumbai	2.4	0.3	700.0	10.7	4.00	167.5	2605	3907	50.0
JNPT	2.0	0.6	233.3	6.3	1.7	270.6	2987	5905	97.7
Kandla	5.3	1.1	381.8	10.6	4.00	165.0	7066	8646	22.4
All Ports	**1.7**	**0.9**	**88.9**	**7.5**	**4.70**	**59.6**	**4497**	**53.38**	**18.70**

% age variation in 1999-2000 over 1996-97.

Annexure-XVII

Ninth Five Year Plan Outlay and three year likely Expenditure-Ports

(Rs. Crores)

Ports	9th Plan Outlay (1997-02) GBS	IEBR	Total	Likely Expenditure (1997-2000) GBS	IEBR	Total	Expenditure as a % outlay GBS	IEBR	Total
Calcutta	295	50	345	0	25	25	0	50	7
Haldia	0	200	200	0	94	94	0	47	47
Total	295	250	545	0	119	119	0	48	22
Mumbai	148	1060	1208	17	323	340	11	31	28
JNPT	20	680	700	0	177	177	0	26	25
Chennai	415	1085	1500	385	369	754	93	34	50
Cochin	215	165	380	0	49	49	0	30	13
Vizag	6	894	900	7	155	162	113	18	18
Kandla	30	530	560	7	167	175	23	32	31
Mormugao	0	360	360	0	68	68	0	19	19
Paradip	356	844	1200	372	290	661	104	34	55
New Mangalore	0	640	640	0	72	72	0	11	11
Tuticorin	160	390	550	0	234	234	0	60	43
Major Ports(A)	**1645**	**6898**	**8543**	**787 (680)**	**2024 (1783)**	**2811 (2463)**	**48 (41.4)**	**29 (26)**	**33 (28.9)**
DCI	65	630	695	35	290	325	55	46	47
ALHW	125	0	125	73	0	73	58	0	58
MPSO	15	0	15	3	0	3	19	0	19
Minor Ports	30	0	30	3	0	3	9	0	9
Misc. Items	20	0	20	11	0	11	55	0	55
Others(B)	**255**	**630**	**885**	**125**	**290**	**414**	**49**	**46**	**47**
Total (A+B)	**1900**	**7528**	**9428**	**912 (790)**	**2314 (2037)**	**3226 (2827)**	**48 (41.6)**	**31 (27.1)**	**34 (30)**
Survey Vessels	262	0	262	190	0	190	72	0	72
Sethusamudram				5	0	5			
Grand Total	**2162**	**7528**	**9690**	**1106 (962)**	**2314 (2037)**	**3420 (2999)**	**51 (44.5)**	**31 (27.1)**	**35 (30.9)**

- Figures in the paranthesis are at constant prices.

Annexure - XVIII

Outlay and Expenditure-Inland Water Transport (Central Sector)

(Rs. Crore)

	Ninth Plan (1997-2002) (1996-97 Prices)	1997-98		1998-99		1990-2000	
	Outlay	Outlay	Actual	Outlay	Actual	Outlay	RE
IWAI	308	40.00	22 (22.90)	45.00	28.76 (32.45)	20.00	23.56 (28.54)
CIWTC	100	10.00	10 (10.00)	15.04	6 (7.30)	6.04	5 (6.04)
Total	**408**	**50.00**	**31 (32.90)**	**60.04**	**34.76 (39.75)**	**26.04**	**28.56 (34.58)**

Figures in the parenthesis are at current Prices.

Annexure – XIX

Progress of Tonnage Acquisition Programme

Item	9th Plan	1996 (Dec.)	1997 (Dec.)	1998 (Dec.)	1999 (June)
Total Tonnage (Million GRT)	9.00	7.052	6.878	6.785	6.851
Of which SCI		3.123	3.013	3.074	3.125
No.of ships					
Total		484	476	484	488
Of which SCI		121	117	120	120

Annexure - XX

Outlay and Expenditure-Shipping Corporation of India (Central Sector)

(Rs. crore)

	Ninth Plan (1997-2002) (1996-97 Prices)	1997-98		1998-99		1990-2000	
	Outlay	Outlay	Actual	Outlay	Actual	Outlay	RE
SCI	5752	885.2	300 (315.0)	1162.6	776 (872.0)	1478.90	510 (610)
Of which GBS	85	20	20	20	20	0.00	0.00

Figures in the parenthesis are at current Prices.

Annexure-XXI

OUTLAY AND EXPENDITURE CENTRE : CIVIL AVIATION

(Rs. in crore)

Sl	Name of the Organisation	9th Plan Outlay	1997-98 Apprvd. Outlay	1997-98 Actual Expnd.	1998-99 Approved Outlay	1998-99 Actual Expd.	1999-2000 Approved Outlay
1	2.	3.	4.	5.	6.	7.	8.
1.	Air India Ltd.	3,664.00	1233.45	517.75	602.53 (5.00)	550.01	433.46 (0.01)
2.	Indian Airlines Ltd.	3,640.75 (125.00)	470.00	441.90	630.00 (125.00)	522.03	540.01 (0.01)
3.	Pawan Hans Ltd.	209.20	87.25	26.85	90.00	5.55	101.55
4.	Airports Authority of India	3,421.87 (283.37)	609.15 (35.74)	338.58 (10.00)	800.43 (68.17)	319.87 (25.00)	697.93 (41.00)
a)	International Airports Division	1522.52	274.57	118.05	257.58	109.50	300.32
b)	National Airports Division	1899.35 (283.37)	334.58 (35.74)	220.53 (10.00)	542.85 (68.17)	210.37 (25.00)	397.61 (41.00)
5.	D.G.C.A.	27.00 (27.00)	3.77 (3.77)	1.07 (1.07)	4.45 (4.45)	3.38 (3.38)	4.40 (4.40)
6.	B.C.A.S.	25.00 (25.00)	2.50 (2.50)	0.01 (0.01)	3.00 (3.00)	2.35 (2.35)	3.58 (3.58)
7.	I.G.R.U.A.	35.00 (35.00)	14.73 (14.73)	10.00 (10.00)	12.94 (12.94)	11.00 (11.00)	6.00 (6.00)
8.	Hotel Corporation of India	89.55	50.00	8.52	42.40	10.19	20.00
	TOTAL	**11112.37 (495.37)**	**2470.85 (56.74)**	**1344.68 (21.08)**	**2185.75 (218.56)**	**1424.38 (41.73)**	**1806.93 (55.00)**

Note: Figures in bracket indicate budgetary support.

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Annexure - XXII

AIR INDIA - CAPACITY AND TRAFFIC

Year	Capacity Available (ATKMs in Million)	Capacity Utilised (RTKMs in Million)	Load Factor (%)
1996-97 (Actual)	2452.1	1484.6	60.5
1997-98 (Actual)	2293.7	1453.8	63.4
1998-99 (Actual)	2394.3	1473.6	61.5
1999-2000 (RE)	2233.3	1411.3	63.2

Annexure - XXIII

FINANCIAL PERFORMANCE

(Rs. in crore)

	1996-97 (Actual)	1997-98 (Actual)	1998-99 (Actual)	1999-2000 (Revised)
Operating Revenue	3533.19	3837.21	4135.26	4216.38
Operating Expenses	3945.82	4029.84	4139.84	4234.18
Operating Profit/ (loss)	(412.63)	(192.63)	(4.58)	(17.80)
Total Revenue	3817.78	4087.59	4236.72	4380.21
Total Expenses	4114.72	4268.60	4411.20	4469.96
Net Profit/(loss)	**(296.94)**	**(181.01)**	**(174.48)**	**(89.75)**

Annexure-XXIV

INDIAN AIRLINES - CAPACITY AND TRAFFIC

Year	Capacity Available (ATKMs in Million)	Capacity Utilised (RTKMs in Million)	Load Factor (%)
1996-97 (Actual)	1075.2	698.12	64.9
1997-98 (Actual)	1094.13	700.90	64.1
1998-99 (Actual)	1122.92	709.08	63.1
1999-2000 (RE)	1121.28	717.81	64.0

Annexure - XXV

FINANCIAL PERFORMANCE

(Rs. in crore)

	1996-97 (Actual)	1997-98 (Actual)	1998-99 (Actual)	1999-2000 (RE)
Operating Revenue	2848.54	3243.45	3423.57	3537.00
Operating Expenses	2713.23	2984.56	3129.33	3317.25
Operating Profit/ (loss)	135.31	258.89	294.24	219.75.
Total Revenue	2914.38	3268.25	3445.61	3543.50
Total Expenses	2928.97	3220.98	3431.44	3504.25
Net Profit/(Loss) before tax	**(14.59)**	**47.27**	**14.17**	**39.25**
Provision for Tax	—	—	1.05	4.00
Net Profit/(Loss) after tax	**(14.59)**	**47.27**	**13.12**	**35.25**

Annexure - XXVI

AIRPORTS AUTHORITY OF INDIA-CAPACITY, DEMAND AND AUGMENTATION FOR PASSENGER TERMINALS AT INTERNATIONAL AIRPORTS. NINTH PLAN MID TERM REVIEW

Airports	At Commencement of Plan period (Annual in 'Millions) Capacity	Demand	Growth Rate	At Completion of Plan period (Annual in Millions) Capacity	Demand	Capacity Achieved	Remarks
1	2	3	4	5	6	7	8
MUMBAI							
International	5,00	4,76	5.5%	7,50	6,22	7,50	Completion August, 1999
Domestic	6,45	6,30	10.5%	6,45	10,39	6,45	Project under sanction. Revised completion December, 2004.
TRIVANDRUM							
International	0,36	0,85	7.5%	0,42	1,22	0,42	Extension of existing Terminal completed. New Complex to be constructed after techno-economic viability studies and land acquisition.
Domestic	0,80	0,26	10.5%	0,80	0,42	0,80	
CALCUTTA							
International	0,52	0,61	7%	1,65	0,86	0,52	Modifications Ph-I to be completed in March 2001. Schemes for modifications to Ph-II under finalisation and work to be taken up after completion of Ph-I. Likely completion date is March, 2003.
Domestic	3,70	1,96	10.5%	3,70	3,23	3,70	New Domestic Terminal already commissioned in 1995.
CHENNAI							
International	0,46	1,54	7.5%	1,80	2,20	0,46	Commencement delayed due to non-receipt of environmental clearance. Revised completion, December, 2002.
Domestic	2,67	1,83	10.5%	2,67	3,01	2,67	Ph-II Domestic terminal proposed in Xth Plan.
DELHI							
International	3,40	3,70	7%	3,40	5,18	3,40	Project under sanction. Revised completion, 2005.
Domestic	7,20	4,30	10.5%	7,20	7,04	7,20	New Domestic terminal planned in X Plan.

Annexure- XXVII

AIRPORTS AUTHORITY OF INDIA-CAPACITY, DEMAND AND AUGMENTATION FOR INTERNATIONAL CARGO TERMINALS AT MAJOR AIRPORTS. NINTH PLAN - MID TERM REVIEW

Airports	At Commencement of Plan period (Annual in '000 Tonnes)		Growth Rate	At Completion of Plan period (Annual in '000 Tonnes)		Remarks
	Capacity	Demand		Capacity	Demand	
1	2	3	4	5	6	7
MUMBAI	186,86	200,20	12%	219,80	352,82	By Implementing 'Instant Cargo Scheme', dwell time being reduced from 12 days to 48 hours for import and 2 days to 24 hrs. for export cargo which shall provide for enhanced capacity. which shall provide for enhanced capacity.
CALCUTTA	28,00	19,85	12%	28,00	34,98	Construction of Integrated Cargo Terminal Ph-I to be completed in 2003. Capacity on Completion – 33000 tonnes. Demand on completion-38660 tonnes. Phase-II will be taken subsequently during 10th Plan period.
CHENNAI	59,53	57,40	12%	93,44	101,16	Construction of Integrated Cargo Terminal Ph-I is delayed due to non-removal of yellow fever hospital and HPCL Installations from the site of work. Revised completion 2001.
DELHI	50,00	154,85	12%	219,50	272,90	Export Cargo Terminal Ph-II to be completed in June, 2000. Import Cargo Terminal Ph-III to be completed in September 2000. By implementing 'Instant Cargo Scheme', dwell time being reduced from 12 days to 48 hrs. for import and 2 days to 24 hrs. for export which shall provide for enhanced capacity.

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Annexure - XXVIII

AIRPORTS AUTHORITY OF INDIA
PLAN FOR MISCELLANEOUS WORKS AT INTERNATIONAL AIRPORTS
NINTH PLAN MID TERM REVIEW

AIRPORTS	DESCRIPTION	ACTION PLAN	REMARKS
MUMBAI	Recarpetting of Secondary Runway	Bituminous overlay being provided for restoration of the pavement.	Work completed in April, 1999.
	Construction of Parallel Taxi Track to main runway	Under construction to increase the runway capacity	Completion 2000.
	Construction of New Taxi Links	Under construction for efficient movement of aircraft.	Two new taxi links connecting domestic apron completed.
	Construction of apron	For parking additional 3 nos. B-737 aircraft and 3 nos. A-320 aircraft	Work awarded.
	Terminal Building	Modification and face lifting works in hand	After commissioning of Ph-III (2-C) International Terminal in August, 1999 modification of PH-2B shall be undertaken. Facelifting works under progress.
	Cargo Complex	New shed for storing heavy cargo being provided.	New sheds for storing heavy cargo under construction.
	Fire Detection and fighting measures.	Facility being upgraded.	Facility being upgraded in phases.
	Operational and facilitation equipments	CCTV system, Passenger Frisking/Baggage check equipment and other operational equipments being upgraded/ augmented.	CCTV systems, Passenger Frisking/ Baggage check equipment and other operational equipments being upgraded/ augmented.
THIRUVANAN THAPURAM	Extension of main runway	The main runway has been extended by 350 m to permit B-747 aircraft operation	Work completed.
	Extension of apron.	The existing apron being modified to accommodate 7 parking bays including one for B-747 against 4 parking bays at present.	Work completed
	Terminal Building	International Terminal being modified/extended to increase the capacity from 0.36 million pax to 0.42 million pax and augment passenger handling areas. The building is being provided with Central Air-conditioning. Domestic Building modified for increased passenger handling.	Work completed in March, 1999
CALCUTTA	Resurfacing of main runway	Bituminous overlay being provided for restoration of the pavement.	Work to commence in 2001-2002 and completion in 2003.
	Reconstruction of porting of parallel taxi track.	Disused portion of parallel taxi track being reconstructed to increase the runway capacity and efficient movement of aircraft.	Work in progress.

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	Construction of Apron	4 new bays are being added. 6 old bays are being reconstructed/strengthened	Work in progress.
	Terminal Building	Cityside canopies are proposed for both the terminals for protection of passengers/visitors from bad weather	Canopy for domestic terminal and canopy of intecrnational terminal under process.
CHENNAI	Strengthening of Secondary runway.	Existing secondary runway being strengthened to handle B-737/A-320 type aircraft. The runway is also being improved to meet international standards.	Work completed in October, 1999.
	Construction of Apron.	6 new aircraft parking bays are being added.	Work completed.
	Terminal Building	The Central Atrium of International Building is being covered to augment security hold space. Airside corridor with two additional aerobridges are being provided.	Atrium Work completed. Work of airside corridor in progress.
DELHI	Strengthening of secondary runway	Bituminous overlay being provided for restoration.	Work in progress. Likely to be completed by October, 2000
	Strengthening of main runway	Bituminous overlay being provided for restoration and strengthening to cater to heavier aircraft like MD-11.	Work in progress. Likely to be completed by October, 2000
	Construction of Taxi Track.	A new taxi track connecting the runways is being built for increasing runway capacities.	Work in progress. Likely to be completed by October, 2000
	Construction of Apron.	7 new international bays have been added.	Work completed.
	Terminal Building	Modification and facelift of both terminals are in hand.	Work in progress.

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Annexure - XXIX

AIRPORTS AUTHORITY OF INDIA

FINANCIAL PERFORMANCE

(Rs. in crore)

Financial	1996-97	1997-98	1998-99	1999-2000 (RE)
Revenue	1142.12	1279.64	1591.27	1674.56
Expenditure	896.42	963.45	1255.48	1335.70
Net Profit before Tax	245.70	316.19	335.79	338.86
Provision for Tax	113.61	120.05	127.37	130.46
Net Profit after Tax	132.09	196.14	208.42	208.40

CHAPTER 26

COMMUNICATIONS

Telecom Sector

Telecommunications is a critical part of infrastructure and one that is becoming increasingly important, given the trend of globalisation and the shift to a knowledge-based economy. Until 1994 telecommunication services were a Government monopoly. Although telecommunications expanded fairly rapidly under this arrangement, it was recognised that capacities must expand much more rapidly and competition also be introduced to improve the quality of service and encourage induction of new technology. Telecommunications has become especially important in recent years because of the enormous growth of information technology (IT) and its potential impact on rest of the economy. India is perceived to have a special comparative advantage in information technology or in IT-enabled services, both of which depend critically on high quality telecommunications infrastructure. Telecommunications policy must, therefore, be formulated keeping in view the need to provide the IT and related sectors with world class telecommunications at reasonable rates. Formulating a policy for the sector faces an additional challenge because technological change in telecommunication has been especially fast and is expected to lead to major changes in the structure of the telecommunication industry worldwide. Convergence of data, voice and image transmission and use of wide bandwidth and high speed Internet connectivity have added new dimensions which need to be taken into account in making mid-course corrections in policy.

I. Policy Developments In Telecommunications

2. The Government had announced a National Telecom Policy (NTP) in 1994 allowing private sector participation in basic services. The policy sought to achieve the basic objectives of telephone on demand, provision of world class services at affordable prices, ensuring India's emergence as major manufacturing base / export base of telecom equipment and universal availability of telecom services to all villages. Within this framework, the Ninth Plan envisaged a much greater role for the private sector.

3. As it happened, private sector participation failed to take off as desired due to several constraints, the more important being artificially high licence fee liabilities for the operators resulting from competitive bidding process and the actual demand being much lower than the projections assumed by the private operators. While there was a rapid roll-out of value added services like cellular phones, radio paging etc., their growth and quality of services suffered heavily. For basic services just six licences were issued after three rounds of bidding and till recently only three operators had commenced operations in a limited way. As a result most of targets of NTP 1994 could not be achieved. In addition, there have been far reaching developments on a global scale in the recent past in telecom, IT, consumer electronics and media industries. . Convergence of both markets and technologies is a reality that is forcing realignment of the industry. This necessitated a re-look into the existing policy frame work. A summary of the reforms undertaken thus far is in the following Box. However, there are a few issues left which need to be addressed further.

Reforms in Telecom Sector

- Telecom equipment manufacturing was completely deregulated in 1991.
- Value added services including cellular phone services thrown open to private sector in 1992.
- National Telecom Policy (NTP) was announced in 1994 providing the basic framework for future development of the sector. An important measure was allowing private sector participation in basic services.
- An independent regulatory authority called Telecom Regulatory Authority of India (TRAI) was set up in 1997.
- A new policy for Internet Service Providers (ISPs) was announced in 1998 opening the area to private sector providers. The policy was promotional in nature. No licence fee is to be paid by the ISPs for the first five years and then it is Re 1 per annum. .
- A new policy called New Telecom Policy (NTP), 1999 was announced replacing the 1994 policy.
- Migration of the existing licencees from the regime of fixed licence fee to a new regime of revenue share was permitted in October, 1999.
- The regulatory mechanism has been further strengthened through the TRAI (Amendment) Act, 2000 in which the role, functions and powers of TRAI vis-a-vis Government have been clearly defined. The Act provides for establishment of a separate dispute settlement mechanism called Telecom Dispute Settlement and Appellate Tribunal.
- ISPs permitted to set up sub-marine cable landing stations for international gateways for Internet.
- National Long Distance Service was opened for competition in Aug. 2000.
- Corporatization of DOT into public company called Bharat Sanchar Nigam Limited from 1st October 2000 approved.
- International Long Distance Services to be opened for competition from 1st April 2002 ending monopoly of Videsh Sanchar Nigam Limited.

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New Telecom Policy, 1999

4. The New Telecom Policy (NTP) announced in 1999 has modified the 1994 policy to take into account far reaching technological developments taking place in the telecom sector globally and to implement the Government's resolve to make India a global IT superpower. NTP, 1999 also sought to solve the implementation problem arising out of the outgoing policy.. The objectives of NTP 1999 are to :

- Make available affordable and effective communications for the citizens.
- Strive to provide a balance between the provision of universal service to all uncovered areas, including rural areas and the provision of high-level services capable of meeting needs of the country's economy.
- Encourage development of telecommunication facilities in remote, hilly and tribal areas of the country.
- Create a modern and efficient telecommunications infrastructure taking into account the convergence of IT, media, telecom and consumer electronics and thus propel India into becoming an IT superpower.
- Convert PCOs (public call offices), wherever justified, into Public Teleinfo Centres having multimedia capability like Integrated Service Data Network (ISDN) services, remote database access, government and community information systems etc.
- Transform — in a time bound manner — the telecommunications sector into a greater competitive environment in both urban and rural areas providing equal opportunities and level playing field for all players.
- Strengthen research and development efforts in the country and provide an impetus to build world-class manufacturing capabilities.
- Achieve efficiency and transparency in spectrum management.
- Protect defence and security interests of the country.
- Enable Indian telecom companies to become truly global players.

Some of the major features of the new policy are as follows:

- **Fixed Service Providers (FSPs)**: Multiple service operators have been permitted in this segment against only two operators - one private and one Government - permitted by the earlier policy. The FSPs will be eligible to obtain licences for any number of service areas against the cap of three circles imposed while implementing the 1994 policy. Licences under the new policy would be for 20 years extendable by another 10 years. As against this, licences were issued for a 15-year period implementing the earlier policy of 1994. Fixed licence fee based on competitive bidding under the earlier policy has been replaced by one-time entry fee and revenue share. TRAI is to recommend the one-time entry fee, revenue share and basis of selection of operators under the new policy. The new policy also provides freedom to the operators to establish 'last mile' linkages and carry long distance traffic within the service area.
- **Cellular Mobile Service Providers (CMSPs)**: Under the new policy, CMSP would be eligible to obtain licence for any number of areas. This is against a cap of three circles under categories A and B put together imposed in the licences issued under the 1994 policy. As per the new policy, DOT (Department of Telecommunications) / MTNL (Mahanagar Telephone Nigam Ltd) would be licensed as a third operator against the earlier policy of allowing two private operators in each circle. The new policy allows more operators in a service area based on the recommendations of TRAI who will review this as required and no later than every two years.Licences under the new policy would be for 20 years extendable by another 10 years. As against this, licences were issued for a 10-year period implementing the earlier policy of 1994. Fixed licence fee based on competitive bidding under the earlier policy has been replaced by one-time entry fee and revenue share. TRAI is to recommend the one-time entry fee, revenue share and basis of selection of new operators under NTP, 1999. With a view to ensuring a level playing field, licence fee would be paid by DOT also; however, the Government would reimburse it DOT as it is the National Service Provider having immense rural and social obligations.
- **Internet Telephony** : Not permitted at this stage. To be reviewed at an appropriate time.
- **National Long Distance Connectivity:** It was to be opened for competition from 1st Jan, 2000. TRAI to work out terms and conditions including number of operators, licence conditions and other related issues.
- **International Long Distance Connectivity:** Opening of the service to competition to be reviewed by 2004.
- **Restructuring of DOT :** DOT to be corporatized by 2001 keeping in view the interests of all stake-holders.
- **Universal Service Obligation (USO) :** The Government seeks to achieve the following universal service objectives :

(i) Providing voice and low speed data services to the balance 2.9 lakh villages by 2002.

(ii) Achieve Internet access to all District HQs by 2000.

(iii) Achieve telephone on demand by 2002.

The resources for meeting the USO would be raised through a 'universal access levy' which would be a percentage of the revenue earned by all the operators under various licences. The percentage of revenue share towards universal access levy would be decided by the Government in consultation with TRAI. Implementation of the USO obligation for rural / remote areas would be undertaken by all fixed service providers who will be reimbursed from the funds from the universal access levy.

- **Change in Legislation:** Indian Telegraph Act 1885 needs to be replaced with a more forward - looking Act

II. Performance In Ninth Plan (1997-2002)

5. The Ninth Plan has envisaged rapid expansion of network, modernising it with the state of art technology and improving efficiency. The specific objectives envisaged for the Ninth Plan are :

(i) Universal coverage or telephone on demand;

(ii) Universal and easy accessibility;

(iii) World standard services to the consumers at affordable prices;

(iv) Demand-based provision of existing value-added services and introduction of new services;

(v) Exports of telecom equipment and services as a major thrust area.

To achieve the above objectives, the following major targets were fixed for the telecom services :

i) Provision of 237 lakh additional Direct Exchange Lines (DEL) including 52 lakh by the private sector;

ii) Provision of additional 18 lakh lines of trunk capacity (TAX);

iii) Laying of 1.4 lakh rkms (route kilometers) of optical fibre (OFC);

iv) Provision of 2.39 lakh Village Public Telephones (VPTs);

v) One Public Call Office (PCO) for every 500 population in urban areas; and

vi) STD facility to all the exchanges by the year 2000.

6. An outlay of Rs.46,442.04 crore was approved for the telecom sector to be financed basically by internal and extra budgetary resources. Budget support of Rs.44.04 crore provided to the sector was meant for financing the Plan expenditure on monitoring and regulatory mechanisms i.e. Wireless and Planning Coordination (WPC) Wing of the Ministry of Communications. The financing pattern and the organization-wise breakup was not worked out due to difference in perception on the size of the approved Plan.

Review of Physical Performance

7. The performance of Government sector i.e. Department of Telecom Services (DTS) and Mahanagar Telephone Nigam Ltd. (MTNL) during the first three years has been generally satisfactory in relation to targets except in the area of rural connectivity. The following tables give the details in respect of major targets. The shortfall in VPT targets is reportedly on account of non-availability of appropriate technology. The performance of the old technology based on Multi Access Rural Radio (MARR) was unsatisfactory and the Department has stopped using equipment based on that technology since 1997. The new equipment based on C-DOT and WILL technology are being field-tried. However, the lower-than targeted expansion of the basic MTNL network is a matter of concern and probably reflects inadequacies in marketing.

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Physical Performance-Govt. Sector

Scheme*	Ninth Plan Target	1997-2000		% Achv. w.r.t.	
		Target	Achvmt.	1997-2000	9th Plan
DELs (iac)	**165.00**	**110.50**	**119.69**	**108.32**	**64.69**
DTS	16000	96.70	109.50	113.24	68.43
MTNL	25.00	13.80	10.19	73.84	40.76
TAX ('000)	**18.00**	**12.28**	**10.00**	**81.14**	**55.55**
DTS	15.24	10.62	8.86	83.43	58.14
MTNL	2.76	1.66	1.14	68.67	41.30
OFC ('000)	140.00	97.00	118.86	122.53	84.90
VPT ('000)	239.16	208.50	113.89	54.62	47.62

* : Units of DELs and TAX are in lines, OFC in route kms and VPT in numbers

8. Ninth Plan envisaged that a project for providing various value added and other telecom services would be taken up by the Department on a pilot basis in rural areas in an integrated manner. Such a project was to be taken up in two districts each – one developed and the other backward – of Punjab, Orissa, Kerala and Maharashtra. The Department is yet to initiate action in this regard. The project is expected to be very useful to gain experience for developing the teleinfo centres on a larger scale as envisaged in NTP, 1999.

9. Though private sector participation was permitted in basic services following the announcement of NTP 1994, the move failed to take off as desired. After three rounds of competitive bidding only six licenses were issued. As per their roll-out Plan, the six operators were expected to provide 20.18 lakh DELs over a three-year period. The following table gives the details in this regard. As on date only three operators i.e. M/s Bharati Telenet in MP, M/s Hughes Ispat in Maharastra and M/s Tata Teleservices in Andhra Pradesh have launched the services. Against the Ninth Plan target of 52 lakh DELs, the actual achievement was estimated to be only 1.42 lakh DELs till March 2000. This is against the roll-out plan of 20.18 lakh DELs agreed to by the six operators for a three year period. As per the licence agreements, 10% of the connections provided were to be in rural areas. The performance in this regard has been very poor. Keeping in view the present trend, a major shortfall is likely in the achievement of the Ninth Plan target of providing new connections and VPTs by the private sector.

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10. To offset the shortfall in the performance of the private sector in the expansion of basic networks including VPTs and to further strengthen the transmission capacity, the Department of Telecom Services has proposed an upward revision in the physical targets approved for the Ninth Plan. The target for DELs is proposed to be increased from 185.00 lakh to 222.70 lakh for the Government sector. Taking into account the proposed reduction in the target for MTNL – from 25 lakh to 22 lakh DELs — the target for DTS is proposed to be increased from 160.00 lakh to 200.70 lakh DELs. The target for VPTs is proposed to be increased from 2.39 lakh to 2.79 lakh new connections. The details may be seen in the **Annexure-I.**

11. Keeping in view the Department.'s past performance and its capacity to mobilise additional resources and logistics support required to achieve higher targets, the proposed increase in target seems feasible. But the Deparment needs to put in special efforts to achieve the enhanced targets for VPTs as its performance in this area in first three years has not been encouraging.

Review of Financial Performance

12. For various programmes of the telecom sector, an outlay of Rs.46,442.04 crore including a budget support of Rs.44.04 crore was approved for the Ninth Plan. The Department had proposed a much higher Plan outlay (Rs.85,523 crore) and it did not agree with the outlay approved. Due to difference of perception on the size of the outlay, it was agreed that the approved outlay would be only indicative in nature and the outlay for the Annual Plans would be determined on the basis of realistic assessment of resources that could be mobilized. Keeping this in view, the organization-wise breakup and financing pattern was not finalized at the time of Ninth Plan. Such a break-up has now been provided by the Department along with its proposals for the Mid-Term review and may be seen in **Annexure-II & III.**

13. During the first three years, an outlay of Rs.39,884.13 crore including budget support of Rs.23.42 crore was approved for the telecom sector (at 1996-97 prices). The utilization is expected to be about 80% of the approved outlay. The organization-wise details and financing pattern may be seen in Annexure. The shortfall in utilization of outlay is basically on account of low utilization by MTNL and VSNL (Videsh Sanchar Nigam Ltd) . Some of the major projects could not be taken up as envisaged due to several reasons including delay in clearances etc. The utilization by DOT has been about 89%. The table on the next page gives the details of the financing pattern of the approved outlay and utilization of DOT and MTNL during the first three years.

Roll out Plan of Private Basic Service Operators

Name of the licensee	Name of Circle	Total DELs	Three Year Period
Tata Teleservices	A.P.	3,00,000	Sep.97 – Sep.2000
Reliance Telecom	Gujarat	2,88,000	Sep.97 – Sep.2000
Essar Commvision	Punjab	5,25,000	Sep.97 – Sep.2000
Bharti Telenet	M.P.	1,50,000	Sep.97 – Sep.2000
Hughes Ispat	Maharashtra	6,07,900	Sep.97 – Sep.2000
Shyam Telelink	Rajasthan	1,46,909	March 98 – March 2001

Financial Performance-Govt.Sector

(Rupees in crore – at 1996-97 prices)

	Ninth Plan Approvd. Outlay	1997-2000 Aprvd. outlay	1997-2000 Antc. Exp.	% Achiv. w.r.t 1997-2000	% Achiv. w.r.t 9th Plan
IR	**35031.00**	**29522.67**	**27150.73**	**91.96**	**77.50**
DoT	30965.00	25216.75	24375.47	96.66	78.72
MTNL	4066.00	4305.92	2775.26	43.62	68.25
Bonds	**8410.00**	**7499.46**	**2959.14**	**54.37**	**35.18**
DoT	7030.00	5442.57	2959.14	54.37	42.09
MTNL	1380.00	2056.89	0.00	0.00	0.00
Total	**43441.00**	**37022.13**	**30109.87**	**81.32**	**42.03**

The performance of DOT in respect of generation of internal resources has been very encouraging during the first two years and the target was exceeded by 6.8% and 9.73% during 1996-97 and 1997-98 respectively. However, in the third year i.e. 1999-2000, a shortfall of about 22% was likely to occur. The tariff revision effected in May, 1999 — by which the long distance rates were cut by about 21% — is stated to be the main reason for lower resource generation. It is planned to be compensated by an equal increase in market borrowings so that the physical targets fixed could be achieved.

14. An upward revision in the Ninth Plan outlay (about 71%) has been proposed by the Department in its Mid-term proposals – from Rs 46,442.04 crore to Rs 79,414.61 crore (at constant prices). This includes a budget support of Rs 268.73 crore for Wireless Planning and Coordination (WPC)/Wireless Monitoring Organisation (WMO)/ TRAI and Rs. 24.50 crore for HTL Ltd. This is against the provision of Rs 44..04 crore approved for financing the Plan Outlay of Regulatory bodies in the telecom sector. The increased budget support is required to fund World Bank assisted project of modernisation of radio spectrum management etc. Bulk of the proposed increase in the outlay is accounted for by DTS and VSNL. Except for regulatory bodies and HTL Ltd., the increase in outlay is to be funded entirely through increased IEBR (Internal and Extra Budgetary Resources). Details of the organisation-wise outlay and the financing pattern proposed may be seen in **Annexure-II and Annexure III.**

15. While the Department may be in a position to mobilise increased market borrowing as proposed due to its good market rating and credit worthiness, the enhanced target for IR (internal resources) seems ambitious. In order to achieve the proposed target, the Department would need to mobilise IR of the order of Rs.13,757 crore in each of the remaining two years against the present IR mobilisation effort of Rs. 7,605.25 crore (Revised Estimates for 1999-2000) and Rs 8,469.48 crore in 1998-99. The Department's ability to mobilise such resources has to be seen in the context of the need to reduce the present high tariffs on long distance communication. It is well known that long distance and international telephone tariffs are very high in India reflecting a long standing practice of cross-subsidization. Reform in the telecom sector requires rebalancing of these tariffs to ensure that domestic users of telecom services are not overburdened. This is especially important in the context of the objective of making India an IT superpower. Increasingly DOT and MTNL will have to rely upon greater efficiency to realise resources rather than charging monopoly tariffs.

North Eastern Region

16. North Eastern Region is one of the special focus areas for development. The growth of the basic telecom network in the region has been much higher than the rest of the country in the last five years. During 1995-96 to 1998-99, the growth rate in provision of new connections was about 26% in the North East against the national average of about 22%. Some of the value added services like cellular phones and paging are available in Guwahati through private operators. Cellular service is also available at Shillong.

17. The tele-density in the region was 1.67 as compared to the national average of 2.85 (31.03.2000). But low tele-density is not unique about the North East; it is also quite low for other States like Bihar (0.65), Orissa (1.21), J&K (1.31) and M.P. (1.54). Tele-density is not only a function of growth of the network but equally dependent on the growth in demand which in turn depends upon the overall economic development.

18. The performance of the Government sector in relation to achievement of Plan targets fixed for the North East has been on the same pattern as for the rest of the country. While the provision of new connections exceeded the target, a major shortfall is likely in the provision of VPTs. The following table gives the details :

Targets and Achievements (1997-2000)

Item	Target	Achievement	% acheivement
Sw. Capacity	303000	314814	103.90
DELS	230500	244998	106.29
VPTs	17800	11288	63.41

Private Sector Participation

19. Value added services were opened for competition to private sector participation in 1992. With the announcement of National Telecom Policy, 1994, the basic telecom services were also thrown open for competition. However, the private sector participation failed to take off as desired both in basic as well as value added services except for cellular mobile services in metro areas. The main stated reasons for the poor performance in the private sector under the old policy were :

(i) Artificially high and non-sustainable incidence of licence fees based on competitive bidding.

(ii) Non-availability of adequate finance at affordable cost.

(iii) Less than expected demand leading to lower revenues.

(iv) Implementation problems like Right of the Way for laying telecom network

20. A Group on Telecom headed by the Finance Minister has been set up. The Group will look into various problems faced by the value added services and in implementing the Telecom Policy.

21. Following three rounds of competitive bidding, six licences were issued to private companies for providing basic telecom services. Out of these, only three companies have commenced the services. Against the roll-out Plan of providing 20.18 lakh connections in a three year period, only 1.42 lakh connections have been provided by the private sector (upto March, 2000). The status of growth of telecom sector in the private sector is given in the table below :

22. Following the principle of competitive bidding, 22 operators were selected for providing cellular services in four metros and 18 circles. Cellular services are available in all areas of the country except Jammu & Kashmir and Andaman& Nicobar Islands. The status of cellular services as on 31.03.2000 may be seen in the table below. The circle-wise details of the operators and the customer base (as on December, 1999) may be seen in the **Annexure-IV.**

Status of Cellular Services (As on 31.03.2000)

No. of operators	22
No. of Subscribers (All India)	**18.84 lakh**
Metros (Total)	**7.96 lakh**
Delhi	3.32 lakh
Mumbai	3.20 lakh
Chennai	0.54 lakh
Calcutta	0.90 lakh
Other Circles	**10.88 lakh**
Total Investment*	**11160 crore**

* : As on Feb., 1999

23. Except for metropolitan areas, the cellular operators are reported to be facing financial problems. Ambitious demand projections (subscriber base), low time utilization and high licence fees are stated to be the main reasons for the financial problems. With the migration to the new regime of revenue share as per NTP, 1999 (in which the operators are required to pay a fixed percentage of gross revenue earned as licence fee), the situation is expected to improve substantially. Till the TRAI recommendations on the revenue share and terms and licence conditions etc. are received and implemented, the Government is charging an interim revenue share at the rate of 15%.

24. Internet is one of the fastest growing value added services. As on 31st March, 2000, 270 licences have been issued out of which 62 ISPs have started providing services. VSNL, MTNL and Department of Telecom Services are the three major operators in the public sector. VSNL is providing Internet Services at six locations viz.

Status of Basic Services in Private Sector (As on 31.03.2000)

Name of Company	State	Date of launching Service	Telephones provided 1998-99	1999-00	Total
Bharati Telenet	Madhya Pradesh	4.6.98	13980	77987	91967
Hughes Ispat	Maharastra	30.10.98	5217	17196	22913
Tata Teleservices	Andhra Pradesh	31.3.99	–	26713	26713
Total			**19697**	**121896**	**141593**

Delhi, Mumbai, Chennai, Calcutta, Pune and Bangalore. DTS offers Internet Services at 89 locations. The private sector accounts for about 50% of the present customer base of 9.43 lakh. New operators are entering the field by the day. The private sector is expected to be a dominant player in the field in the future.

Customers Base- Internet (31.3.2000)

Organisation	No of Subscribers (in lakh)
DTS	0.96
MTNL	0.36
VSNL	3.43
Others	4.68
Total	**9.43**

25. Since the opening of the Indian economy till March 2000, FDI (Foreign Direct Investment) of Rs. 4,231.62 crore has actually flowed into the telecom sector. Cellular services were the single largest recipient accounting for about 49% of the FDI received. The bulk of FDI (Rs.3,785.69) was received during the three year period of 1996-1998 constituting about 89% of FDI received so far. The actual inflow of FDI during the Ninth Plan is given in the table below: The service-wise break up may be seen in the **Annexure- V.** The potential inflow of FDI in this area is much larger and can be realized once some of the subsisting problems with the Telecom Policy are resolved.

FDI-Ninth Plan

(Rs in crore)

Year	Amount
1997	1245.19
1998	1775.64
1999	212.67
2000 (upto March)	10.46

Telephone on Demand

26. The 90's — and especially the years since 1995 – have witnessed a phenomenal growth of telecom network. The growth has been further accelerated during the Ninth Plan. In first three years of the Plan, 119.69 lakh new connections were provided by the Government sector recording a growth rate of more than 20% per annum. But equally impressive has been the growth in demand as reflected through its surrogates of new registrations and the waiting list. Taking into account the latent demand, the actual demand may be much higher. The following table gives the details in this regard :

27. One of the major Plan objectives is to provide telephones on demand. In spite of provision of DELs at an increased rate during the first three years and a substantial upward revision in the target, the Ninth Plan objective of providing telephones on demand may not be achieved. The two main reasons responsible for the situation are a substantial shortfall in the performance of the private sector and a sudden spurt in demand for new telephone connections. Against the average number of registrations of about 30 lakh per year during the last three years, the new registrations (new application receipts) during 1999-2000 are expected to touch a new record level of about 60 lakh. The increased demand is fuelled by a substantial reduction in initial deposit rates and a cut in the telecom tariffs effected since May, 1999. The trend is expected to continue in last two years of the Plan.

28. International comparison indicating India's position vis-a-vis other countries in respect of major parameters of telecom services may be seen in **Annexure – VI.**

Universal Accessibility

Village Public Telephones (VPTs)

29. Provision of Village Public Telephone (VPTs) is

Growth of Network & Telephone Demand (1991-2000)

(in lakh)

Year	Net DELs Added	Total existing lines*	New applicatons	Waiting list
1990-91	4.86	50.75	7.34	19.61
1991-92	7.35	58.1	10.63	22.89
1992-93	9.87	67.97	15.44	28.46
1993-94	12.28	80.25	8.79	24.97
1994-95	17.70	97.97	14.28	21.53
1995-96	21.83	119.78	23.05	22.77
1996-97	25.65	145.43	31.82	28.94
1997-98	32.59	178.02	30.71	27.06
1998-99	37.92	215.94	30.69	19.83
1999-00#	33.81	249.75	58.45	44.47

* : As on 31st of March of the ending financial year.
\# : Figures are up to February, 2000

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a very important component of the policy of ensuring universal accessibility to basic telecom services. One of the major objectives and thrust areas of the Plan and NTP, 1999 is to provide connectivity to every village through VPTs by 2002. As on 31.3.2000, about 61.66% of the villages have been covered under the scheme **(Annexure-VII).** The table below explains the roll-out Plan of VPTs during the Plan. State-wise details of roll-out plan may be seen in **Annexure-VIII.**

Total Villages in the country	607491
Villages having VPTs – on 29.02.2000	374566
VPTS on MARR	211313
VPTS on Over Head wire	163253
Target for Govt. sector - 1999-2002	177038
Target for private sector - 1999-2002	55848

MARR = Multiple Access Rural Radio

30. As per existing licence conditions of the basic service operators, 10% of total connections are to be provided in the rural areas. Keeping in view the very low pace of expansion of the network by private operators, a major shortfall is expected in the contribution of private sector.

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31. Providing connectivity to the un-covered villages by 2002 is one of the three targets envisaged under the universal service obligation set in NTP, 1999. This is to be financed by funds raised through universal access levy which would be a fixed percentage of the revenue earned by all operators. However, the policy is silent about the mechanism of providing funds for the maintenance of VPTs as it is not a self-financing activity. The element of subsidy is quite high. The following table gives the economics in this regard :

Average cost of providing a VPT	Rs.80,000- – 1,00,000
Total recurring expenditure per VPT per annum	**Rs.32,000**
Annual recurring expenditure @ 24% per annum	Rs.24,000
Maintenance cost @ 8% per annum	Rs.8,000
Average revenue earned per annum	Rs.960
Subsidy per annum	Rs.31140
Total VPTs serviced by DTS (by 2002)	**550876**
Total Annual subsidy for DTS (by 2002)	**Rs.1715 crore**

Technology and low traffic are major reasons for subsidy. It has been observed that the traffic and revenue have shown a substantial increase as STD (Subscriber Trunk Dialling) facility is provided to the VPT. At present only about 1.40 per cent of the VPTs have STD facility. To make the operations viable STD facility should be provided on all VPTs and gradually these should be converted into multi-service centres where other services like postal, multi-media etc. are provided. These centres need not be run by the Government and could be operated on a franchise basis.

Public Call Offices (PCOs)

32. Public Call Office (PCO) is an important means of providing connectivity to the population not having telephone connections of their own. The Plan target of providing one PCO for every 500 urban population has already been achieved. The table below gives the progress in this regard:

Growth of PCOs- Ninth Plan

	31.3.1997	31.3.2000
Local PCOs	184291	287994
STD PCOs	157333	355390
NHPTs	0	5567
Total	345178	648951
Projected population (Million)	949.88	996.94
Urban population (Million)	261.55	283.71
Urban Population per PCO	755	437

To ensure quick and easy accessibility from public places and places of emergency, Ninth Plan had envisaged provision of adequate number of PCOs in hospitals, railway platforms, educational institutions etc. As per the information available, this programme has failed to take off. Besides providing public facilities, the programme is expected to generate gainful income and employment to many on a substantial scale. The Department needs to take necessary steps to implement the programme on an accelerated basis in remaining two years of the Plan.

Internet Policy & National Internet Backbone (NIB)

33. The Government has embarked on a very liberal policy to promote Internet in the country at a fast pace. As per the Internet Policy, no licence fee is payable by the ISP licensee for first five years and a nominal fee of rupee one per annum is payable thereafter. The Internet Policy provides for interconnection of networks and setting up of international gateways by the ISPs, independent of VSNL. As such bandwidth is not likely to be a constraint and ISPs are free to expand the capacity.

34. The Department of Telecom Services is strengthening the domestic infrastructure in the country for Internet connectivity by building National Internet Backbone (NIB). Under the project, Internet nodes would be set up / strengthened at various places in the country in a phased manner.

Quality of Services

35. Three major areas key to the quality of services are frequency of fault and their rectification, convenience of interaction with the service provider including payment and an efficient and customer- friendly dispute settlement mechanism. Targets were fixed for some of the technical parameters of quality for the Government sector in the Plan. Judging by the performance during first three years, the targets fixed for the Plan may not be achieved except for trunk efficiency. A very slow reduction in the fault rate is an area of concern underlining the need to give attention to outdoor plants. Switching room faults are stated to be negligible as all exchanges in the country have become electronic. The following table gives details in this regard.

36. The call completion rate indicates the ratio of calls successfully completed to total calls attempted in a live or real situation obtaining any day. Low completion rates both in local as well as STD calls does not mean in-efficiency of the system; the low success rate may be due to factors extraneous to the network like the contact number being busy, out of order etc. STD call completion rate even in the developed countries is 55-60%. Besides higher fault rate, the other important factor for lower completion rate in India is substantially higher holding time. The average holding time in India is three to three-and-a-half minutes as compared to half-a-minute in USA.

III. Major Policy Issues

Tariff Rebalancing and Loss of Revenue to DOT / MTNL

37. Telecom tariffs especially the basic services tariffs were highly imbalanced, guided as they were by the basic principle of revenue generation and cross-subsidization. The Telecom Regulatory Authority (TRAI) through its tariff order 1999 sought to restructure the tariffs in order to achieve, among other things:

(i) cost based prices through regulation and/or competition,

(ii) ensure transparency of subsidies and better targeting of social objectives and

(iii) to help operational and technical efficiency of the operator thus providing a basis for enhanced competition in the near future.

Tariffs were sought to be aligned to costs. The tariff rebalancing for basic services was envisaged to be implemented in stages in order to ultimately reach cost-based tariff. The first phase of TRAI's recommendations was meant to be implemented from 1st April, 1999 to 1st April, 2001. Of the revisions proposed, two-thirds were to be implemented in the first year and equal changes at the beginning of two subsequent years. For fixing the tariffs for basic services, the universal service obligations and accessibility were kept in view while fixing the rates for the interim period. The rentals were fixed lower than the costs in order to ensure higher accessibility. Call charges were fixed on cost- plus basis without margins. The long distance charges were fixed above costs in order to cross-subsidize rentals which would continue to be less than costs. TRAI in its order observed that even after the first phase of rebalancing the long distance rates would continue to be much above costs. For effective and meaningful competition in the long distance segment which will benefit the consumers, further rebalancing will be necessary. Rentals would also have to be increased to make them cost-based.

38. The tariff rebalancing assumed that the incumbent operator i.e. DTS and MTNL would have some loss of revenue. However, it was presumed that the revenues would be such that it would still leave considerable operating surplus for the operator to keep the business profitable. The Government issued a revised order on tariff revision effective 1st May, 1999 in which the rural tariff and call charges for the lowest-end category remained unchanged. As per estimates of DTS, the revenue loss of about Rs.2,000 crore is estimated for the year 1999- 2000. The cumulative loss during the Ninth Plan is estimated to be about Rs.6,700 crore. However, this loss must be balanced against the gain to consumers and to the economy from the provision of telecom services at reasonable charges. Some of the loss can also be made up through increased efficiency.

Rural Connectivity / Village Public Telephones (VPTs)

39. The pace of implementation of the programme has been quite slow. Major areas of concern are :

Quality Improvement-Govt. Sector

Parameter	Target 2001-02	Achievement 1996-97	1997-98	1998-99	1999-00
Fault/100 stns/month	9.50	17.20	17.40	16.90	15.90
Trunk Efficiency %	85.00	80.60	81.50	82.70	84.00
Local Call completion rate (Live)	65.00	55.70	57.40	NA	NA
STD Call completion rate % (Live)	50.00	39.20	40.50	NA	NA

(i) High cost of providing VPTs.
(ii) Low revenue returns and high subsidy.
(iii) Maintenance.
(iv) Use of newer and cost effective technologies.

Opening of National Long Distance Operations

40. In line with the New Telecom Policy (NTP), 1999 the National Long Distance Operations (NLDO) have been opened for competition from Aug. 2000. Free and full competition has been ensured removing all undue restrictions on entry. As per the guidelines issued , the NLDO licensee can carry intra circle traffic only with mutual agreement with the fixed service provider in accordance with their mutually agreed terms. With existence of multiple fixed service operators (FSP) becoming a reality in a circle, securing mutual agreement from each of the FSP may become a major constraint for the new NLDO licensee/ licensees. It needs to be ensured that this provision is not used by the fixed service operators to restrict competition.

Opening of Internet Telephony

41. Internet telephony is bound to revolutionize the long distance communications as it will provide services at a fraction of the present cost. The existing policy should not be allowed to hold back the benefits accruing from technological innovations if it is not against the interest of the nation and the consumers. Opening of Internet telephony like the data services may not harm the national interest in any way. On the contrary, it may lead to optimum utilization of resources and provision of least-cost services to the consumers thus leading to maximization of welfare. The affected organizations can also be ISPs under the new policy and take their share in the market. VSNL, DTS and MTNL are already leading ISPs and opening of Internet telephony would provide them a greater opportunity to be major players in the new area.

Corporatization of DOT

42. Complete separation of policy making function of the Government from the service provision function has to be ensured to enable free and fair competition and level playing field in the telecom service sector. The Ninth Five Year Plan had emphasized this as one of the major reforms needed to be carried out in a time bound manner. The NTP, 1999 had set the target of corporatization of DOT by 2001. However, the Govt. has decided to prepone the corporatization to 1st October, 2000. Setting up of 'Bharat Sanchar Nigam Ltd. (BSNL)' has been approved in principle as a public sector company to look after the telecom services of DOT. To ensure least cost service provision, the best value for money to the consumer and earn optimum profits from the investments, the Corporation has to function as a normal commercial organization. To achieve the above objectives, the following needs to be ensured :

(i) The CEO and Board of Directors should have full autonomy of functioning. Government's position should be reflected only through its Director/Directors and should be confined mainly to the protection of value of its investment and profits.

(ii) Full freedom in respect of financial and investment policies including approaching the capital market both domestic and international, freedom to have joint ventures with Indian and international players.

(iii) Full freedom to rationalize or re-align manpower with the objective of increasing efficiency and productivity.

(iv) Government not to provide any budget support to subsidize the operations and will not provide any tax or other concessions different from the private sector.

Convergence of Services and Single Licence Regime

43. Convergence of services is leading to a paradigm shift in the service composition, the structure of the industry and the way markets are organized. Market based on convergence of services would lead to the optimum utilization of resources and least cost of various services. Service segmentations and separate licence for each service become redundant and work only as artificial barriers. These need to be removed by issuing a common or single licence for all telecom services and evolving common revenue share formula. Hence, the present system of multiple licences will have to give way to a single licence regime. This would mean having perfect competition across the country in services and among operators.

Annexure-I

Ninth Plan 1997-2002
Scheme Wise Targets and Achievements - Telecommmunications Services

Name of Scheme	Original Target	Revised Targets	1997-98 Target	1997-98 Actuals	1998-99 Target	1998-99 Actual	1999-2000 Target	1999-2000 RE	1999-2000 Actual
Switching Capacity (lakh lines)	**230.00**	**298.00**	**36.00**	**35.18**	**49.30**	**47.89**	**54.70**	**58.70**	**67.17**
DOT	200.60	273.00	30.80	32.30	44.00	43.75	49.00	53.00	63.02
MTNL	29.40	25.00	5.20	2.88	5.30	4.14	5.70	5.70	4.15
Direct Exchange lines (-do-)	**185.00**	**222.70**	**29.00**	**32.59**	**36.00**	**37.92**	**45.50**	**44.85**	**49.18**
DOT	160.00	200.70	24.60	28.65	31.50	35.45	40.60	40.60	45.40
MTNL	25.00	22.00	4.40	3.94	4.50	2.47	4.90	4.25	3.78
TAX ('-do-)	**18.00**	**23.06**	**3.25**	**3.14**	**4.50**	**2.06**	**4.53**	**5.23**	**4.80**
DOT	15.24	18.87	2.75	2.77	3.87	2.06	4.00	4.00	4.03
MTNL	2.76	4.19	0.50	0.37	0.63	-	0.53	1.23	0.77
Microwave Systems ('000kms)	**90.00**	**70.00**	**18.00**	**17.99**	**19.50**	**14.00**	**15.00**	**15.00**	**19.88**
Optical Fibre System (-do-)	**140.00**	**270.00**	**22.00**	**23.82**	**35.00**	**31.77**	**40.00**	**60.00**	**63.27**
VPT ('000 Nos.)	**239.16**	**278.87**	**83.00**	**42.86**	**80.50**	**37.06**	**45.00**	**45.00**	**33.97**

Annexure-II

NINTH PLAN 1997-2002
Financing Pattern of Telecom Sector

(Rs in crore)

Organisations	Approved Outlay	Mid-term Proposal	1997-98 BE	1997-98 Actual	1998-99 BE	1998-99 Actual	1999-00 BE	1999-00 RE
DOT	**37995.00**	**66193.00**	**10916.00**	**8733.58**	**11000.00**	**9556.11**	**12650.00**	**12635.01**
IR	30965.00	51889.00	8175.00	8733.58	8709.00	9556.11	11672.37	9095.88
Bonds	7030.00	14304.00	2741.00	0.00	2291.00	0.00	977.63	3539.13
MTNL	**5446.00**	**5445.92**	**1518.00**	**912.54**	**2772.00**	**977.44**	**2953.00**	**1250.00**
IR	4066.00	5445.92	1070.85	912.54	2042.00	977.44	1773.00	1250.00
Bonds	1380.00	0.00	447.15	0.00	730.00	0.00	1180.00	0.00
DOT+MTNL	**43441.00**	**71638.92**	**12434.00**	**9646.12**	**13772.00**	**10533.55**	**15603.00**	**13885.01**
IR	35031.00	57334.92	9245.85	9646.12	10751.00	10533.55	13445.37	10345.88
Bonds	8410.00	14304.00	3188.15	0.00	3021.00	0.00	2157.63	3539.13
WMO/WPC#	**44.04**	**268.73**	**7.00**	**4.37**	**6.10**	**5.75**	**8.10**	**7.60**
VSNL	**2737**	**7319.03**	**825.00**	**407.71**	**1004.65**	**761.62**	**1100.05**	**911.77**
IR	**2737**	**7319.03**	825.00	407.71	1004.65	761.62	1100.05	911.77
ITI	**175.00**	**106.64**	**72.00**	**15.00**	**94.00**	**42.00**	**74.00**	**80.00**
IR	0.00	106.64	71.00	-148.00	0.00	-52.00	0.00	80.00
Bonds	150.00	0.00	0.00	150.00	0.00	94.00	74.00	0.00
Others	25.00	0.00	0.00	13.00	94.00	0.00	0.00	0.00
B. support	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
HTL	**45.00**	**81.29**	**16.29**	**7.73**	**11.08**	**9.42**	**16.12**	**11.78**
IR	27.00	49.59	5.29	5.73	9.08	9.42	6.51	11.78
Bonds	0.00	7.20	0.00	0.00	0.00	0.00	0.00	0.00
Others	18.00	0.00	9.00	0.00	0.00	0.00	9.61	0.00
B. support	0.00	24.50	2.00	2.00	2.00	0.00	0.00	0.00
Total	**46442.04**	**79414.61**	**13354.29**	**10080.93**	**14887.83**	**11352.34**	**16801.27**	**14896.16**
IR	**37795.00**	**64810.18**	10076.14	9911.56	11764.73	11252.59	14551.93	11349.43
Bonds	**8560.00**	**14311.20**	3188.15	150.00	3021.00	94.00	2231.63	3539.13
Others	**43.00**	**0.00**	80.00	13.00	94.00	0.00	9.61	0.00
B. support	**44.04**	**293.23**	10.00	6.37	8.10	5.75	8.10	7.60

: Includes Rs 10 cr for WMO; Rs 5 cr for WPC; Rs 2 cr for TRAI for 2000-01

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Annexure-III

NINTH PLAN 1997-2002
Financing Pattern of Telecom Sector

(Rs in crore)

Organisations	Approved	Mid-term	1997-98		1998-99		1999-00	
	Outlay	Proposal	BE	Actual	BE	Actual	BE	RE
DOT	**37995.00**	**66193.00**	**10333.21**	**8267.30**	**9749.18**	**8469.48**	**10576.92**	**10564.39**
IR	30965.00	51889.00	7738.55	8267.30	7718.69	8469.48	9759.51	7605.25
Bonds	7030.00	14304.00	2594.66	0.00	2030.49	0.00	817.42	2959.14
MTNL	**5446.00**	**5445.92**	**1436.96**	**863.82**	**2456.79**	**866.29**	**2469.06**	**1045.15**
IR	4066.00	5445.92	1013.68	863.82	1809.80	866.29	1482.44	1045.15
Bonds	1380.00	0.00	423.28	0.00	646.99	0.00	986.62	0.00
DOT+MTNL	**43441.00**	**71638.92**	**11770.16**	**9131.12**	**12205.97**	**9335.77**	**13045.99**	**11609.54**
IR	35031.00	57334.92	8752.22	9131.12	9528.49	9335.77	11241.95	8650.40
Bonds	8410.00	14304.00	3017.94	0.00	2677.48	0.00	1804.04	2959.14
WMO	44.04	**268.73**	**6.63**	**4.14**	**5.41**	**5.10**	6.77	**6.35**
VSNL	2737.00	**7319.03**	**780.95**	**385.94**	**890.41**	**675.02**	**919.77**	**762.35**
IR	2737.00	**7319.03**	780.95	385.94	890.41	675.02	919.77	762.35
ITI	**175.00**	**106.64**	**68.16**	**14.20**	**83.31**	**37.22**	**61.87**	**66.89**
IR	0.00	106.64	67.21	-140.10	0.00	-46.09	0.00	66.89
Bonds	150.00	0.00	0.00	141.99	0.00	83.31	61.87	0.00
Others	25.00	0.00	0.00	12.31	83.31	0.00	0.00	0.00
B. support	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00
HTL	**45.00**	**81.28**	**15.42**	**7.32**	**9.82**	**8.35**	**13.48**	**9.85**
IR	27.00	49.59	5.01	5.42	8.05	8.35	5.44	9.85
Bonds	0.00	7.20	0.00	0.00	0.00	0.00	0.00	0.00
Others	18.00	0.00	8.52	0.00	0.00	0.00	8.04	0.00
B. support	0.00	24.50	1.89	1.89	1.77	0.00	0.00	0.00
Total	**46442.04**	**79414.61**	**12641.32**	**9542.72**	**13194.92**	**10061.46**	**14047.88**	**12454.98**
IR	37795.00	64810.18	9538.19	9382.39	10426.95	9973.05	12167.17	9489.49
Bonds	8560.00	14311.20	3017.94	141.99	2677.48	83.31	1865.91	2959.14
Others	43.00	0.00	75.73	12.31	83.31	0.00	8.04	0.00.
B. support	44.04	293.23	9.47	6.03	7.18	5.10	6.77	6.35

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Annexure-IV

Status of Cellular Network
(As on 31st Dec., 1999)

State/UT	Operator-I Name	Operator-I Customer Base	Operator-II Name	Operator-II Customer Base	Total Customer Base
AP	JT Mobile	33211	Tata	54738	87949
Assam	Reliance	5590	-	-	5590
Bihar	Koshika	N.A.	Reliance	17419	17419
Gujarat	Birla AT & T	79752	FASCEL	27776	107528
Haryana	Aircell	NA	Escotel	20172	20172
HP	Reliance	473	Bharti Tel.	4288	4761
Karnataka	JT Mobile	35887	Spicecom	68900	104787
Kerala	Escotel	41229	BPL	39552	80781
MP	RPG	12031	Reliance	18136	30167
Maharastra	Birla AT & T	57260	BPL	45107	102367
North East	Hexacom	NIL	Reliance	803	803
Orissa	Koshika	N.A.	Reliance	8403	8403
Punjab	JT Mobile	N.A.	Spicecom	79672	79672
Rajasthan	Aircell	NA	Hexacom,	15462	15462
Tamil Nadu	BPL	42292	Aircel	28861	71153
UP(E)	Aircell	21643	Koshika	78053	99696
U.P. (W)	Escotel	48897	Koshika	NA	48897
West Bengal	Reliance	4674	-	-	4674
J&K	-	-	-	-	-
A & N Islands	-	-	-	-	-
Delhi	Bharti	153498	Sterling	126054	279552
Calcutta	Usha	34904	Modi Telstra	33126	68030
Chennai	Skycell	22963	RPG	24041	47004
Mumbai	Hutchinson	143371	BPL	155373	298744
All India					**1583611**

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Annexure-V

Service/Item-wise FDI inflow(Aug 91-March 2000)

(Rs in crore)

Sevice/Item	FDI	% of Total
Basic services	266.59	6.30
Cellular	2086.21	49.30
Radio Paging	90.99	2.15
E-mail	68.75	1.62
VSAT	13.77	0.33
Cable TV	55.77	1.32
Satellite Telephone	48.12	1.14
Radio Trunking	6.16	0.15
Manufacturing	668.85	15.81
Holding Companies	926.47	21.89
Total	**4231.61**	**100.00**

Annexure-VA

Inflow of FDI – Year wise
(Aug'91-Mar' 2000)

(Rs. in crore)

Year	FDI Inflow
1993	2.06
1994	14.02
1995	206.74
1996	764.83
1997	1245.19
1998	1775.64
1999	212.67
2000	10.46
Total	**4231.61**

Source: Dept. of Telecom

Annexure-VB

Inflow of FDI - Country wise
(Aug'91-Mar' 2000)

(Rs. in crore)

Sl.No.	Country	FDI	Percentage
1.	Argentina	0.001	0.00
2.	Australia	34.250	0.81
3.	Austria	0.950	0.02
4.	Bahrain	0.800	0.02
5.	Canada	11.160	0.97
6.	Denmark	7.250	0.17
7.	Finland	35.580	0.84
8.	France	83.490	1.97
9.	Germany	1.270	0.03
10.	Hong Kong	68.370	1.62
11.	Israel	56.000	1.32
12.	Japan	53.980	1.28
13.	Kuwait	0.050	0.00
14.	Luxembourg	10.160	0.24
15.	Malaysia	59.990	1.42
16.	Mauritius	2832.441	66.94
17.	Netherlands	214.390	5.07
18.	NRI	75.670	1.79
19.	Philippines	7.350	0.17
20.	Singapore	5.420	0.13
21.	South Korea	19.670	0.46
22.	Sweden	88.190	2.08
23.	Switzerland	0.230	0.01
24.	Thailand	171.660	4.06
25.	UK	74.940	1.77
26.	USA	288.357	6.81
	Total:	**4231.619**	**100**

Annexure-VI

Telecom Services
International Comparison (1998)

Parameter	Unit	USA	UK	China	Japan	Korea	India	LIC	World
Tel.lines	M	178.80	32.80	80.42	63.58	20.09	21.59	33.94	844.03
Digital	%	89.3	100	99.8	100	68.7	99	86.3	87.4
Growth rate	%	3.8	3.7	29	1.3	2.6	21.7	17.1	6.9
Tele density	Per 100	66.13	55.64	6.96	50.26	43.27	2.2	1.64	14.26
Public phones	M	1.75	0.336	2.062	0.777	0.607	0.732	0.430	10.79
Cell phones	M	69.209	14.874	23.863	47.285	14.019	1.195	2.349	318.893
Revnue/line	US$	1378	1128	235	1322	533	284	391	871
Lines / empl.		175	212	197	370	332	51	44	155
Total Invst.	US$ (M)	24218	7454	18127	35403	8096.5	2405	4591	175655
Invst./line	US$	135	232	207	558	396	135	166	215
Internet	M lines	60.00	8.000	2.100	16.740	3.103	0.500	0.776	144.801

LIC : low Income Countries. Source: ITU
M : Million

Annexure - VII

STATUS OF VPTS
As on 31.03.2000

State/UT	No. of Villages	With VPTs			Without VPTs
		MARR	OH	Total	
A & N Is.	282	146	128	274	8
Andhra Pradesh	29460	12399	10980	23379	6081
Assam	22224	9293	4888	14181	8043
Bihar	79208	14281	10642	24923	54285
Gujarat	18125	7413	6510	13923	4202
Haryana	6850	3624	3173	6807	43
Himachal Pradesh	16997	2842	7522	10364	6633
Jammu & Kashmir	6764	2601	1192	3793	2971
Karnataka	27066	14692	11109	25801	1265
Kerala	1530	32	1498	1530	0
Madhya Pradesh	71526	25553	20945	46498	25028
Maharastra	42467	18848	12693	31541	10926
North East	14446	3622	714	4336	10110
Orissa	46989	11542	11386	22928	24061
Punjab	12687	6195	5889	12084	564
Rajasthan	38634	17703	6024	23727	14907
Tamil Nadu	17991	7229	10616	17845	146
Uttar Pradesh	115249	41103	28920	70023	45226
West Bengal	38805	12185	8233	20418	18387
Delhi	191	0	191	191	0
Total	**607491**	**211313**	**163253**	**374566**	**232886**

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Annexure-VIII

Roll Out Plan For VPTS - 2000-2002

State/UT	No. of Villages	Villages yet to be covered	Dept. of Telecom Services 2000-01	Dept. of Telecom Services 2001-02	Pvt. operators (2000-02)
A & N Is.	282	8	8	0	0
Andhra Pradesh	29460	6081	0	0	6081
Assam	22224	8043	5000	3043	0
Bihar	79208	54285	24651	29634	0
Gujarat	18125	4202	0	0	4202
Haryana	6850	43	4	39	0
Himachal Pradesh	16997	6633	4000	2633	0
Jammu & Kashmir	6764	2971	2000	971	0
Karnataka	27066	1265	1265	0	0
Kerala	1530	0	0	0	0
Madhya Pradesh	71526	25028	5860	0	19168
Maharastra	42467	10926	0	0	10926
North East	14446	10110	5110	5000	0
Orissa	46989	24061	14000	10061	0
Punjab	12687	564	0	0	564
Rajasthan	38634	14907	0	0	14907
Tamil Nadu	17991	146	55	91	0
Uttar Pradesh	115249	45226	27000	18226	0
West Bengal	38805	18387	11047	7340	0
Delhi	191	0	0	0	0
Total	**607491**	**232886**	**100000**	**77038**	**55848**

Annexure-IX

Status of Telecom Network (31.03.2000)

State/UT	DTS	DELs Pv.Opt	Cell Phones	Total	Tele-density
Andhra Pradesh	2227487	26713	140110	2358310	3.12
Assam	273068	0	5428	278496	1.06
Bihar	627400	0	19847	647247	0.65
Gujarat	1904575	0	132068	2036643	4.22
Haryana	642001	0	22449	664450	3.35
Karnataka	1829400	0	119563	1948963	3.74
Kerala	1697406	0	94573	1791979	5.55
Madhya Pr	1095952	91967	37895	1225814	1.54
Maharastra	4415833	22913	419209	4857955	5.33
Orissa	423309	0	9268	432577	1.21
Punjab	1128202	0	89761	1217963	5.18
Rajasthan	1109400	0	18488	1127888	2.11
Tamil Nadu	2632254	0	159621	2791875	4.52
Uttar Pradesh	2100578	0	161623	2262201	1.33
West Bengal	1550515	0	80122	1630637	2.06
Delhi	1818236	0	314520	2132756	15.27
J & Kashmir	130021	0	0	130021	1.31
Himachal Pr	285130	0	4519	289649	4.32
Tripura	44834	0	0	44834	1.19
Manipur	25000	0	0	25000	0.99
Meghalaya	38146	0	708	38854	1.60
Nagaland	26044	0	0	26044	1.55
Goa	129348	0	NA	129348	8.11
Arunachal Pr	30757	0		30757	2.58
Pondicherry	62576	0	NA	62576	5.63
Mizoram	30615	0	0	30615	3.22
Chandigarh	164050	0	NA	164050	18.47
Sikkim	19737	0	0	19737	3.53
A&N Islands	24463	0	0	24463	6.34
D&NH	7071	0	NA	7071	3.72
Daman & Diu	10204	0	NA	10204	7.29
Lakshadweep	7733	0	NA	7733	10.89
Total:	**26511345**	**141593**	**1793772**	**28446710**	**2.85**

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Annexure-X

Status of Telecom Network
31.03.2000

State/UT	Net Switching Capacity	DELS	Waiting list
A & N Islands	33558	24463	2002
Andhra Pradesh	2585516	2227487	377058
Assam	352189	273068	5475
Bihar	820726	627400	106196
Gujarat	2299754	1921850	232624
Haryana	825150	642001	73262
Himachal Pradesh	369906	285130	24708
Jammu & Kashmir	197003	130021	31882
Karnataka	2236732	1829400	332189
Kerala	2203954	1705139	647165
Madhya Pradesh	1472515	1095952	405344
Maharastra	2889295	2331793	263434
North East	296364	195396	26023
Orissa	526061	423309	42527
Punjab	1662656	1292252	176732
Rajasthan	1413740	1109400	95172
Tamil Nadu	2300536	1926967	598505
Uttar Pradesh	2827689	2100578	325048
West Bengal	705027	541131	157561
Calcutta	1141242	1029121	313
Chennai	968243	767863	16591
Delhi	2124679	1818236	81871
Mumbai	2515188	2213388	23843
TOTAL	**32767723**	**26511345**	**3680715**

Postal Sector

44. The Ninth Five Year Plan seeks to expand the scope and coverage of postal services in a competitive era through programmes of technology upgradation initiated during the Eighth Plan. The main thrust areas are :

- Providing basic postal facilities in remote areas.
- Development and marketing of new services especially for business and professional sectors.
- Modernization of specific functions in priority areas identified with the objective of increasing revenue generation.
- Human resource development aiming at greater customer satisfaction and facing the challenges of a competitive world.

Box-1
Status of Postal Network
(as on 31.3.2000)

Number of Post Offices	154551
Rural Post offices	138149
Urban Post Offices	16402
Sub Post Offices	25166
Head Post Offices	840
Extra Dept. Sub Post Offices	2746
Extra Dept Branch Post Offices	125799
Area covered by a Post Office	21.26 sq. km.
Population Served by a Post Office	5462
Average distance traveled for access to Postal Service *	17.71 km

* : Represents mean maximum distance a person has to travel to avail the counter services

45. An outlay of Rs.507.25 crore was approved for the postal sector for the Ninth Plan (as against Rs.550 crore proposed by the Department of Posts). The likely expenditure in the first three years is Rs.217.33 crore at constant prices. The utilization is expected to be 42.84% of the approved Plan outlay . The reason for the slow pace of expenditure is mainly due to less budgetary allocation and pruning of Plan allocation at the Revised Estimate stage. The scheme-wise details of the outlay and expenditure may be seen in the Annexure.

46. A target of opening 2500 Extra Departmental Branch Offices (EDBOs) and 250 Departmental Sub-Post Offices (DSOs) was fixed for the Plan. In the first two years, 1000 EDBOs and 102 DSOs were opened. In third year, 500 EDBOs and 50 DSOs were envisaged to be opened thereby achieving 60% and 61% of the Ninth Plan target. While this level of performance is impressive, magnitude of the problem coverage dwarfs it.

47. As per the two norms of distance and population, at present there are 5428 villages including Gram Panchayat Village without a post office. Covering these villages could take more than a decade at the present rate of expansion. The scheme of opening new rural post offices suffers from following weaknesses:-

i) The pace of expansion is limited by availability of funds ;

ii) Operational subsidy to the extent of 67% in normal areas and 85% in hilly and tribal areas contributes to the revenue deficit of the department;

iii) Extra Departmental Agents operating the EDBOs stake claim for becoming permanent government employees, thus adding to Government liabilities.

48. This scheme, therefore, neither fulfils the objective of expansion of services at required pace due to limited public sector funding nor is it financially sustainable over time due to the large amount of subsidy involved. As per the existing norm, an EDBO can be opened in normal areas if the anticipated revenue is 33% of the cost. In hilly , tribal, desert or inaccessible areas it needs to cover just 15% of the cost.

49. The minimal norms set years ago for opening post offices need to be reviewed; the offices not satisfying such norms will have to be closed or be replaced with alternative postal services. A new approach is called for which would ensure achieving the twin objective of keeping the government expenditure to the minimum but accelerating the increased access to the services especially for people in remote and far-flung areas. A change of strategy is envisaged in the Plan by reviving (from 1998-99) Panchayat Sanchar Sewa Yojana with similar objectives i.e. utilising the existing Panchayat Raj infrastructure for the organization and operation of these services on commission basis. The Gram Panchayat is to provide suitable accommodation and appoint a suitable person to decide on the functions of Panchayat Dak Kendras and ensuring financial discipline and propriety. Unlike the EDBOs under Government control, Panchayats would have freedom to determine the working hours of the Kendras. As per the initial estimates proposed, one Panchayat Sanchar Sewa Kendra is likely to cost Rs.600 per month. An outlay of Rs.3.02 crore has been provided for this scheme for opening 2700 such Kendras during the Ninth Plan. Two hundred such Kendras were opened in 1998-99; a target of opening 500 Kendras was fixed for 1999-2000. It is proposed to get an evaluation study done

in the last year of the Ninth Plan on the performance of the scheme.

50. Mechanization of operations and modernization through technology is central to attainment of the basic objective of transforming the postal network into a modern and efficient organization. Keeping this in view, the first priority has been accorded to technological upgradation by allotting it 58% of the Ninth Plan outlay of the Department. Central to this are :

- Counter computerization
- Electronic Mail Transfer System
- Mechanization of Mail Handling
- Speed Post
- Track and Trace System

51. Major targets for the Ninth Plan include 5000 multi-purpose counter machines, introduction of mechanized sorting system in three metros; setting up of 2000 satellite based money-order transfer system (ESMO) in the country, 170 V-SATs and modernization of philately. The pace of modernization of post offices is very slow. The number of post offices computerized or using modern equipment is much less compared to the vast network. It may take decades at this pace to cover the major / all post offices in the country. Keeping this in view, an innovative project of hiring the computers on lease-finance basis has been suggested. By end of 1998-99, 318 ESMOs were installed, 21 VSATs upgraded and about 2247 multipurpose counter machines (MPCMs) supplied. A target of installing 60 VSATs, 210 ESMOs and providing 1000 MPCMs was envisaged for 1999-2000. Sixty post offices were to be modernized in 1999-2000 in addition to the 406 post offices modernized in first two years.

52. Human resource development has been accorded high priority alongside the strategy of technology upgradation and modernization of operations. A comprehensive programme has been drawn up with emphasis on developing necessary skill on computers and handling other modern equipment. But the achievement both in physical and financial spheres has been mixed. Only 52% of the funds i.e. Rs.7.35 crore out of Rs.14 crore earmarked for the purpose could be utilised by the end of the third year and the training imparted to staff etc. varied between 35.29% to about 100% in physical targets earmarked for various training programmes.

53. Modernization of mail processing is a priority area accounting for about 28% of the Plan outlay. The objective is to deal expeditiously with rising volume of business mail. The activities include upgrading operational equipment for sorting, fabrication and upgradation of RMS vans, computerization of transit mail offices etc. The progress in this sphere has been slow as less than 25% funds was expected to be utilised by the end of third year. So are the physical achievements.

54. Ninth Plan envisaged computerization of postal life insurance etc. to be taken up in 32 regions and upgradation of computer system in 20 circles. The performance is quite satisfactory. With opening up of the insurance sector, Postal Life Insurance deserves more attention as the concept of insurance will undergo a drastic change. The traditional strategy of marketing of Postal Life Insurance has to be replaced by a new approach to make its reach as wide spread as the infrastructure. The Department will be wise to have an expert agency to reform the existing policy structure for leveraging its strength in the insurance area. The Planning Commission can assist the Department in getting a study done in the area. Policy changes including creation of a separate organisation with greater autonomy require to be addressed.

55. The Department considers appropriate office accommodation an essential element for providing efficient and responsive postal service. As suitable accommodation for post offices is becoming more and more difficult to obtain on rent in urban ares, the need for departmental buildings in such areas has increased enormously. About 22,000 post offices i.e. 88% of Departmental Sub-Post Offices (DSO) are housed in rented accommodation and accounted for rent of about Rs.218 crore in 1997-98. This necessitated setting aside an outlay of Rs.119.62 crore for postal buildings and staff quarters. During the first two years, 79 post/mail offices, 6 administrative offices and 471 staff quarters were readied. About 59% of the outlay i.e. about Rs.71 crore was expected to be utilized in first three years. Given the cost of real estate in major cities and elsewhere, in addition to the needs of upkeep, there is need for a re-look at the approach to securing accommodation for new post offices and quarters for staff. Accommodation for single service project such as postal services may prove to be capital intensive and the Department may consider promoting joint services with government and private sector telecom and info-tech service providers

56. Business development, streamlining administration and financial management have been important areas initiated since the Eighth Plan. The activity includes market survey, promotion of premium products, mechanization of pick up and delivery for business development and development of maintenance of information systems and intensive use of information technology. Both the physical targets and outlay utilization

is satisfactory as about 70% of financial outlay were expected to be utilized by 1999-2000.

57. Business Development Directorate provides the focus for promoting activities to optimise revenue generation. It would be appropriate to develop this Directorate fully with a business orientation and free from bureaucratic rigidity. The Department undertook creation of Customer Care Centres as per Government directives at 228 places to make services more open, transparent and responsive and to rationalize and customize public grievances handling and processing in the Department. About 182 Sub-centres could be opened in first three years thereby achieving 80% of the Plan targets. Certain innovative non-conventional services like advertisement needs to be introduced.

Policy Issues

58. In the international scenario, the Indian postal network presents a mixed picture viewed from various parameters. It does not seem to be over-staffed as the number of employees per thousand population is among the lowest. However, with respect to the area serviced per employee, India is among the lowest. The following table gives the international comparison of the postal network in select countries.

Postal Network – International Scenario

Country	Full time Staff	Permament Post Office	Populations served	Average area served (sq/km)	Employee #	Area serviced **
USA	792041	38159	7090	246	2.93	12.87
Great Britain	174692	18760	3126	13	2.48	1.40
France	227680	17038	3454	32	3.87	2.39
Malaysia	13095	1382	7489	239	1.27	25.22
Brazil	79367	11713	13913	727	0.49	107.29
Indonesia	26460	20139	10150	95	0.13	72.30
Sri Lanka	22462	4282	4383	15	1.20	2.86
China	1140000	129455	9608	74	0.92	8.40
India	**603400**	**154149**	**5477**	**21**	**0.62**	**5.39**

* : Per post office. # : per thousand population. ** : by an employee

Source: Dept. of Post

59. In most of these countries, the postal operations are fully self-financing with respect to the operational costs. Even a major chunk of investments required for modernization etc. (equivalent to India's Plan expenditure) is financed out of the revenues generated by the system. Only a part of the Plan expenditure is financed through subsidy from the Government. As against this, about 37% of operating expenses of the postal system in India is financed from the subsidy. The following table gives details in this regard :

Financing of Postal Operations - International Scenario (1998)

(Figures in million SDR)

Country	Operative Expenses	Investment	Total Expenses	Receipts	OE as % recpt.	TE as % recpt.
USA	41035.51	2627.84	43663.35	42617.19	96.29	102.45
Britain	7816.36	577.72	8394.08	8281.84	94.38	101.36
France	12148.15	543.07	12691.22	12220.92	99.40	103.85
Malaysia	98.43	11.87	110.30	103.62	94.99	106.44
Brazil	1859.99	65.43	1925.42	1936.59	96.04	99.42
Indonesia	95.52	11.93	107.46	106.82	89.43	100.60
S. Lanka	21.08	2.56	23.64	17.12	123.41	138.06
China	2966.82	0.00	2966.82	2444.21	121.38	-
India*	**737.51**	**12.49**	**750.00**	**467.85**	**157.64**	**160.31**

Source : Postal Statistics, 1998; International Bureau of Universal Postal Union Deptt. of Posts

* : Relates to the year 1998-99.

60. Postal finance position in India has deteriorated quite sharply over the last decade. The deficit has shot up almost 20 times over the last nine years – increasing from Rs.91.81 crore in 1992-93 to Rs.1,982.47 crore in 2000-01 (Budget Estimates). The increase has been especially steep since 1997-98. This is due to a marked imbalance in the growth of establishment expenditure which grew at the rate of 22-25 % per annum and of revenues which recorded a much lower average annual growth of less than **10%** . Interestingly the manpower employed in the Department has remained almost constant over this period. The implementation of the recommendations of Fifth Pay Commission and the Talwar Committee on extra departmental employees are basically responsible for escalation in the establishment expenditure. Regularisation of three lakh ED (extra departmental) employees as Government servants, if implemented, may lead to further deterioration. The following table gives details in this regard.

Revenue-Expenditure- Deptt. of Post

(Rs. in crore)

Year	Total Manpower	Expnd.On Estbl.	Total Expnd.	Total Revenue	Deficit
1992-93	596062	1246.83	1649.18	1557.37	91.81
1993-94	597663	1439.41	1866.79	1659.7	207.09
1994-95	597175	1657.55	2130.7	1778.89	351.81
1995-96	598323	1904.85	2472.14	1812.73	659.41
1996-97	594685	2220.69	2982.32	2279.06	703.26
1997-98	604257	2777.83	3597.92	2604.49	993.43
1998-99	602987	3396.53	4351.29	2760.32	1590.97
1999-00	603435	3779.24	4835.53	3095.00	1740.53
2000-01	603430	4044.98	5242.47	3260.00	1982.47

61. The Postal deficit is an open-ended subsidy and forms part of the General budget. This is an explosive situation which cannot be sustained for long except at a very high cost and could slow down flow of funds to more needy sectors like infrastructure and social development.

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62. A large subsidy is provided on majority of the postal services. At present, only six services i.e. Speed post, Insurance, Foreign mail, Letter, Book post and parcel yield surplus per unit activity / services. Registration (27.83%), money order (14.82%), savings bank (14.83%), post card (13.66%), newspaper (7.41%) and letter card (11%) are the major items of subsidy (1999-2000 projections). The following table gives the details of per unit subsidy and the total amount involved for the major services.

Subsidy on Postal Services

Service	1997-98		1998-99		1999-2000	
	Per Unit (In paise)	Total (in Rs. crore)	Per Unit (In paise)	Total (in Rs. crore)	Per Unit (In paise	Total (In Rs. crore)
Post Card	347.37	106.61	310.97	149.73	427.81	181.90
Letter Card	272.58	121.11	200.38	135.46	257.17	146.56
Regd. S	455.55	62.26	362.84	725.40	562.03	98.59
Newspaper B	855.22		725.40		1073.00	
Registration	1269.85	369.50	948.35	258.80	1324.45	370.45
Money Order	1124.85	121.03	1247.89	135.40	1795.93	197.37
Parcel	149.93	10.09	870.64	53.89	-	-
Savings Bank	269.93	148.49	181.90	85.80	403.34	194.69
IPO	1144.61	29.30	1299.42	32.36	1340.17	34.58
NSC+KVP	1221.53	78.30	1070.63	71.84	1554.92	98.58
MSY	2707.91	23.29	2497.19	30.72	3220.38	40.25

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63. There seems little justification for subsidizing services like registration, savings bank, registered newspapers and money orders. The subsidy given for money order services has increased by almost 50% in one year. There is a strong case for undertaking a serious review of the rates and reduce subsidy in those sectors or services which are mostly used for commercial purposes or which are used only once in a while even by people of low income. The subsidy element in Post Card is Rs.4.27 per card. This is a queer situation. Traditionally, post card has been considered a medium used by the poorest sections of the society specially in the rural areas for sending messages to relatives and family members at distant places. There has been a changing pattern of life even in the rural areas. How much ,then, is the benefit for the poor from the post card is a matter for study. From the economic point of view, there appears to be absolutely no justification for having a separate, low capacity medium of letter writing, subsidized so heavily; a serious review of the pricing of the post card and the subsidy quantum is called for. A review of the need for special services like VPP is also necessary in the wake of the growth of courier services.

64. With the long term aim of making the postal services self-financing at the sectoral level, the general principle of pricing of postal services has to be on a 'cost plus' basis. Cross-subsidization for a few most essential services like post card etc. could be built into the system to take care of the interest of the poorest sections of the society. Reducing the operational cost on all services is relatively more important aspect of a two-pronged strategy of reducing subsidy. A comprehensive cost reduction plan needs to be worked out by the Department. . The establishment cost has to be kept at the minimum. Identification, re-training and re-deployment of the surplus staff would have to be an integral part of the cost- cutting effort. The other aspect of strategy to minimize subsidy and reduce deficit is the revision of postal rates appropriately. Necessary changes in the institutional mechanism for tariff revision may be effected if required to ensure timely and adequate revisions.

65. Revision of postal tariff is not keeping pace with the increase in operational cost. The revision is less frequent and inadequate in relation to the increase in the operational cost. The following Table gives the details about tariff revision.

Revision of Postal Tariff

(Figures in %)

Services	1.1.87	1.4.88	11.6.90	1.10.96	1.6.97	31.8.98	26.5.99
Post Card			No revision		67	-	-
Printed post card	60		50	66	50	-	33
Letter card	-	43	50	-	33	50	33
Registration	64	11	20	33	25	20	17
Insurance	No revision		100	No revision	100	38	-
Newspaper Single	200			No revision			
Bundle	66						
Money Order	-	33	25	-	-	-	-
VPP			No revision since 1983				100

66. The Indian Post Office Act 1898 (IPO Act) invests the Department of Post with the monopoly in handling articles of letter mail. Considerable competition has emerged in non-letter carriage services. The Department is providing universal postal services specially in the large rural sector as a social service but without the advantage of a remunerative pricing even for the services in business/ professional sector where customers are willing to pay higher prices. This necessitates opening up of letter carriage services to the private sector. Suitable amendment of the IPO Act is needed to keep pace with the changes over a century. The review of the Act should not be an in-house exercise but an open and transparent exercise undertaken jointly by an Inter-Ministerial Group with the help of an outside expert organization.

67. To ensure efficiency and improve quality of service, it may be desirable to open up select postal services run by the Department of Posts to the private entrepreneurs. This will help bring flow of required funds into this sector and also enable the Department to pay greater attention to its main activity i.e. carrying of mail. In these days of instant communication a 10 AM to 5 PM postal service through fixed outlets is anachronistic. There

is an urgent need to work out a comprehensive policy for gradual opening up of the sector. Some of the areas suggested for immediate consideration are :-

- Opening of new post offices in urban areas through licensed postal agents as private commercial enterprise;
- Printing of postal stationery;
- Sale of stationery through licensed agents;

68. To sum up, the time has come for the postal services to undergo a process of rationalization both in terms of the mix of services offered and the pricing. The existence and continuing growth of the vast network of courier services should serve as an opportunity to readjust priorities and rationalise the pricing structure. Dependence on Budgetary support should be drastically reduced and should be visibly linked to providing services in those areas which are not covered by commercial reach. This should be the guiding principle for the remaining period of the Ninth Plan and beyond.

Annexure-I

NINTH PLAN 1997-2002
Financing Pattern of Postal Sector

(Rs n crore)

	Name of the Scheme	Approved Outlay	Mid-term Proposal	1997-98		1998-99		1999-00	
				BE	Actual	BE	Actual	BE	RE
I.	Expansion of Postal Network	42.7	42.7	3.55	3.92	3.55	3.96	4.97	5.53
II.	Upgradation of Technology	133.98	141.48	31.12	28.30	31.12	22.76	29.63	33.98
III.	Human Resource Development	14.08	14.08	2.79	2.35	2.79	2.84	2.74	3.45
IV.	Modernisation of Mail Processing	141.3	176.30	8.79	3.37	8.79	7.28	38.22	19.06
V.	Business Development & Marketing	17.80	18.05	3.85	2.29	3.85	3.66	7.20	7.20
VI.	Material Management	1.20	1.20	0.00	0.00	0.00	0.00	0.00	0.21
VII.	Postal Life Insurance	14.42	14.42	4.00	2.96	4.00	2.28	1.52	1.49
VIII.	Philately	5.12	5.12	0.50	0.50	0.50	0.69	0.57	0.58
IX.	Postal Buildings & Staff Quarters	119.62	119.62	35.00	24.13	35.00	27.53	10.88	21.83
X.	Streamlining of Adm. & Financial Management	9.63	9.63	5.40	2.73	5.40	1.69	2.73	1.14
XI.	Public Grievances	7.4	7.4	0.00	1.72	0.00	1.00	1.54	1.54
XII.	North East								3.99.
	Total	**507.25**	**550.00**	**95.00**	**72.27**	**95.00**	**73.69**	**100.00**	**100.00**

Annexure-II

NINTH PLAN 1997-2002
Financing Pattern of Postal Sector

(Rs in crore '97 Price)

	Name of the Scheme	Approved Outlay	Mid-term Proposal	1997-98		1998-99		1999-00	
				BE	Actual	BE	Actual	BE	RE
I.	Expansion of Postal Network	42.7	42.7	3.36	3.71	3.15	3.51	4.16	4.62
II.	Upgradation of Technology	133.98	141.48	29.46	26.79	27.58	20.17	24.77	28.41
III.	Human Resource Development	14.08	14.08	2.64	2.22	2.47	2.52	2.29	2.88
IV.	Modernisation of Mail Processing	141.3	176.30	8.32	3.19	7.79	6.45	31.96	15.94
V.	Business Development& Marketing	17.80	18.05	3.64	2.17	3.41	3.24	6.02	6.02
VI.	Material Management	1.20	1.20	0.00	0.00	0.00	0.00	0.00	0.18
VII.	Postal Life Insurance	14.42	14.42	3.79	2.80	3.55	2.02	1.27	1.25
VIII.	Philately	5.12	5.12	0.47	0.47	0.44	0.61	0.48	0.48
IX.	Postal Buildings & Staff Quarters	119.62	119.62	33.13	22.84	31.02	24.40	9.10	18.25
X.	Streamlining of Adm. & Financial Management.	9.63	9.63	5.11	2.58	4.79	1.50	2.28	0.95
XI.	Public Grievances	7.4	7.4	0.00	1.63	0.00	0.89	1.29	1.29
XII.	North East								3.34
	Total	**507.25**	**550.00**	**89.92**	**68.40**	**84.20**	**65.31**	**83.62**	**83.62**

Annexure - III

NINTH PLAN 1997-2002(Review)
Physical Targets & Achievements

Sl. No. Schemes	Ninth Plan	1997-98 Target	1997-98 Actual	1998-99 BE	1998-99 Actual	1999-2000 Target	1999-2000 RE
1. Expansion of Postal Network							
a) Opening of Pos.							
(i) EDPOs	2500	500	402	598	598	500	500
(ii) Dsos	250	50	52	50	50	50	50
b) Infrastre. Equip. to EDBOs	2400	4800	7746	2700	3395	500	500
c) Panchayat Sanchar Sewa					200	500	500
2. Upgradation of Technology							
a) Supply of MPCMs including SB Lans	5000	1000	918	500	1429	1000	1250
b) Modernisation of Pos	505	205	308	60	98	60	100
c) Mechanical Equipment							
(i) Hand Cancellors	10000	2000	0	10000	3285		
(ii) Stamp Cancelling Machines	100	20	20	20	20	100	20
(iii) Electronic Franking Machines	500	100	250	150	150	100	141
(iv) Tying and bunding Machines	30			30	30		
3. Installation of VSATs	170			20	0	60	62
4. Installation of ESMOs	2000	350	318	250	10	210	266
5. Upgradation of VSATs	75			30	21		
6. Material Management							15PSDs
7. Printing & Paper cutting	1						
8. Diesel fork lift trolleys	4						
9. Human ResourceDevelopment							
a) In service training Gr "A"	180	50	30	25	30	30	30
b) Refresher training	16051	4000	4551	4000	4315	2500	2500
c) Computer training	12000	1500	2775	2100	4062	1225	3200
d) Training for EDBPMs	51000					18000	18000
e) Training to Gr. C and Postman	15750	6000	7107	3000	7148	1800	1800
10. Customer care centre	All Div.			59	60	100	0
11. Modernisation of Mail Processing							
a) Setting up of AMPCs	3					2	0
b) Mail office Modernisation	120	20	20	35	43	15	40
c) RMS Vans	28				24	10	2+7
d) Purchase of MMS Vehicles	50	7	8	14	12	4	4
e) Registration Delivery					22+6		
f) HRO/DO Comp.	20	4	1			5	12
g) TMO computerisation	25	3	6	7	6	4	5
h) Mopeds	500			75	147	34	
12. Business Development Marketing							
a) Computerisation of PPCs	40	8	8	10	10	22	122
b) Business off. for Speed Post	40 Centres			7	7	10	30
c) Computerisation of SPCCs	50	10	7	20	20	30	
13. Postal Life Insurance							
a) RPLI Computerisation	32R	6R	19 regions	12R+120HO	11R+120HO	6	66
b) Upgradation of Computers	20R	4R	5 circles	4C+1PLI	4C+1PLI	10	10
14. Philately (Computerisation)	52E+200N	5E +10N	5	25	21	10	
15. Postal Buildings	400	84	72	22	25	16	15
16. Staff Quarters	950	260	275	185	196	30	144
17. Streamlining of Adm. & Finl. Management							
a) CC in PAO				6	4	7	4
b) MO in PAO						4	

CHAPTER 27

INFORMATION TECHNOLOGY

The Information Technology (IT) sector has tremendous potential to generate foreign exchange earnings, high quality employment and also contribute to productivity in rest of the economy. In industrialised countries, IT penetration in different sectors is leading to a sea-change in the pattern of working in almost every walk of life. While penetration level in India is low at present, the new technology provides tremendous opportunities for the country to benefit from the international boom in IT and also use IT in domestic economy to achieve efficiency gains. The strategic imperatives being followed in the Ninth Plan are production at internationally competitive quality and prices, market promotion and export thrust, rationalisation of procedures to ensure growth, identifying niche areas in the world market, strengthening R&D (Research & Development) and manpower base, computing in Indian languages and developing new applications of IT and electronics relevant to India. The penetration of computers, which is at present four per thousand of Indian population, is targeted to grow to ten per thousand by the year 2001.

2. A major part of IT and electronics industry is in private sector and Ministry of Information Technology (MIT) is playing a promotional and facilitating role for development of the industry. The share of private sector, which was 76 per cent in electronics hardware production in 1996-97, is likely to reach a level of about 86 per cent by the year 2001-02.

3. The growth rate of electronics and IT production during first three years of Ninth Five Year Plan has gradually increased from 20.4 per cent in 1997-98 to 26.4 per cent in 1999-2000. While software exports exceeded the Plan targets by registering impressive growth rates of over 55 per cent in first three years of the Plan, growth in electronics hardware sector remained stagnant at around 10 per cent. The hardware industry is facing stiff competition as a result of poor infrastructure, high cost of finance and the tariff structure. It is desirable that recommendations of the National IT Task Force (Second and Third Reports) are examined and implemented to accelerate the growth of hardware industry. The reports focus on development, manufacture and export of IT Hardware and a long term national IT policy.

4. The following table shows IT and electronics production in first three years of the Ninth Plan:

(Rs. Crore)

Sl	Item	1997-98	1998-99	1999-2000
1	Consumer Electronics	7,600	9,200	11,200
2	Industrial Electronics	3,150	3,300	3,400
3	Computers	2,800	2,300	2,000
4	Communication & Broadcast Eqp.	3,250	4,400	4,400
5	Strategic Electronics	900	1,300	1,450
6	Components	4,400	4,750	5,200
	Sub-total (Hardware)	**22,100**	**25,250**	**27,650**
7	Software for Exports	6,500	10,940	17,150
8	Domestic Software	3.470	4,950	7,200
	Total	**32,070**	**41,140**	**52,000**

5. From the above trend it appears that the production target of Rs. 1,38,350 crore set for the terminal year of the Ninth Five Year Plan may not be achieved. However, export target of Rs.48,930 crore set for that year would be realised as Computer Software export is the major contributor and it has been recording good growth in the recent past.

Liberalisation and Thrust Areas

6. With delicensing of the consumer electronics sector, liberalisation in foreign investment and easing of export-import policies, the country is attracting new investments; it is restructuring existing activities, diversifying the product range and is facing an intensely competitive environment. Most of the renowned global brands in consumer electronics and IT sector have either established production facilities in the country or are present in the market through technical or financial collaboration, offering the consumer a wide choice in terms of product features, quality and competitive prices. India is a signatory to the Information Technology Agreement and is committed to ensure penetration of IT at all levels in the society. The country has also agreed gradually to phase out tariff on IT products to zero by the year 2003.

Special Action Plan

7. An agenda under the Special Action Plan (SAP) of the Prime Minister is to make India a Global Information Technology Superpower and one of the largest generators and exporters of software in the next ten years. The Government constituted a National Task Force on Information Technology and Software Development inMay 1998. The Task Force submitted its First Report in July 1998, with a 108- point Action Plan. The First Report is at

BOX No. I

INCENTIVES FOR INFORMATION TECHNOLOGY

- Depreciation of IT products would be allowed at 60 per cent.
- Income derived by foreign companies as dividend and interest would be taxed at the rate of 20 per cent.
- Payments in the form of royalty and technical service fee would be taxed at 30 per cent.
- Under section 80 HHE of the Income Tax Act, definition of Computer Software has been widened to include transmission of data.
- Exemption of withholding tax on interest on external commercial borrowings has been extended to the IT sector.
- Computers have been exempted from Gift Tax.
- The tariff levels are being brought in line with the average international levels in a phased manner.

various stages of implementation. Some of its key recommendations are:

- Opening of Internet Gateway access to private Internet Service Providers (ISPs).
- Encouraging private Software Technology Parks.
- Zero customs and excise duty on IT software.
- Income tax exemption to software and services exports.
- Encouragement to set up venture capital funds.
- Create a fund to handle Y2K problem.
- Promoting e-commerce.
- Framing cyber laws.
- Strengthening manpower base.
- Updating various databases over NICNET.
- Sharing information with users/ public.
- Earmarking 1 to 3 per cent of budget of every Ministry/ Department for IT applications.
- Networking all Universities and research institutions.
- Dollar Linked Stock Option to employees of Indian Software Companies.
- Sweat Equity.
- Financial package for buying computer; etc.

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Major Initiatives & Achievements

8. In October 1999, the Government set up a new Ministry of Information Technology (MIT) to act as a nodal institution and facilitator in respect of all initiatives in Central and State Governments, academia, the Indian private sector and successful Indian IT professionals abroad. MIT will actively promote and accelerate Internet revolution in India, IT enabled services, IT education, electronics and hardware manufacturing and exports, microelectronics, silicon facilities, e-commerce and Internet- based enterprises. An Advisory Committee for MIT has been formed to identify thrust / emerging technology areas and suggest measures and policies for proper growth of the sector. A select Group comprising successful and well known IT professionals based in Silicon Valley, USA, was formed under the Chairmanship of Minister (IT) to advise Government on issues relating to development of IT, telecommunication infrastructure and software export.

9. Government has taken up an ambitious project for setting up of Community Information Centres (CICs) in 486 blocks in the North-East and Sikkim at an estimated cost of Rs. 220 crores. It will provide connectivity at the block level and will be completed within 2 years. VSATs are being used to provide Internet connectivity under the scheme. The Centres will be managed with the assistance of Central Government for five years and after that State Governments are expected to take them over.

10. A Rs 100-crore Information Technology Venture Capital Fund (VCF) has been set up, in collaboration with Small Industries Development Bank of India (SIDBI)/ Financial Institutions (FIs)/ Industry to provide capital and guidance to start- up professionals and IT units in small scale sector. The VCF launched in December 1999 is expected also to promote R&D and innovations in software development.

11. An upgradation of the Education & Research Network (ERNET) has been approved by the Government at a cost of Rs. 196.20 crore, and would be completed in the Ninth Plan; under it, the network will be further upgraded in terms of quality and speed. ERNET is being connected through high speed links and will be used for imparting distance education. All 217 Universities and Regional Engineering Colleges will be connected on the new high speed backbone of 8/2 Mbps bandwidth.

12. Measures are under way to facilitate growth of e-commerce, electronic communication through Internet and accelerated induction of IT in critical sectors of the

economy. For this purpose, an "Information Technology (IT) Act 2000" has been approved by the Government. It seeks to provide legal framework for recognition of electronic contracts and prevention of computer crimes. It will pave way for electronic filing/documents and will legalise digital signature. Amendments carried out in the Indian Evidence Act, Indian Penal Code, Bankers Books Evidence Act and RBI Act through the IT Act will serve the basis for carrying out amendments in the Registration Act, Negotiable Instrument Act, Consumer Protection Act and Formulation of Electronic Fund Transfer Act. The IT ACT has some pending issues as detailed in the following box:

BOX No. II

INFORMATION TECHNOLOGY ACT 2000- SOME PENDING ISSUES

- The Act seeks to amend only the Criminal Law and Law of Evidence, whereas, amendments may be necessary to the Law of Contracts and Transfer of Property. The Registration Act and the Stamp Act also need to be taken note of.
- There is no provision for consumer redress in case of fraud committed through e-commerce.
- There should be a foolproof system for dispatch, receipt and acknowledgement of receipt of electronic records.
- The Law does not envisage difficulties arising out of Electronic fund transfer. The issue of jurisdiction of Courts have not been addressed.
- The issue of privacy, viruses, hacking etc. need to be dealt in more exhaustive manner.
- Certain categories like power of Attorney, Trust, Will and Contract For Sale have been excluded from the IT Law, this may put limitation on growth of e-commerce, e-banking and e-governance.

13. Many countries have enacted similar Information Technology Acts in the last two years and these laws still have to pass through the test. Various issues which may arise during implementation of the above Act will be studied and addressed suitably.

14. A Centre of Excellence for e-commerce has been set up at CMC Ltd., Hyderabad, with the objective of providing: consultancy in the area of e-commerce covering security of server, network, web and transaction; auditing of e-commerce, procedure manual on e-commerce; development of e-commerce in Indian context and prototypes for users like Indian Railways, Electricity Boards, Road Transport Corporations etc. Besides, the Centre will provide training in the area of e-commerce and will also undertake R&D.

15. Government has initiated institutional mechanism to facilitate initiatives towards greater utilisation of IT as an enabling tool for efficiency and effectiveness in Government and public utility services. Three pilot projects in the area of electronic governance have been initiated in association with Government of Andhra Pradesh. Experience of these pilot projects could be used by other states for replication. A Centre for E-Governance has been set up at MIT headquarters to showcase existing tools and applications in e-governance. The Centre would also help to identify / develop various applications of immediate concern to Central Ministries/ Departments and the State Governments.

16. All critical sectors of the economy were made Y2K compliant.The roll- over to the year 2000 was smooth and no major incidents were reported.

17. India has achieved capability of designing and building supercomputers using massively parallel processing technology. The Centre for Development of Advanced Computing (C-DAC) has released its latest model-the PARAM 10000 - having a peak computing power in excess of 100,000 million floating point operations per second (MFLOPS) with an architecture scalable to 1 terra floating point operation per second (TFLOP). C-DAC has initiated a national project for the proliferation of the PARAM high-performance computers, under which a configuration of the PARAM 10000 along with software and training, will be supplied to 12 premier academic institutions around the country. In order to commercialize PARAM Supercomputers, 40 machines have been installed in various institutions in the country and five have been exported.

18. To promote information processing in Indian languages a project has been taken up at 13 Educational and R&D Institutions spread across the country. The objective is to increase IT penetration in the society, improve the quality of life of people of India by enabling IT use through Indian Languages, development of new products and services in Indian Languages and promote content creation (on web sites) efforts in Indian Languages for better dissemination of information among the Indian masses, apart from facilitating research in technology intensive areas of Language Engineering.

19. Internet Service Providers (ISP) have been permitted to set up international gateways and hire bandwidth on foreign satellites. This will enable increased availability of Internet bandwidth and facilitate Internet expansion in the country. The growth and projections of Internet users in India are as under:

BOX No. III

MAJOR INITIATIVES IN IT SECTOR

- Setting up of a new Ministry of Information Technology.
- Setting up of Community Information Centres (CICs) in 486 blocks in the North-East and Sikkim for socio-economic development of North Eastern states.
- Information Technology Venture Capital Fund set up with a provision of Rs. 100 crore for triggering the growth of IT Industry.
- Upgradation of Education & Research Network (ERNET) by connecting all the Universities and Regional Engineering Colleges through high speed network.
- All major sectors of the economy were made Y2K compliant.
- Development of PARAM supercomputer having 100 giga floating point operation per second (GFLOP) peak computing power by C-DAC.
- Growth of software exports over 55 % and expanding new markets in European countries.
- Setting up of Indian Institutes of Information Technology (IIITs) by various State Governments. IIITs at Allahabad, Gwalior, Hyderabad and Bangalore have been set up.
- Information Technology (IT) Law has been approved to cater to the legal requirements of Internet and e-commerce.
- Setting up of Centre of Excellence for e-commerce at CMC Ltd., Hyderabad.
- Government allowed 100 per cent Foreign Direct Investment in e-commerce and decided not to tax such transactions

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	Internet Connections (million)	Internet Users (million)
31.3.1997	0.09	0.45
31.3.1998	0.14	0.70
31.3.1999	0.28	1.40
31.3.2000	0.77	2.80
July, 2000	1.60	5.00
31.3.2002 (estimated)	3.50	10.00

20. Availability of trained manpower is the most vital input for growth of IT industry and achieving Ninth Plan targets, especially in software exports. The Government has been supporting a number of institutions by way of providing hardware and software. A scheme Special Manpower Development for Software Export has been launched at National Centre for Software Technology, Mumbai. In addition to existing engineering colleges / private sector efforts in HRD (Human Resource Development) activities, Government institutions like Centre for Electronics Design & Technology (CEDT), Centre for Development of Advanced Computing (C-DAC), Electronics Research & Development Centres (ERDCs), STQC (Standardisation, Testing & Quality Control) Labs and DOEACC (Department of Electronics Accreditation of Computer Courses) Society are making a significant contribution in generating trained manpower. Though DOEACC scheme is in operation since 1991, its "B" and "C" level courses which are of Graduate and Post graduate levels are yet to be recognised formally by Ministry of HRD. The number of registered students for various levels of courses under DOEACC scheme as on January, 2000 was 2,16,457.

21. In addition, MIT is implementing a Sustainability Support Scheme (SSS) for quality upgradation of the learning environment to produce high quality engineering graduates and diploma holders at 25 select institutions (14 engineering colleges and 11 polytechnics) in the country. The Government has been taking initiatives for promotion Internet-based education aimed at meeting high quality IT manpower requirement of Software Export Industry to meet the export target. These initiatives are I) Virtual Campus Initiative of IGNOU – One year PG Diploma in IT, ii) Centralized Web Site for Internet-Based Online Interactive Courseware and Courses – IIT Delhi, iii) Internet-Based Online Interactive Information Services over Internet and Hybrid Network – IIT Kanpur, iv) Design and Development of Multimedia-Based Courseware – BITS, Pilani, and v) National Resource Centre for online learning at NCST, Mumbai.

22. National Informatics Centre (NIC) has established NICNET facilities in all Central Government Departments, 32 States/UTs and in about 540 District Centres to facilitate information development for decision support and information exchange. In 1999-2000 NIC further upgraded the quality of NICNET based computer services. Internet services were extended to districts. About 380 high speed VSATs were installed in the districts and the transponder capacity was increased to handle increased network load. The updgradation programme for remaining districts is in progress. One-way Videobroadcast was tested at 380

districts, which is useful for distance training. Video conferencing facility was made operational at the Secretariat of Assam, Manipur, Tripura and Mizoram. Some of the major programmes being pursued by NIC are; NICNET based land records computerisation, implementation of Grass Roots Input to Districts (GRID), extension of NICNET services to newly created districts in the country, expansion of video-conferencing network, Modelling Graphics & Design Programme, Treasury Accounting Project, and implementation of Court Information System Programme for High Courts and District Courts and Bibliographic Information System. . NIC has also prepared a Five Year IT Plan for various Ministries and developed web sites of Government departments. The entire network of NIC was made fully Y2K complaint.

23. The Semiconductor Complex Ltd. Mohali, which has been rebuilt after its facilities were destroyed in a fire in 1989, started commercial production of Very Large Scale Integrated chips in October, 1997. The Government has decided to look for suitable Joint Venture Partner(s) to upgrade the technology as well as improve viability of the project in view of large scale import of chips. There has been hardly any progress in this regard; this needs to be pursued seriously.

E-Commerce - Prospects

24. The e-commerce can emerge as a major opportunity for India. The growth of e-commerce business transaction during the Ninth Plan period is as under:

Year	e-commerce business (Rs. crore)
1998-1999	131
1999-2000	450
2000-2001 (Anticipated)	3,500
2000-2002 (Anticipated)	15,000

25. The Government has also approved 100 per cent foreign direct investment in e-commerce and decided not to tax such transactions to promote Internet based business. With improvement in telecom infrastructure, proper regulatory framework, increase in PC penetration and spread of Internet, the industry is hopeful of fast growth of e-commerce as projected. The real emerging opportunity for India is to provide software solutions and services in e-Business.

Comparative Position of India in IT

26. India is second in the world (next to US) in terms of the largest scientific-English speaking professional manpower. It also has a growing bank of 4.1 million technical workers, produced , among others, by over 1,832 educational institutions and polytechnics, which train more than 75,000 computer software professionals every year. Computer and software engineering graduates pass out from Indian Institutes of Technology, Indian Institute of Science and various deemed universities; training in all these institutions is comparable with world standards. However, for various reasons like poor laboratory infrastructure, shortage of faculty and books, the quality of technical education at a large number of other institutions both in government and private sector are not up to the desired level.

27. In 1999, a consultancy study by Mc-Kinsey (commissioned by NASSCOM) projected that the size of India's IT business would by 2008 swell to an annual revenue of $ 87 billion (currently $4billion), and out of this, $50 billion would come from software exports. The report also estimated that Indian IT sector would account for 35 per cent of the country's total exports, an annual foreign direct investment of about $5 billion and contribution of over 7.5 per cent of Gross Domestic Product (GDP) by the same period. Besides, the report also projected that India's IT sector will require 2.2 million globally competitive professionals and roughly 1 million Indians would be employed in various IT related industries, and they would be generating an annual revenue of Rs. 81,000 crore.

28. The Indian software industry has already established its recognition in providing high quality IT solutions to the world. The capability of Indian Software industry is reflected in the very high market capitalization. The Government is supplementing the industry efforts by providing right policy environment and infrastructure for its growth. The availability of high speed data-communication for software has been greatly enhanced through 12 earth-stations set up under the Ministry's Software Technology Park scheme.

29. IT-enabled services like back- office operation, data entry jobs, medical transcription, insurance claim processing and content development have a large employment potential. As on December 1999, these services employed 41,000 people who generated US$ 460 million. It has been projected that IT-enabled services will be able to provide employment to about 11 million people generating US$ 17-18 Billion by the year 2008.

Telecom Network and Availability of Bandwidth:

30. For the growth of IT industry and IT enabled services it is of utmost importance that a proper telecommunication infrastructure is put in place speedily. It is also necessary to have broadband capability of transmission of data and voice so that utilisation of the

international bandwidth is possible in properly matched system. In order to get full benefits of infotech revolution, e-commerce, e-governance adequate connectivity, accessibility and bandwidth are the key drivers. (issues of telecommunication infrastructure has been covered separately under chapter on Telecommunication)..

Issues and Action Points

31. Although significant developments have taken place in the IT sector, action on a number of points actions is required to be taken. They are summarised below:

- Second and Third Reports of the National IT Task Force on " Development, Manufacture and Export of Information Technology Hardware" and "Long Term National IT Policy" should be examined in the present context and implemented for a acelerated growth of hardware industry which is stagnating for the last 5/6 years.
- Large scale applications of IT by State Governments in Public Utility Services i.e. promotion of e-governance.
- Encouragement of IT development in Indian Languages so as to increase degree of Pc penetration and IT awareness in the society.
- Promotion of Internet infrastructure in the country including providing at least 300 GB of Intemet bandwidth by 2005.
- Proliferation of Distance Education through Internet.
- Involvement of private sector in IT Education.
- Upgradation of Regional Engineering Colleges to the level of IITs and opening more IITs and IIITs. Training facilities in other private and government engineering institutions also need to be suitably augmented for generating quality manpower.
- Rapid implementation of Cyber Laws.
- Coordination of all round development of IT thereby leading to formation of a knowledge-based society and removing regional imbalances.

CHAPTER 28

INFORMATION AND BROADCASTING

Background

The activities of Information and Broadcasting (I&B) Ministry cover three sectors viz., Broadcasting (DD and AIR), Information and Films and the functions of each complement the other. Each of these sectors operates through specialized media units. It caters to the needs of information, education and entertainment of all sections of the society through mass communication media like Radio, Television, Films, Publication, Advertisement and traditional modes like Dance and Drama. The I&B sector keeps people informed about the role of Government in social services, developmental schemes and encourage people's participation.

2. The broadcasting and information dissemination scenario in the country has witnessed dramatic changes in 1990s. Besides fast advances in Information, Telecommunication and Media technology, the decade of '90s is marked by an unprecedented reach, competition and convergence of technologies. The position of Doordarshan as a monopoly broadcaster has been eroded with the emergence of more than 30 private telecast channels that are now available in the country through cable networks. This has resulted in some shift in viewership to private channels which offer glossy programmes and treat viewers to glamour and consumerism. Pioneering family serials made by Doordarshan have almost been forgotten as the viewer is now presented with an over-choice of film based programmes and soap serials. Even hardcore news presentation by private channels has attracted a large viewership affecting Doordarshan. However, DD still continues to command the largest share of audience as compared to individual private channels. The objectives of the Ninth Plan were formulated taking into account the changing scenario yet the responsibilities of the public broadcaster, whose job is to 'inform, educate and entertain', continued to be reflected in the thrust areas and the strategy adopted for the sector. The following sector-specific thrust areas and strategies were adopted for the Ninth Plan:

3. For AIR, the thrust areas are augmentation of the programme content, enhancement of technical features and quality of broadcast, wider choice of programme channels, renewal of old and obsolete equipment and addition of new facilities at radio stations enabling better programming and transmission.

4. Similarly, the thrust areas identified for Doordarshan are: upgradation and modernisation particularly in the field of news gathering, up-linking and post- production work to improve signal quality, expansion of network to areas like North-East, J & K and some tribal / hill / border areas where private broadcasters may not easily venture, and introduction of digital terrestrial transmitters at major kendras and expansion of digital satellite channels and digital studio production.

5. Some of the sub-sectors of Information sector — PIB (Press Information Bureau), DAVP, (Directorate of Advertisement & Visual Publicity), Publication Division, Directorate of Field Publicity and Song and Drama Division – are to have a greater thrust and take on activities such as technological upgradation of communication equipment, increasing coverage and modernisation of programme designing. These activities have received priority in the Ninth Plan.

6. The broad strategies adopted for various media units under Film sector seek to augment and modernize equipment base and create infrastructure facilities and provide for scientific preservation of films of great value, production, distribution and exhibition of meaningful films, organization of film festivals, encouragement of film society movement and assistance in production and exhibition of films for children.

Financial Outlays and Physical Targets

7. The Ninth Plan lays special emphasis not only on consolidation of existing facilities and infrastructure of broadcasting sector through modernisation and replacement of hardware and improving software content but also on making both AIR and Doordarshan more competitive. A target of adding 28 broadcasting centers, 10 community Radio Centres, 65 transmitters and 3 studios is envisaged for AIR during the Ninth Plan. The target for Doordarshan is 26 studios, 80 High-powered Transmitters and 422 Low / very low-powered Transmitters. An outlay of Rs 2,567.05 crore — consisting of a budgetary support of Rs 449.55 crores and an IEBR (internal and extra budgetary resource) of Rs 2,117.50 crore – is earmarked in the Plan for the Broadcasting sector. The Broadcasting sector takes more than 90% share in the total Plan outlay while outlays of Rs 93.30 crore and Rs 182.70 crore go to Information and Film sectors respectively. Sector-wise approved outlay and Actual expenditure for first two years of the Plan can be seen at Annexure-I & Annexure-II.

Achievements :

8. During first two years of the Ninth Plan the performance of the Broadcasting sector remained below

expectations both in terms of fund utilization and achieving physical Targets. The IEBR performance of both AIR and Doordarshan were below targets; so was the implementation of Plan schemes. The utilisation of Plan funds in the Information & Broadcasting sector was 78.1%, 64.9% and 98.4% (estimated) in 1997-98, 1998-99 and 1999-2000 respectively. In terms of physical targets, AIR could set up 42% of targeted number of Broadcasting centers, 38% of Community Radio Centres and 88% of transmitters. Doordarshan set up 50% of targeted number studios, 40% of HPT and 95% of LPT/VLPTs (Annex-III). Frequent revision of plan priorities, delays in acquisition of land, inadequate manpower and law and order problem in some of the violence prone areas of J & K and North-East have been cited as the reasons for the shortfall in physical and financial targets. Concerted efforts are needed to overcome these problems so that there is no further slippage.

9. The I & B Ministry has stated that a perspective plan is being drawn up for the broadcasting sector to meet the challenges of competition from new and converging technologies in the field of broadcasting communication and information technologies.

New Measures

- Indian satellite channels allowed to uplink from India through VSNL;
- Fully Indian-owned companies allowed to set up 108 private FM Radio Stations in 40 cities on licence fee basis;
- Approval of Rs 430 crore special package for substantial upgradation of AIR/DD services in J&K State;
- Industry status accorded to the Film Industry;
- Unfreezing of the newspaper titles registered under the Publication and Registration of Books Act;
- Doordarshan is likely to introduce digital transmitters shortly, one each at Delhi, Mumbai, Calcutta and Chennai and it is planning simultaneous telecasting of both analogue and digital mode for some more time before complete switch-over to digital transmitters.

10. It is noteworthy that during the decade both DD and AIR have made substantial progress in terms of geographical and population coverage. In case of DD, signals emanating from over 1000 terrestrial transmitters can reach 88% of the population and has emerged as one of the largest terrestrial network in the world with 362 million viewers. It has established a 3-tier primary programme service – National, Regional and Local. DD network has expanded its telecasting hours and added a number of new channels like Sports, 24-hour news and current affairs and education channel in the recent past. AIR has emerged as one of the largest media organisations in the world with 195 broadcasting centres covering 97% of the population spread over 90% of the geographical area. It provides news, music, spoken word and other programmes in 24 languages and 146 dialects. AIR is also available on the Internet.

Critical Areas and Issues :

11. In a fast changing scenario, the mid-term appraisal provides an opportunity to reassess strategies and make mid-course corrections. In the context of the emerging scenario, the following issues have emerged.

Broadcasting Sector

12. The two mammoth broadcasting organizations namely the All India Radio and Doordarshan have been brought under a new autonomous body corporate, namely Prasar Bharati. It is estimated that the Prasar Bharati incurs an expenditure of Rs 1,400 crore –Rs 1,600 crore annually on its Plan and Non-Plan heads. The Eighth and Ninth Plan budgetary support has been pegged at 20%-25% and the rest of the outlay has to come through IEBR. Due to a variety of reasons, the DD viewership and commercial revenue have shown a declining trend making for an annual yield about Rs 400 crore –Rs 430 crore. The widening gap between required outlay and actual IEBR component may pose serious financial problem in implementation of Plan projects. Serious efforts are needed to improve the revenues of Prasar Bharati.

13. The role of the AIR and DD as public service broadcasters makes extra demands on their financial and human resources which are not encountered by private channels. While there should be greater stress on marketing and on better performance of IEBR, the funding for special requirements which involve activities like expansion of terrestrial coverage to border areas and strategic locations should be provided through budgetary support. This should taper off in a phased manner, linked to a well thought out action plan with milestones.

14. One of the reasons cited for low utilization of funds and physical performance is delay in approving schemes and changes effected in plan priorities. This again points to the need for preparing a road map and greater delegation of power to Prasar Bharati. It is also felt that instead of injecting small amounts of money over a spread of 5 years for various projects, selective schemes should be funded fully to avoid time and cost overruns.

15. Ministry of I & B is proposing to enact a Broadcasting law and amend the Cable Act of 1995. In this context, it may be mentioned that DOT is planning an overhaul of the Indian Telegraph Act, 1883, and there

is likely to be overlap among the three proposed sets of laws. High level committees are at work in this area.

16. Improving the broadcasting services in the North-Eastern Region needs special emphasis and the Ministry should set up a task force in this regard. The region has special problems of terrain and reach.

Information Sector

17. The various media units in the Information sector have continued with strengthening and modernisation efforts in their fields of activities. Directorate of Field Publicity (DFP) has planned to open new field publicity units and purchase of Films / Cassettes/video projectors. It has also planned computerization of regional offices. Targets for the first year of the Ninth Plan were realized while 1998-99 saw an under-performance. There are 268 Field Publicity Units which are engaged in basic publicity coverage in rural areas. The Publications Division in first two years of the Ninth Plan achieved the targets set for upgradation of Desk Top Publishing and other modernisation activities. As a part of its principal activity of keeping the media informed about various activities and achievements, the PIB issued 25948 and 26137 press releases during first two years of the Plan. With regard to DAVP the Directorate achieved the physical targets set for 1997-98 and 1998-99.

18. Media units in the Information sector have played important role. Many of these units were started during the First Plan in a scenario of low media development in the country. Since then the production standards and reach of media in the private sector in the case of books, publications, advertisement and films have reached international levels. The role and relevance of many of the official media units need to be re-examined in the context of changes that have taken place. The Ministry has reportedly asked the National Productivity Council to carry out a study for restructuring DAVP. Similar exercises should be undertaken for other media units as well.

Film Sector :

19. India is the largest producer of films in the world. Almost the entire feature film production is in the hands of the private sector which, enormous as it is in size, is unorganized in the matter of financing and marketing. Government's role in respect of films has been largely one of censorship or certification for public viewing, giving awards and for facilitating raw stocks. The Films Division functions as a public sector agency producing documentary films and newsreels, a role which was important in the past. With the emergence of television as a highly powerful household medium, the importance of documentary films made by the Films Division seems to have gradually declined. However, the Ministry has stated that the Supreme Court has upheld mandatory screening of newsreels and documentaries of Film Division and it is expected that regular screening will be restored.

20. The Ministry- appointed Shyam Benegal Committee (1997) recommended that the Film Division be turned into an autonomous society but the proposal has not been accepted by the Government. There is some duplication of work between the Film Division and Doordarshan on making documentaries, although on different hardware. There is need to have a fresh look at the functions and configuration of the Films Division. Also, the work of organizing Film Festivals and National Film Awards can be entrusted to a professional organization like NFDC which is already in the business of Film financing, creates a good cinema movement in the country and also handles the import and export of feature films.

Miscellaneous

21. It has been observed that a number of spill-over schemes from Eighth Plan have been taken into the Ninth Plan period. This implies inordinate delay in the completion of projects resulting in cost and time-overruns.

22. Considerable amount of fund has been found unutilized during first two years of the Ninth Plan. The Ministry has cited the declining commercial earnings of Prasar Bharati as the main reason for this. However, all efforts should be made by the Ministry to ensure timely implementation of schemes and optimal utilisation of plan resources.

23. The Plan document mentions that two major issues facing the Information and Broadcasting sector in the Ninth Plan are the use of Airwaves and the status of the Prasar Bharati. Actions is required on the part of the Ministry to clear the prevailing uncertainty on these two vital issues. In the absence of a clear cut and stable status, Prasar Bharati may not be in a position to deliver its best.

24. The Ministry needs to take special care for speedy implementation of its J & K package. Alongside, similar packages should be worked out for North-East and Hill / Tribal areas. The Ministry should also lay down guidelines to ensure that allocated funds are fully utilized by the different media units.

25. The FM Broadcasting sector has been opened up to private operators. Similar initiative should be taken by the Prasar Bharati to examine the feasibility of opening up Doordarshan by leasing out terrestrial equipment facility to the private operators so that rural viewers have a better choice of channels.

26. Prasar Bharati should also make effort to digitalise the archival materials of Doordarshan and AIR.

Annexure-I

Ministry of Information and Broadcasting
Financial Details for the Ninth Plan (1997-2002) And Annual Plan (1997-98, 1998-99 And 1999-2000)

(Rs. in Crore)

Sl. No.	Media Unit	9th Plan Outlay (1997-2002)	Approved Outlay (1997-98)	Actuals (1997-98)	Approved Outlay (1998-99)	Expenditure upto March 99	Approved Outlay 1999-2000
I	**INFORMATION SECTOR**						
1	DBS	93.30	19.00	12.51	18.52	14.20	17.50
2	IEBR	0.00	0.00	0.00	1.03	0.50	1.76
3	**TOTAL**	**93.30**	**19.00**	**12.51**	**19.55**	**14.70**	**19.26**
II	**FILMS SECTOR**						
1	DBS	137.20	33.80	28.99	34.28	21.97	30.50
2	IEBR	45.50	8.20	8.23	8.70	4.71	6.10
3	TOTAL	182.70	42.00	37.22	42.98	26.68	36.60
	TOTAL(I&II)						
1	DBS	230.50	52.80	41.50	52.80	36.17	48.00
2	IEBR	45.50	8.20	8.23	9.73	5.21	7.86
	TOTAL	**276.00**	**61.00**	**49.73**	**62.53**	**41.38**	**55.86**
III	**BROADCASTING SECTOR**						
1	PB (AIR)	805.40	143.20	88.24	150.00	81.25	122.00
	IEBR	544.40	95.00	63.73	101.80	73.86	76.80
2	PB (DD)	1761.65	415.60	346.39	449.40	308.09	391.52
	IEBR	1573.10	389.00	328.26	422.80	272.28	339.72
	TOTAL	2567.05	558.80	434.63	599.40	389.34	513.52
	DBS	449.55	74.80	42.64	74.80	43.20	97.00
	IEBR	2117.50	484.00	391.99	524.60	346.14	416.52
	GRAND TOTAL (I&B)						
1	DBS	680.05	127.60	84.15	127.60	79.37	145.00
2	IEBR	2163.00	492.20	400.21	534.33	351.35	424.38
3	**TOTAL**	**2843.05**	**619.80**	**484.36**	**661.93**	**430.72**	**569.38**

Source : Media Units

DBS Direct Budgetary Support

IEBR Internal and Extra Budgetary Resources

Annexure -II

THE NINTH PLAN OUTLAY FOR THE INFORMATION AND BROADCASTING MINISTRY
The progress of Outlay and Expenditure (1997-2002)

(Rs.in Crore)

Scheme	9th Plan outlay	1997-98 outlay	1997-98 Actual Exp. const. Price	1997-98 Actual Exp. current Price	1998-99 outlay	1998-99 Actual Exp. const Price	1998-99 Actual Exp. current Price	1999-2000 outlay	1999-2000 Actual Exp. const. Price	1999-2000 Actual Exp. current Price	1997-2000 outlay	1997-2000 Actual Exp. const. Price	1997-2000 Actual Exp. current Price	2000-02 Balance const. Price	2000-02 Balance current Price
Broadcasting Sector															
(a) AIR	805.40	143.20	83.53	88.24	150.00	70.72	81.25	122.00	102.00	122.00	415.20	256.26	290.03	549.15	515.37
(b) Doordarshan	1761.65	415.60	327.90	346.39	449.40	273.33	308.09	391.52	327.37	391.52	1256.52	928.60	1046.31	833.06	715.34
I Total	2567.05	558.80	411.43	434.63	599.40	344.05	389.34	513.52	429.37	513.52	1671.72	1184.86	1336.34	1382.21	1230.71
II Information sector	93.30	19.00	11.84	12.51	19.55	13.08	14.70	19.26	16.10	19.26	57.81	41.02	46.47	52.28	46.83
III Films sector	182.70	42.00	35.23	37.22	42.98	23.64	26.68	36.60	30.60	36.60	121.58	89.47	100.50	93.23	82.20
Grand Total	**2843.05**	**619.80**	**458.50**	**484.36**	**661.93**	**380.77**	**430.72**	**569.38**	**476.07**	**569.38**	**1851.11**	**1315.35**	**1483.31**	**1527.72**	**1359.74**
%age to 9th Plan outlay	100.00	21.80	16.13	17.04	23.28	13.39	15.11	20.03	16.75	20.03	64.94	46.27	52.17	53.73	47.83
Broadcasting		21.77	16.03	16.93	23.35	13.40	15.12	20.00	16.73	20.00	65.12	46.16	52.06	53.84	47.94
Information		20.36	12.69	13.41	20.95	14.02	15.76	20.64	17.26	20.64	61.96	43.96	49.80	56.03	50.19
Films	–	22.99	19.28	20.37	23.52	12.94	14.60		16.75	20.03	63.93	48.97	55.01	51.03	44.99

Annexure-III

Physical Targets/Achievements of Broadcasting Sector during 1997-98, 1998-99 and 1999-2000

Broadcasting	Item	Ninth Plan Target	Annual Plan 1997-98		Annual Plan 1998-99		Annual Plan 1999-2000 Projected
			T	A	T	A	Target
	1. Broadcasting Centres	28	7	4	5	1	7
A. AIR	2. Community Radio Centres	10	10	2	3	3	5
	3. Transmitters	65	9	8	7	6	30
	4. Studio	3	2	–	–	–	4
B. Doordarshan	1. Studio	26*	13	4	13	9	4
	2. HPT	80*	11	6	9	2	22
	3. LPT/VLPT	422*	123	112	94	94	90

* including 23, 14 and 229 continuing schemes from the 8th Plan.

T - Target

A - Achievement

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CHAPTER 29

SCIENCE AND TECHNOLOGY

Introduction

The major objectives and thrust in Science & Technology (S&T) sector during the Ninth Five Year Plan, inter alia, has been on (a) optimum harnessing of S&T for societal benefits, (b) developing R&D programmes on mission mode, (c) nurturing of outstanding scientists by offering them facilities comparable with international standards, (d) attracting young scientists for taking science as a career, (e) establishing linkages between the industry and research institutions/ laboratories for development and market technology, (f) developing clean and eco friendly technologies, (g) generating maximum resources for R&D from production and service sector, and (h) creating awareness on technology marketing and intellectual property rights issues. Emphasis has also been laid on science, technology and education including promotion of basic research and excellence, S&T communication and popularisation of science, promotion of international science and technology cooperation.

2. In relation to the Ninth Plan thrust outlined above, there has been significant progress in various areas. Efforts have been continued to maintain a strong science base and develop technological competence. In order to strengthen technological capabilities of the Indian industries, both for meeting the national needs and for proving global competitiveness, a number of new initiatives have been launched through *Programme Aimed at Technology Self Reliance (PATSER)*, Technology Development Board (TDB) and Home Grown Technologies. Individual innovators are also being supported under new Technopreneur Promotion Programme (TePP). Efforts have been made for: strengthening R&D activities through creation of new research facilities, introduction of the concept of basic research missions; attracting young scientists by awarding fellowships; strengthening S&T infrastructure in universities and academic institutions; promotion of indigenous technology using Science and Technolgy Advisory Committee (STAC) of the various socio-economic sectors and Inter-Sectoral Science and Technology Advisory Committee (IS-STAC) mechanism of the Department of Science and Technology (DST). A number of science and society-related programmes have been implemented to demonstrate the application of S&T for improving the quality of life by creating productive jobs, reducing drudgery, improving health and environment in the areas of black-smithy, carp breed hatchery, low cost preservation and processing of horticulture products, food irradiation, application of radio isotope and laser for the diagnosis and treatment of various diseases, use of PFZ maps for fishing activities. Jai Vigyan Mission Mode S&T Projects have been launched in the areas of plant genetic resource conservation, development of new generation vaccines, biotechnological approaches towards herbal product development, genomic research, development of light transport aircraft and ocean thermal energy conservation. Significant achievements have been made in the area of space, nuclear, biotechnology, ocean sciences and scientific and industrial research.

3. Concerted efforts have been made to promote frontier areas of science and technology and also strengthen various infrastructure facilities through well defined programmes in various disciplines of S&T. Efforts have been made to ensure greater inter action among the scientific community and establishment of linkages among national laboratories, academic institutions and industries.

Major thrust and objectives are on :

- Optimum harnessing of S&T for societal benefits.
- R&D programmmes on mission mode.
- Nurturing of outstanding scientists by offering them facilities comparable with international standard.
- To attract young scientists for taking science as a career.
- Establish linkages between the industry and research institutions/ laboratories for development and market technology.
- Development of clean and eco friendly technologies.
- Generation of maximum resources for R&D from the production and service sector.
- Creation of awareness on technology marketing and intellectural property rights issues.

4. In order to attract young scientists, several incentives have been introduced which include launching of Swarnajyanti Fellowship under which research support is provided to outstanding young scientists ; Kishore Vigyanik Protsahan Yojana under which 50 students of 10+ standard selected through all India competition are provided financial support for taking up specific projects in various discipline of science ; CSIR Programme for Youth Leadership in Science (CPYLS) in which top 50 students at 10th class level of each State Education Board would be invited at CSIR (Council of Scientific & Industrial Research) expense to visit its laboratories to experience the excitement in R&D . Also, young scientists are encouraged to take up science as a career through the

on-going programme Better Opportunities for Young Scientists in Chosen Area of Science and Technology(BOYSCAST) Fellowship for working in laboratories abroad. In the area of biotechnology, Special National Bioscience Awards for career development of scientists and Outstanding Women Bio-scientist Awards have been instituted.

5. A major programme Fund for Improvement of S&T Infrastructure in universities and related institutions (FIST) has been initiated to augment and strengthen the infrastructure facilities for post graduation education and research.

6. To achieve the objective of integration of science and technology in the socio economic sector and promote S&T activities for the societal benefit, 24 socio economic ministries have set up Science and Technology Advisory Committees (STAC) for supporting science and technology programmes in the respective sector. An Inter-Sector S&T Advisory Committee (IS-STAC) functioning under the Science & Technology is actively promoting multi-partnership effort in close collaboration with the STACs and several technology transfer and technology fall-outs have taken place. In the areas of Technology Development Programmes, efforts are continued to develop joint R&D projects with industry and other user agencies in the areas of instrument development, various areas of home grown technologies and Programme Aimed at Technological Self Reliance (PATSER) of Department of Scientific and Industrial Research (DSIR). These are in addition to efforts made by Technology Development & Application Board for promoting indigenous technology to the level of commercialisation through participation of industries. A new golden jubilee initiative called "Technopreneur Promotion Programme (TePP)" has been initiated to tap the best potential of Indian innovators. Several technology mission mode programmes have been pursued in the areas of sugar technologies, advance composites, fly ash utilization, bio-fertiliser, bio-pesticides , aqua-culture etc. In addition, the launching of Jai Vigyan Mission Mode S&T Projects in various disciplines is another step towards implementation of time bound technology development programmes.

7. Several science and society related programmes were evolved and implemented for improving the quality of life by creating productive jobs, reducing drudgery, improving health and environment. These include programmes on artisan blacksmithy; common carp breeding hatchery; low cost processing and preservation of horticulture product; cultivation and processing of high value medicinal plants, floriculture and mushroom culture, setting up of women technology parks for dissemination and generation of technology relevant to women, core support to S&T field group for demonstration of S&T at the field level, radiation processing of food technology, application of radio isotope for disease control, industrial and medical laser, generation of action plan of various districts using space technology under Integrated Mission for Sustainable Development, application of remote sensing for management of natural resources, satellite based inter active network for rural development, use of Potential Fishing Zone (PFZ) maps for fishing activities, shore to vessel communication facilities etc. Proven biotechnologies have been used to improve living conditions of the rural population with particular focus on SC/ST population and women.

8. A massive programme on creation of awareness on intellectual property rights (IPR) and diverse aspects of patents have been initiated through the Patent Facilitating Cell set up by the Department of Biotechnology and Department of Science & Technology to provide support for patent search services, generation of data base in CD ROMs and also establishment of seven patent information centres in different States to create patent awareness and provide patent information and facilitating filing of patent applications. Greater thrust has been made on manipulation and management of Intellectual Property Rights (IPR) for corporate advantage.

9. Internationally, India has S&T cooperation with 50 countries in select areas of mutual interest to facilitate interaction in scientific research, develop advance technologies and take mutual advantage of complementary scientific and technological capabilities among participating countries.

10. The funding of the S&T programmes remains mainly through the budgetary support by the Scientific Departments/Agencies of the Central Government. The financial contribution of the industry sector in R&D is about 28% of total R&D expenditure

11. Review and appraisal of the progress made by some of the major sectoral agencies towards achieving the objectives and thrust of the Ninth Five Year Plan are briefly indicated below :

Space Science & Technology

12. The thrust of Space Science & Technology programmes has been on the development of satellite-based communication for various applications, satellite-based resources survey and management and environmental monitoring, meteorological applications, development and operationalisation of indigenous satellite, launch vehicle and associated ground segment for providing these space- based services.

Several initiatives have been taken to achieve the S&T's objective and thrust. These include :

- Strenthining of R&D activities through creation of new research facilities, introduction of concept of basic research missions, enhancement of fellowships etc.
- Attracting young Scientist by awarding Swarnajayanti Fellowship for research, BOYSCAST Fellowships, Kishore Vigyanik Protsahan Yojana, National Bioresource Awards and Promote Youth Leadership in Science for school students.
- Strengtening S&T infrastructure in the universities & academic institutions through FIST programme.
- Promotion of indigenous technology using STAC and IS-STAC machanism and also through the programmes of PATSER, TDB, Homegrown Technologies etc. Individual innovators are also being supported under newly instituted TePP programme.
- Number of science and Society related programmes were implemented to demonstrate application of S&T for improving quality of life by creating productive jobs, reducing drudgery, improving health and environment in the areas of blacksmithy, carp breed hatchery, low cost preservation and processing of horticulture products, food irradiation, application of radio-isotope and laser for the diagnosis and treatment of various diseases, use of PFZ maps for fishing activities etc.
- Creation of awareness on intellectual property rights and diverse aspects of patents.

13. Major achievements include the successful launching of : first operational flight of PSLV-C1 carrying IRS-1D satellite into orbit ; PSLV-C2, the first commercial flight of PSLV, carrying IRS-P4 into orbit in addition to two auxillary foreign satellites, TUBSAT(Germany) and KITSAT (Republic of Korea); and INSAT-2E. The Geosynchronous Satellite Launch Vehicle(GSLV) project has successfully completed the development phase and entered the flight hardware realization phase. Significant progress has been achieved in the indigenous development of Cryogenic Upper Stage Project (CUSP) with the establishment of test facilities and fabrication of engine. The construction of Second Launch Pad at Sriharikota has also started. The IRS-1D was successfully launched in September, 1997 carrying payloads identical to those of IRS-1C. The IRS-1C/1D data have been operationally used in crop area/yield estimates, wasteland mapping, ground water potential, command area management, integrated resource survey, urban management etc. IRS-P4 (OCEANSAT), launched in May 1999 has been used in recording ocean biological parameters and also to estimate a number of geophysical parameters.

14. The INSAT-2E , launched in April 1999, has been carrying both communication and meteorological payloads. Under an agreement with International Telecommunication Satellite Organisation (INTELSAT), 11 C-band transponders on INSAT –2E have been leased to INTELSAT with a lease fee of $10 million per year. There are about 83 transponders in the INSAT system (including the capacity leased to INTELSAT) as on December, 1999 and the number is expected to increase to 119 by the end of Ninth plan against the targeted 135.

Milestones achieved in the Space S&T :

- Successful launch of first operational flight of PSLV-C1 carrying IRS-1D satellite & PSLV-C2 carrying IRS-P4 along with two auxillary foreign satellites viz. TUBSAT(Germany) and KITSAT (Republic of Korea);
- Launch of INSAT-2E and its 11 C-band transponders leased to INTELSAT with a lease fee of $10 million per year
- Jhabua Development Communication Project, successfully completed and the scheme extended to neighbouring districts.
- Integrated Mission for Sustainable Development (IMSD), initiated in 175 districts for generating local specific developmental action plan, extended to 800 watersheds of Koraput-Bolangir-Kalahandi areas of Orissa.
- Network of international ground stations receiving the IRS data expanded to 10 ground stations around the globe and the market share of IRS in global satellite data has gone up to 20 per cent.

15. Under the space application oriented programmes, the Jhabua Development Communication Project (JDCP), a satellite based interactive network for rural development, has been successfully completed and the scheme has been expanded/extended in scope to neighbouring districts. For the distance education and training network system, Training and Development Communication Channel (TDCC) has been extensively used by several agencies and industries and State Governments. The Integrated Mission for Sustainable Development (IMSD) initiated in 175 districts has been extended to 800 watersheds of Orissa. As a part of National Drinking Water Mission, a major project has been taken up for preparation of satellite based hydrogeomorphological mapping for identification of prospective zones for ground water exploration. A comprehensive integrated project for forecasting

agricultural output using space, agrometeorology and land based observations has been initiated in coordination with Department of Agriculture and Cooperaiton. Projects have also been taken up to map wastelands in about 192 districts, biodiversity characterization at landscape level in the Himalayan region, Western Ghats and Andaman Nicobar Islands for bioprospecting of biological wealth. A pilot project on Disaster Management System (DMS) has been implemented in flood prone districts of Assam. A network of 10 international ground stations in USA, Germany, Spain, Dubai, Saudi Arabia, Korea, Japan, Thailand, Alaska and Ecuador have been receiving the IRS data.

16. The INSAT programme has entered the operational phase and providing regular communication services. There is a need to segregate the INSAT progamme from the S&T sector of DOS, and this may be included under the development sector like Communication. Space services should be provided to the users on cost basis so that the INSAT system could be made self sustaining both in terms of fabrication of the satellite and launch services. In the areas of remote sensing, large volume of data information and imageries are being produced and the Department has already initiated several remote sensing application programmes on a pilot basis. While the social relevance of Space technology is well established, there should be greater application of the remote sensing data/information by the development departments for designing, implementing and monitoring various developmental programmes.

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Atomic Energy (R&D Sector)

17. The major R&D thrusts of the Department of Atomic Energy have been on life extension of Pressurized Heavy Water Reactors, design and development of fast breeder reactor; enhancement of thorium utilisation; engineering development of thorium-based advanced heavy water reactor and matching developments in the fuel cycle area; accelerator-based systems and fusion power; technology missions in radiation applications in health, agriculture and food, specially on food preservation, desalination and isotope hydrology; strategic technologies in the areas of special materials, laser, particle accelerators, parallel computers, robotics, cryogenics and special instrumentation; safety and environmental protection; and technology spin-offs to industry.

18. One of the important achievements has been conducting Nuclear tests at the Pokhran range on May 11-13, 1998. The major activities of BARC include: design and development of AHWR; attainment of full power level of 30 KWt by neutron source Kamini reactor; design and construction of 6300 cubic metre per day nuclear desalination plant utilizing both thermal and membrane processes; transfer of technology for radiation processing of food; development of radiation source of treatment of eye cancer; export of high density thoria buttons for monitoring of cooling gas in electric generator; upgradation of technologies for production of uranium compounds, rare earths, nuclear grade thorium; setting up of Lithium Metal Pilot Plant; and technology demonstration of low temperature niobium-titanium multifilament super conducting cables.

Major achievements in Atomic Energy (R&D)

- Nuclear tests that were conducted at the Pokhran range on May 11-13, 1998.
- Initiation of design and development of AHWR.
- The neutron source Kamini reactor attained full power level,
- Technology spin-offs include design and construction of 6300 cubic metre per day nuclear desalination plant.
- Transfer of technology of radiation processing of food, development of a radiation source for treatment of eye cancer; export of high density thoria buttons to General Electric Company, USA for monitoring of cooling gas in electric generator etc.
- Successful operation of the Fast Breeder Test Reactor (FBTR) .
- Setting up a Synchrotron Radiation Source (SRS) facility.

19. The Fast Breeder Test Reactor (FBTR) at Indira Gandhi Centre for Atomic Research (IGCAR) was operated successfully. A programme relating to R&D and engineering development of a 500 MWe Prototype Fast Breeder Reactor (PFBR) has been taken up. The Centre for Advanced Technology (CAT), Indore, has set up a Synchrotron Radiation Source (SRS) facility, Indus-I Other significant achievements include: design and development of beam line instrumentation for using Indus-I, insertion devices, plasma chamber and magnet coils for microwave ion source, development and supply of surgical model of carbon dioxide laser, nitrogen laser for treatment of tuberculosis etc. The Variable Energy Cyclotron Centre (VECC) at Calcutta delivers beams of nuclear particles for research in nuclear physics and nuclear chemisry and produces radioisotopes for various applications. The setting up of super conducting cyclotron made significant progress which includes completion of major steel forging for main magnet frame, ordering of main liquid helium plant, fabrication of a 300 ampere power supply as a prototype etc,. besides initiation of activities on radioactive ion beam facility and advanced computational facility.

20. The research institution under DAE provides R&D back- up for the first stage of nuclear power programme based on Pressurised Heavy Water Reactors particularly design and manufacturing of complex equipment, repair and refurbishment techniques, harnessing the latest advances in information technology for further improvement of control and monetary systems, in–service inspection, fuel development etc. Use of irradiation technology for improving the shelf life of agriculture produce and also application of radioisotopes and lasers in the diagnosis and treatment of various diseases need to be further strengthened for improving the quality of life.

Science and Technology

21. The thrust has been on building and sustaining a strong Science and Technology base in the country, developing centres of excellence in frontline areas of science and technology and modernising infrastructure of its autonomous research institutions. The overall approach has been to promote basic research around outstanding scientific groups and to a large extent in the academic sector by way of research funding, development of manpower and capabilities, creation of infrastructure facilities, implementation of societal programmes, international S&T cooperation and scientific services in the areas of meteorology and mapping.

22. The important technologies developed include: superconducting technology based ore separator and power generator, fish freshness bio- sensor, lactate and cholesterol bio-sensor, multi model imaging and image identification of cancer related diseases, expert systems for diagnosis and monitoring of leprosy, optical fibre based immuno sensor for Kala-zar, etc. A new Golden Jubilee initiative called 'Technopreneur Promotion Programme (TePP) has been initiated to tap the vast potential of Indian innovators.

23. The Patent Facilitating Cell (PFC), set up by the Department to provide support to scientists on all aspects of patenting has facilitated filing of 79 patent applications including nine in foreign countries. PFC has conducted 34 workshops besides publication of IPR bulletin, providing patent search services, generation of data base in CD ROMs and also establishment of 7 Patent Information Centres in various States to create patent awareness and provide patent information and facilitate filing of patent applications. Two women technology parks (for dissemination and generation of technologies relevant to women), in the mountain region and West Coast have been supported besides long term core support to two S&T field groups in the North Eastern Region A rural technology park is also being set up at Sikkim. With a view to promoting S&T entrepreneurship development, two new S&T Entrepreneurship Parks were set up at Thapar Institute of Engineering and Technology, Patiala, and PSG College of Technology, Coimbatore.

Some of the important achievements :

- 800 research projects including 200 projects for young scientists supported by SERC.
- BOYSCAST fellowships, Swaranjayanti Fellowship and Kishore Vigyanik Protashan Yojana initiated to encourage young scientists.
- National Accreditation Board for Testing and Calibration Laboratories (NABL) set up for providing accreditation to testing and calibration laboratories in the country.
- Important technologies developed include: superconducting technology- based ore separator and power generator, fish freshness bio- sensor, lactate and cholesterol bio-sensor, multi model imaging and image identification of cancer related diseases, expert systems for diagnosis and monitoring of leprosy and optical fibre based immuno sensor for Kala-zar.
- PFC facilitated filing of 38 patent applications including nine in foreign countries and sensitised large number of scientists and technologists on IPR related issues.

24. The India Meteorological Department continued to make systematic efforts to modernise its facility and improve the quality of meteorological services. To achieve this objective, sophisticated Doppler Radars are being introduced in the cyclone detection network for effective cyclone forecasting. Ozone spectro- photometers have been deployed at Antarctica to enhance the quality of meteorological data and study of ozone and upper air.

25. There is a need for S&T sector to lay greater emphasis on technology development programmes. A large number of sophisticated research facilities have been created in the country. These facilities should increasingly be utilized not only for research purposes but also for providing services to the industry. Science and society related programmes need to be more closely tied up with development sectors so that programmes relating to poverty alleviation, employment generation etc. could be strengthened with S&T inputs and large scale application of the new technologies is possible.

Scientific and Industrial Research

26. CSIR's major initiatives as the main agency for scientific and industrial research were related to: (a) re-engineering of the organisational structure to enable it to be more customer and market responsive; (b) linking R&D

to market place through alliances, networking and leveraging; (c) stimulating intellectual property management in the CSIR; (d) selectively investing in high quality science that would be the harbinger of future technologies; and (e) refurbishing the ageing human capital.

27. As a result of various initiatives taken by CSIR, the total external cash flow for 1997-99 from contract R&D and services from CSIR laboratories reached Rs.440 crore, up from Rs 393 crore during the corresponding period in 1995-97. The Indian patents filing during the year 1997-99 at 575 was lower than the 900 targeted but foreign patent filing at 206 exceeded the target of 175. Similarly, although there was no significant increase in the number of scientific papers contributed, the impact factor per paper has shown an increase from 1.26 in 1996 to 1.51 in 1998. The industrial production based on CSIR knowledge base has touched the figure around Rs.4,200 crore in 1998-99, which was about 10 per cent above the 1996-97 figure.

28. Significant achievements include: (a) design and development of Light Transport Aircraft (LTA) and development of Light Combat Aircraft (LCA); (b) obtaining of provisional certification of the two-seater trainer aircraft, HANSA-3 for commercial production; (c) release of a high yielding menthol mint variety Himalaya for commercial cultivation,; (d) development of energy efficient conversion technology of natural gas to lower olefines, conversion of methane to syngas and ethane to ethylene; (e) initiation of a major coordinated programme on development and commercialisation of bio-active molecules and introduction of a new anti-malarial plant based drug; (f) launching of human trial of a non-toxic cholera vaccine; (g) development of diagnostic probe for leishmaniasis; (h) development of non-hazardous process for anti-AIDS drug; (i) standardisation of hepatoprotective formulations; (j) conducting of exhaustive studies on pollution emission behaviour of different types of brick kilns; (k) development of a pollution control device for brick kiln; (l) development of a fluorescence based prototype kit rapidly to detect adulteration of argemone in mustard oil.

29. Important achievements of Department of Scientific and Industrial research (DSIR) include: (a) recognition of new in-house R&D Units in industry and non commercial Scientific & Industrial Organisations (SIROs) under the scheme R&D by Industry; (b) recognisation of 133 in-house R&D units and 48 SIROS ; (c) organisation of annual national conferences on in-house R&D in industry; (d) completion of 17 technology development and demonstration projects involving over 13 industrial units under PATSER scheme, resulting in commercialisation of products and processes such as SPV Traffic Signalling System, automatic transmission control for dump trucks, detonating card for exploration; (e) supporting of 16 projects under the Technopreneur Promotion Programme (TePP) jointly by DSIR under its PATSER scheme and DST under its Home Grown Technology Scheme; (f) continuation of National Research Development Corporation (NRDC) effort on development and transfer of indigenous technology through Invention Promotion Programme; and (g) completion by the Central Electronics Ltd. (CEL) of projects like design and development of Solar Photo Voltaic (SPV) Systems and SPV Monitoring Systems.

Important Achievements:

- Major initiatives on re-engineering of the organisational structure, linking R&D to market place, networking and leveraging; stimulating intellectual property management, selectively investing in high quality science & refurbishing the ageing human capital.
- Launching CSIR Programme for Youth Leadership in Science (CPYLS) scheme to attract youth to science.
- External cash flow for the period 1997-99 from contract R&D and services reached Rs.440 crore.
- The Indian patents filing during the year 1997-99 at 575 & the foreign patent filing at 206 exceeded the targets.
- The industrial production based on CSIR knowledge base touched the figure around Rs.4200 crore in 1998-99,
- A satellite based CSIRNET is being set up connecting CSIR headquarters and laboratories to have a fast real time access to one another as also to internet.
- Achievement made in technology development include : design & development of LTA, release of high yielding mint variety for commercial cultivation, new anti-malarial plant based drug, diagnostic probe for leishmaniasis, non-hazadous process for anti-AIDS drug, prototype kit for rapid detection of mustard oil etc.

30. Concerted efforts are needed for taking up R&D programmes with more interface with industry. Emphasis is to be given on undertaking projects sponsored by the industries so that R&D funding could be enhanced with reduced dependence on budgetary support. Although CSIR is laying emphasis on IPR- related issues and is doing pioneering work in patenting its research findings, it is necessary to devote greater effort to identify critical area where research result leads to value added processes and product development, and have potential for patenting.

Biotechnology

31. The main thrust of biotechnology programme aims at bio-industrial development of the country; ensuring judicious utilisation and conservation of biological resources using the biotechnological tools; research and development for products, processes and technology generation for achieving academic excellence of the highest national and international standards and for societal benefit.

32. Significant achievements are : (a) development of pest- resistant transgenic cotton, markers for high quality in wheat, hybrid mustard seeds, transgenic viral-resistant tobacco plants; (b) transferring of technology to industry for producing myccorhizal biofertiliser besides development of an anti-fungal formulation for control of root- rot diseases; (c) transferring of three protocols for Eucalyptus, Sugarcane, and Populus to the industry for large scale production of these plants; (d) functioning of two tissue culture pilot plants at National Chemical Laboratory (NCL), Pune, and TERI, New Delhi, as micro-propagation technology parks; (e) standardization of embryo transfer technique in camel and development of a new protocol for camel super ovulation; (f) development and transferring of three diagnostic kits for detection of HIV-I & II, a therapeutic vaccine for leprosy, (Leprovac) and a drug delivery system for systemic fungal infections transferred to industry; (g) setting up of a biotechnology facility in the North East for popularisation of tissue culture technology and producing sufficient quantity of planting material for the region; (h) setting up of Golden Jubilee Biotechnology Park for women at Chennai and Bio-Village in Gujarat for economic development; (i) developing of four low cost nutrient food supplements through biotechnological approaches; (j) developing of the process know-how and making it available to the industry for maintenance of culture and production of spawns, commercial production and dehydration of Oyster Mushroom; (k) completion of Phase-III clinical trials on patients having systemic fungal diseases and Phase-II clinical trials on patients having leishmaniasis and transferring it to industry for commercialization.

33. The autonomous institutions like National Institute of Immunology (NII), New Delhi, National Centre for Cell Science (NCCS), Pune, and Centre for DNA Fingerprinting and Diagnostics (CDFD), Hyderabad, have been contributing through basic research and several leads have been obtained resulting in publications, patents and technology transfers which include transfer of technology for anti-leprosy vaccine and HIV detection tests, large scale expansion of human skin in culture for the treatment of burns, etc.. Two new autonomous institutions were also established, namely, National Centre for Plant Genome Research and National Brain Research Centre at New Delhi. Four Jai Vigyan S&T mission projects have been initiated in areas of herbal product development, genomic database, coffee improvement and new vaccine development for important communicable diseases.

Salient achievements :

- Development of pest resistant transgenic cotton, marker for high quality wheat, hybrid mustard seed.
- Technology transfer for producing myccorhizal biofertiliser & tissue culture protocols for eucalyptus, sugarcane & populus.
- Diagnostic kits for detection of HIV-I & II, a therapeutic vaccine for leprosy (Leprovac) and a drug delivery system for systemic fungal infections transferred to industry.
- Standardisation of ETT technique in camel;
- Biotechnology parks set up in the North East for popularising tissue culture.
- Golden Jubilee biotechnology park for women at Chennai and a bio-village in Gujarat for economic development.

34. Many agencies like ICAR (Indian Council of Agriculture Research), CSIR and ICMR (Indian Council of Medical Research) are supporting bio-technology R&D programmes in addition to Department of Bio-Technology (DBT). There is already collaboration between DBT and these agencies through inter departmental expert task forces. It is nevertheless very necessary to identify specific thrust / programmes with clear identification of activities/areas among various departments/agencies for optimum utilization of scarce resources. Though the programme for biotech product development are being strengthened, the programmes relating to vaccines, diagnostics, biofertilisers, biopesticides need further strengthening. Efforts have been made for consolidation of the research results, validation, pilot level production, technology transfer and commercialisation. Greater emphasis is needed on the critical tasks of consolidation of research results for technology development and transfer and taking up R&D programmes which have potential for market oriented technology development so that benefits of these efforts are fully realized.

Ocean Development

35. The programmes of the Department of Ocean Development (DOD) are basically grouped as : basic research, strategic fields, technology development/ scientific services and societal programmes. Major activities are in the areas of (a) polar sciences, ((b) marine

living and non-living resources, (c) marine environment and coastal zone management, (d) ocean observation and information services, (e) marine research and manpower development. Under basic research, projects have been implemented in collaboration with national laboratories, universities and educational institutions for development of potential drugs and chemicals from the marine organisms.

36. Antarctic Research and Polymetallic Nodules are two long-term programmes of DOD. So far, 19 scientific expeditions to Antarctica have been launched with strengthened logistics support from Maitri Station. A brewer Spectro-photometer was installed at Maitri Station to measure the ozone and trace gas contents. The activities of the Polymetallic Nodules Programme include : survey and exploration of Polymetallic Nodules in the Central Indian Ocean Basin, Environmental Impact Assessment Study, Technology Development for Mining of Nodules and Technology Development for Extraction of Metals. Spot sampling at a closer grid of 5 km was initiated in the identified blocks. A Remotely Operated Vehicle (ROV) capable of operating up to a 250- meter depth was designed, fabricated and field- tested. A pilot plant of metal extractive technology of 500 kg per day was designed and developed. Basic engineering and specifications of a mining complex module capable of operating at 6000 meter depth with a mining capacity of 25,000 tonnes of nodules per year is in progress.

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37. Data products in the form of sea surface temperature, potential fishing zones maps and other ocean features like waves, upwelling zones, oceanic eddy information, chlorophyll and suspended sediment loads etc. have been generated and disseminated to potential users. Twelve Data Buoys for data collection on meteorological oceanography and environment have been deployed at select locations in the coastal/deep waters in Indian Ocean. Integrated Coastal and Marine Area Management (ICMAM) capacity building programme has initiated activities on development of GIS- based information system, determination of waste load allocation based on waste assimilation characteristics of select estuaries, development of model ICMAM plans for Chennai, Goa and the Gulf of Kutch.

38. A multi-disciplinary and multi-institutional programme for making an assessment of marine living resources beyond 70 metre depth within the Indian EEZ was initiated. Two hundred new marine flora and fauna have been collected and identified for chemical extraction and bio-evaluation; and bio-evaluation of 6 organisms possessing anti-viral, anti-diabetic, anti-cholesterol, anti-anxiolytic, wound healing and larvicidal activities completed. India ratified the UN Convention of the Law of the Seas in 1995 and the claim for extending the outer limits of India's continental shelf beyond 200 nautical miles of EEZ has to be made before the year 2005. Ocean Science and Technology Cells (OSTC) were set up in eight selected Universities located in the coastal states in the field of marine coastal ecology, marine geology and geophysics, marine micro-biology and marine culture systems.

39. Ocean Observation and Information Services programme being implemented for generation and dissemination of potential fishing zone maps should be based on the demand/requirement of the user community. Benefits accruing from the programme therefore need to be quantified. The Ocean Science and Technology Cells being set up in various universities for generation of skilled manpower in specific field of ocean science need to be demand-driven, i.e. closely tied up with the demand of ocean scientists. The two long term programme viz.Antarctic Research and Polymetallic Nodules (PMN) programmes need to be critically examined in the light of experience and results obtained so far, and necessary mid-course corrections initiated accordingly.

Major achievements :

- 17th and 18th Scientific Expeditions to Antarctica launched.
- Spot sampling at a closer grit of 5 km initiated and 30 per cent pioneer area relinquished to the International Sea Bed Authority.
- 1MW gross and 600KW net Ocean Thermal Energy Conversion (OTEC plant) under construction
- A pilot plant of metal extractive technology of 500 kg per day is being established.
- The data products in the form of sea surface temperature, potential fishing zones maps and other ocean features like waves, upwelling zones, oceanic eddy information, chlorophyll and suspended sediment loads etc. generated and disseminated to the potential users.
- 12 Data Buoys for data collection on meteorological oceanography and environment have been deployed at selected locations in the coastal/deep waters in Indian Ocean.
- 200 new marine flora and collected and identfied for chemical extraction for development of drugs of which bio-evaluation of 6 organisms possessing arti-viral, anti-diabetic, anti-cholesterol, anti-anxiolytic, wound healing and larvicidal activities completed.
- Ocean Science and Technology Cells (OSTC) set up in eight selected Universities located in the coastal states in the field of marine coastal ecology, marine geology and geophysics, marine micro-biology, marine culture systems, marine biology , marine benthos, placer deposits and under water engineering and robotics

Generic Issues Relating to S&T Sector : An Assessment

Policy Guidance Mechanisms

40. A three tier National Apex level S&T mechanism comprising Cabinet Committee on S&T (CCST), Science Advisory Committee to the Cabinet (SACC) and Committee of Secretaries for S&T (COS S&T) were in existence to provide policy directives, introduce the process of planning the programmes/ projects, setting priorities among the various S&T sectors and restructuring the S&T system to suit the changing needs. These mechanisms were non functional. Recently, National Apex level S&T mechanism has been reconstituted and efforts are being made to evolve policy directives and implementation mechanism on various S&T matters including Technology Vision 2020. This mechanism needs to play a critical role so that institutionalized policy and implementation guidance could be evolved for harnessing Science and Technology for development of the various sectors of economy.

Applied Research & Technology Development

41. There is no doubt that significant achievements have been made over the years in various disciplines of science and technology. Primarily the efforts have been on promotion of basic research and scientific excellence by creating sophisticated infrastructural facilities in research and academic institutions. The technology development programmes appear to be significantly low. Although several technology spin-offs have taken place, final commercialisation and large scale use of the technology are yet to attain the desired level. Most of the research programmes irrespective of discipline require to be demand driven recognising importance of market mechanism so that the sophisticated research facilities and vast scientific and technological expertise could be utilised optimally for improving the quality and productivity of the goods and services.

S&T For Socio-Economic Development

42. For integrating S&T with the socio-economic development, Science and Technology Advisory Committees (STACs) were set up in as many as 24 ministries/ department besides an Inter-sectoral Science and Technology Advisory Committee to co-ordinate the S&T activities in the various development departments through STAC mechanism. Some of the STACs are very effective and functional while others are ineffective and non-functional. STACs need to be encouraged to take up an active role in providing the technology and inputs necessary for the concerned sector. Greater initiative is needed in dovetailing new and innovative S&T in major sectors of development. The role of vast S&T infrastructure and scientific and technical manpower of the country need to be defined on the basis of the S&T-based programmes for creative employment, quality of life, improved environment and health.

Integration/Linkages Of Research Initiatives

43. The research programmes mainly in basic sciences are being supported by several departments without any integrated approach. There is need to evolve thrust area programmes in various disciplines of science for implementation by different agencies. This would ensure the focussed approach and avoid duplication. This mechanism may also ensure the follow-up of various research programmes toward development of technology by involving national research laboratories and industries. Greater involvement and linkages are required to promote basic research in universities and academic institutions, specially around outstanding scientists, with a focus on strengthening of infrastructural facilities.

Areas of attention :

- Reconstituted National Apex level S&T mechanism need to play a critical role in policy making and implementation guidance for S&T programmes.
- Research programmes should be demand driven recognizing the importance of market mechanism with greater participation and involvement of industries in R&D..
- Integration of S&T with Socio-Economic Ministries using STAC mechanism for harnessing S&T for development of various sectors. Successful S&T demonstration programmes needs to be tied up with the ongoing development programmes for better performance and higher returns.
- Active involvement and effective linkages of universities and academic institutions for basic sciences.
- Reorientation of research programmes with greater thrust on patenting besides creating awareness of IPR related issues.
- S&T manpower development needs immediate attention to deal with new and emerging technologies as well as to fill the gap in availability of specialised trained manpower.
- Research laboratories should be encouraged to seek certification under ISO/peer group standards for acquiring competitive edge.
- The S&T thrust in response to WTO needs to be focused on conformance to global standards particularly for IPR, quality assurance system and enabling the Indian industry to cope with the problems arising from fundamental and radical technological and trade changes.

Demonstration of Pilot Projects

44. Several science and society related demonstration and pilot projects are being pursued and there are success stories. But these are so insignificant that the impact is nearly invisible. A major bottleneck is the lack of tie-up of this type of programme with development sectors from the beginning. The science department must interface its science and society related programme with major development programmes like IRDP, (Integrated Rural Development Programme) TRYSEM (Training of Rural Youth for Self Employment) etc. so that innovative S&T based programme could be enmeshed for better performance and higher return.

Industry Funding Of R&D

45. So far as funding of the S&T programmes is concerned, it is primarily through budgetary support of the Government. At present, the industry is contributing only about 28% to the R&D expenditure and remaining 72% is being funded by the Government. However, it has been emphasised that S&T funding should be significantly increased through greater participation of the industry. In order to attract greater industry funding, national R&D institutions and laboratories should orient themselves in a greater measure to address the needs of the industries and take up industry- specific problem- solving programmes.

29

Patents & IPR

46. In the areas of patent and protection of intellectual property rights, efforts have been made to create awareness among the country's scientists and technologists. The Patent Facilitating Centre (PFC) has been providing assistance in patenting inventions emanating from university-funded and government-funded programmes. PFC has set up seven Patent Information Centres in different States under the aegis of State S&T Councils. While efforts have helped create an overall awareness, a fire fighting approach seems to be prevailing to prevent others from securing intellectual property rights on manifestly Indian products. More needs to be done proactively to encourage patenting. India with its large S&T capabilities and facilities does not have any brand name in the market or any technology that is being exploited on a large scale at the international market.

Manpower Development

47. Concerted efforts have been made over the years to promote various disciplines of science and technology and wide- ranging S&T infrastructure and capability have been developed. However, two of the most challenging areas namely manpower development and large scale applications/integration of S&T in various sectors of development should be the critical areas of focus. There is a large scale migration of students from India to other countries or from one career option to another resulting in non-availability of specialised and trained manpower in the field of S&T. A policy direction on manpower development to suit national requirements require urgent attention.

Strategic Concerns

48. There are also some strategic concerns particularly relating to restrictions on supply of technologies by the developed countries. While the resources are limited, there exists a need to continuously evaluate strategies of optimal utilisation and conservation of resources to deal with likely shortages in future. New technologies relating to materials and processing need to be continuously addressed. There also exists a need to assess requirements of equipment, products and services which fall under the category of strategic needs particularly technologies for the extraction of new energy sources and raw materials from diverse sources including the sea-bed.

Response To WTO Issues

49. On the S&T response to World Trade Organisation (WTO), two issues need immediate attention namely conformance to global standards particularly for IPR and quality assurance system and enabling the Indian industry to cope with the problems arising from fundamental and radical technological and trade changes. In order to deal with the challenges posed by WTO, the S&T thrust need to be focused on (a) strengthening of Intellectual Property awareness, information, generation and exploitation mechanisms; (b) aligning of Quality Assurance Systems for S&T to international norms; (c) widening the innovation base through supporting non-formal and grass-root level innovation; (d) intensifying the funding of knowledge/ innovation- based industries; (e) exploring and initiating the export of S&T based services; and (f) deepening and strengthening linkages among and between different players in the innovation chain.

50. As against the total Ninth Five Year Plan Outlay of Rs. 12,022.17 crore under the Central sector for six scientific departments viz DAE (R&D), DST, DBT, DOD, DSIR/CSIR and DOS, the total anticipated expenditure during first three years of the Plan would be of the order of Rs. 6,550.56 crore at current prices and Rs. 5,771.26 crore at constant (1996-97) prices i.e nearly 48% of the Plan outlay. It is therefore highly unlikely that the total outlay would be utilized during the Plan period.

Progress of outlays/expenditure is given at Annexure-I

Conclusion

51. The major thrust has been on harnessing of S&T for societal benefits, R&D programmes on mission mode, nurturing of outstanding scientists, establishing linkages between industry and research institutions/laboratories for the development of market technology , development of clean and eco-friendly technologies, awareness on technology marketing and IPR issues. . Concerted efforts have been made on strengthening R&D activities, S&T infrastructure in universities and academic institutions and promoting indigenous technology using STAC and IS-STAC mechanism. National Apex level S&T mechanism needs to play a critical role to provide policy directives and implementation guidance. The technology development programme should be demand-driven recognizing importance of market mechanism so that sophisticated research facilities and vast S&T expertise could be utilized optimally. There is need to evolve thrust area programmes in various disciplines of Science for implementation by different agencies to ensure focused approach and avoid duplication. The S&T funding needs to be significantly increased through greater participation of the industry. Although efforts have been made to promote various disciplines of S&T , the manpower development and large scale applications / integration of S&T in various sectors of development are areas of critical focus in the domain of S&T . The S&T thrust in response to WTO needs is to be focused on conformance to global standards particularly for IPR awareness, information, generation and exploitation mechanism and quality assurance system.

Annexure -I

CENTRAL S&T DEPARTMENTS/AGENCIES PROGRESS OF PLAN OUTLAY/EXPENDITURE

(Rs.In crores)

DEPARTMENTS	Ninth Plan Outlay 1997-02	Annual Plan (1997-98)				Annual Plan (1998-99)				Annual Plan (99-2000)				(97-2000)				2000-02	
		BE		ACT		BE		ACT		BE		AE		BE		AE		Balance	
		Current Price	Const. Price	Current Price	Const. Price	Current Price	Const. Price	Current Price @	Const. Price	Current Price	Const. Price	Current Price @	Const. Price	Current Price	Const. Price	Current Price	Const. Price	Current Price	Const. Price
1. Department of Atomic Energy (R&D)	1500.00	225.00	212.99	173.93	164.64	300.00	265.89	243.08	215.44	325.00	271.74	370.21	309.54	850.00	750.61	787.22	689.62	712.78	810.38
2. Department of Ocean Development	510.62	88.10	83.40	83.96	79.48	88.00	77.99	88.00	77.99	90.00	75.25	90.00	75.25	266.10	236.64	261.96	232.72	248.66	277.90
3. Department of Science & Technology	1497.35	280.00	265.05	276.79	262.01	305.00	270.32	227.36	201.51	310.00	259.20	310.00	259.20	895.00	794.57	814.15	722.72	683.20	774.63
4. Department of Biotechnology	675.00	107.00	101.29	85.23	80.68	107.00	94.83	100.81*	89.35*	110.00	91.97	110.00	91.97	324.00	288.09	296.04	262.00	378.96	413.00
5. Department of Sci. & Indus. Research (Including CSIR)	1327.48	230.00	217.72	220.52	208.75	230.00	203.85	225.94	200.25	289.00	241.64	306.00	255.85	749.00	663.21	752.46	664.85	575.02	662.63
6. Department of Space	6511.72	990.00	937.15	838.73	793.95	1381.00	1223.97	1281.00*	1135.34*	1519.00	1270.07	1519.00	1270.07	3890.00	3431.18	3638.73	3199.35	2872.99	3312.37
Total S&T	12022.17	1920.10	1817.60	1679.16	1589.51	2411.00	2136.85	2166.19	1919.88	2643.00	2209.87	2705.21	2261.88	6974.10	6164.30	6550.56	5771.26	5471.61	6250.91

@' indicate figs. from plan proposal of Mid-term Appraisal of Ninth Plan.
* indicate RE Fig.

CHAPTER 30

STATE PLANS : PERFORMANCE AND PROBLEMS

Introduction

Balanced development of all regions has been a long term objective of planning in India. State Government has the primary responsibility to formulate detailed plans and schemes for the State and develop backward areas within it while the Planning Commission helps the State in this effort through transfer of resources to implement annual plans. Funds so transferred include normal central assistance, open market borrowings, negotiated loans from financial institutions and additional central assistance for externally aided projects. For States that have faced severe financial difficulties on account of disturbed conditions, special plan loans are also envisaged.

2. The State sector of Five Year Plans consists of Special Area Programmes like Hill Area Development Programme (HADP), including Western Ghat Development Programme (WGDP), North-Eastern Council (NEC) and Border Area Development Programme (BADP) which are largely funded by the Central Government, Tribal Sub-Plans (TSP) and Externally Aided Projects (EAPs), besides plans of the States/Union Territories (UTs). A brief resume of the performance and problems relating to the implementation of Special Area Development Programmes is placed at Annexure 1.

State Plan Outlay and Expenditure

3. Plan expenditure (at constant prices) during the entire Eighth Five Year Plan fell short of the outlay by 22.4%. States which spent substantially less than the Plan outlay included Bihar (-67.8%), Orissa (-46.9%), West Bengal (-35.9%), Uttar Pradesh (-26.3%) and Meghalaya (-21.1%). These States continue to show substantial reduction in plan expenditure compared to the approved annual outlay in first two years of the Ninth Plan as well. However, States like Andhra Pradesh, Madhya Pradesh, Karnataka, Kerala and Tamil Nadu have shown good performance in plan expenditure in first two years of the Ninth Plan. Several other States have not been able to spend the approved outlay fully and the percentage of shortfall varies considerably among them (Annexure 2).

4. Trends in per capita plan expenditure since 1995-96 no doubt indicate a steady increase in most States (Annexure 9.3). However, in the case of Uttar Pradesh, per capita plan expenditure declined drastically in 1996-97 and 1997-98 and recovered only marginally in 1998-99. This was because of heavy shortfall in total plan expenditure as compared to the approved outlay during these years. Per capita plan expenditure of Bihar continued to be the lowest in the country, while that of Assam showed hardly any increase between 1995-96 and 1997-98.

5. A State-wise profile of expenditure (at current prices) in relation to the yearly approved plan outlay during the first two years of the Ninth Plan may be seen at Annexure 9.4. Notably, Bihar and UP recorded the largest shortfall in plan expenditure as compared to their original approved outlay; the shortfall was of the order of 33% and 31% respectively. The general inability of most States to utilise fully what was approved by the Planning Commission after detailed discussions with them is certainly a matter of concern, but the huge gap between the approved outlay and expenditure in States like UP and Bihar is indeed alarming. While all the major sectors were affected in the process, the worst hit has been the power sector in those two States. Indeed Uttar Pradesh provided more funds for energy sector at the time of allocation but this could not apparently be translated into action. Investment in the power sector has been lower in Assam, Orissa, Jammu & Kashmir and Mizoram as well. However, the States of Punjab and Rajasthan spent much more than their outlay in the power sector; this was at the cost of other sectors where substantial shortfalls had occurred. In West Bengal also the largest expenditure was in the power sector but the shortfall in expenditure against outlay in the other sectors has been comparatively insignificant.

6. States like Goa, Haryana, Jammu & Kashmir, Orissa, Punjab, Rajasthan and Tamil Nadu — in addition to Bihar, UP and West Bengal — spent less money on irrigation than what was provided. Social Sector expenditure was significantly less in Goa, Gujarat, MP, Maharashtra, Punjab, Rajasthan, UP, Bihar and West Bengal. The North Eastern States generally spent less in agriculture, industries, irrigation and rural development sectors. Among the Union Territories, the National Capital Territory of Delhi reported substantial shortfall in expenditure in transport sector particularly in 1998-99. Pondicherry spent more in the power sector than its outlay.

Externally Aided Projects

7. According to the 1999 Human Development Report published by United Nations Development Programme (UNDP), net Official Development Assistance (ODA) received by India amounted to only 0.4% of the country's GNP. This was less than half the average for

compared to the weaker States. Multilateral donors such as World Bank and Asian Development Bank (ADB) have over time developed some preferences for certain States to locate externally aided projects. Among others, the major considerations on the part of the donors seem to be :

(i) Capability of the States to pose projects as per donors' perception of priority areas.

(ii) Ability of the States to engage the donor in dialogue.

(iii) Conveying an impression to the donor about being reform oriented.

(iv) A reasonable assurance of project implementation through good governance.

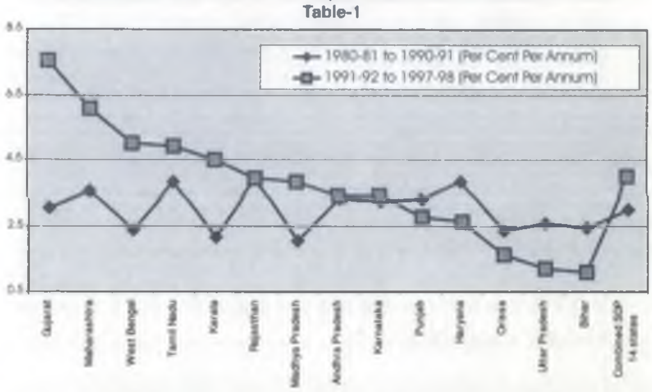
14. Even though distribution of ACA among the States is highly unequal (sometimes raising serious concerns over inter-regional equity), there are certain advantages in involving external donors in development programmes. Firstly, it creates additionality of resources for social and infrastructure sectors, the two most important areas of concern in our development policy. Secondly, international agencies insist upon proper documentation of project proposals followed by mid-term evaluation and a final evaluation. They also fund research projects on socio-economic issues relevant to that sector. Because of the wealth of data generated by donor-promoted consultancies, it becomes possible to identify and pinpoint the shortfalls that occurred as well as the problems faced in the implementation of various earlier projects. The donors send a team every six months to the project areas and the lessons learnt are used for mid-course corrections. All these ensure better implementation of the project. Thirdly, external assistance promotes interaction of Government officials with academicians and professionals from several disciplines such as sociology, anthropology, tribal development, economics, ecology and rural development. Finally it is generally felt that EAPs fare much better compared to results from non-aided projects. This is due to better monitoring of external aided projects and to conditional financing by the aid agencies.

15. At the same time, external aid has its imitation and negative aspects as well: Firstly, a larger number of EAPs leave very little money for other activities in the field. There is a feeling that the total money itself has not increased in the development budget but a great deal gets spent on consultancies especially involving foreign experts. Secondly, there is more emphasis under EAPs on achieving immediate success rather than on sustained gains. Thirdly, it is often said that Government officials do not take much interest at the time of formulation of projects leaving crucial decisions on priorities to donor-appointed consultants who may not be aware of the field conditions. Fourthly, foreign money is seen as easy money and the Governments do not undertake a close scrutiny of the projects prepared by the consultants, with the result that the projects end up deepening the dependency syndrome. Finally a great deal of international experience is now available to show why aid to poor countries has largely failed to spur growth or relieve poverty. It can work only if aid is accompanied with good governance and sound economic policies such as Botswana had, for instance, but Zambia was not seen to have.

Economic Growth in the States

16. The table given below presents the estimated growth rates of SDP per capita in 14 major States in the pre-reform decade 1980-81 to 1990-91 and in the post-reform period 1991-92 to 1997-98.

Annual Rates of Growth of Per Capita Gross State Domestic Product
Table-1



17. Figures for the growth of gross GDP are as follows:-

Rates of Growth of Gross SDP

	1980-81 1990-91	1991-92 1997-98
Bihar	4.66	2.69
Rajasthan	6.60	6.54
Uttar Pradesh	4.95	3.58
Orissa	4.29	3.25
Madhya Pradesh	4.56	6.17
Andhra Pradesh	5.65	5.03
Tamil Nadu	5.38	6.22
Kerala	3.57	5.83
Karnataka	5.29	5.29
West Bengal	4.71	6.91
Gujarat	5.08	9.57
Haryana	6.43	5.02
Maharashtra	6.02	8.01
Punjab	5.32	4.71
All 14 States	5.24	5.92
All India	**5.55**	**6.89**

30

18. The following conclusions emerge from the above table on growth performance of States:

(i) The growth rate of the SDP of all the 14 States taken together has increased from 5.2% in the pre-reform period to 5.9% in the post-reforms years. This picture of acceleration of growth in the 1990s is broadly consistent with the picture which emerges from the national GDP data for the same two periods — with one qualification, though: while the national accounts data show a very similar growth rate of 5.4% per year in the first period they show a much higher growth rate of 6.9% in the second period. The faster growth shown by the national accounts in the 1990s probably reflects the fact that the GDP data were revised for the period from 1993-94 onwards but a similar revision had not been done at the State level.

(ii) As one could expect, there is variation in the performance of individual States; some States have grown faster than the average and others slower. What is interesting, however, is that the degree of dispersion in growth rates across States increased very significantly in the second period. The variation range between the slowest and the fastest growing State in the 1980s was from 3.6% per year in Kerala to 6.6% in Rajasthan: a factor of less than 2. The range increased very substantially in the 1990s from a low of 2.7% per year for Bihar to a high of 9.6% for Gujarat, a factor exceeding 3.5%.

(iii) The observed performance differential becomes even more marked when one allows for different rates of growth of population and evaluate the performance of the States in terms of growth rates of per capita SDP. The growth of per capita SDP in the 1990s varied from as low as 1.1% per year in Bihar and 1.2% in U.P to a high of 7.6% per year in Gujarat with Maharashtra coming next at 6.1%. Comparing Bihar's per capita growth rate with that of Gujarat in the 1990s, the ratio between the lowest and the highest is 1:7.

(iv) The increase in the range of variation across States in the 1990s reflects very different changes in growth performance compared to the 1980s. . It was noted earlier that the growth rate for the country as a whole accelerated in the 1990s, but this was not the experience for all States. Growth rates decelerated sharply in Bihar, Uttar Pradesh and Orissa, all of which had relatively low rates of growth to begin with. The rates also decelerated in Haryana, Punjab, Rajasthan and Andhra Pradesh, though the deceleration was from relatively higher levels of growth in the 1980s.

(v) Seven States showed an acceleration in growth in the 1990s. It was particularly marked in Maharashtra and Gujarat, both of which among the richer States; there was also acceleration in West Bengal and Kerala, both belonging to the middle income groups. Contrary to popular impression, it is not only States in one part of the country which experienced good growth. In fact the seven States with the highest growth rates of SDP in the 1990s are fairly well distributed regionally i.e Gujarat (9.6%), Maharashtra (8.0%), West Bengal (6.9%), Tamil Nadu (6.2%), Madhya Pradesh (6.2%) and Rajasthan (5.9%).

19. An interesting feature of the differences in performance among the States is that the popular characterisation of the so called BIMARU States (Bihar, Madhya Pradesh, Rajasthan and UP) as a homogeneous and backward group (a grouping originally proposed in the context of commonalties in demographic behaviour and social development) does not hold as far as economic performance is concerned. Bihar and UP were undoubtedly poor performers in the 1990s growing much more slowly than the average. However the other two members of this group, Rajasthan and Madhya Pradesh, performed reasonably well in the 1990s; Madhya Pradesh's growth actually accelerated compared with the previous decade. Rajasthan's growth rate was about the same but a very strong growth performance it was, substantially exceeding the average for all 14 States.

20. Nor is the perception that coastal States have done well universally valid. Orissa is a coastal State but its growth performance is very poor. On the other hand Madhya Pradesh and Rajasthan are both heartland States that seem to have performed reasonably well.

21. The growth of Gujarat and Maharashtra — at rates normally associated with miracle economies — is undoubtedly an important and very heartening feature of the 1990s. The implicit concentration of benefits in two States is sometimes criticised but the demonstration that Indian States can grow fast once favourable circumstances are created is an important psychological breakthrough given the deep seated pessimism that had developed about the country's growth capability 20 years ago. Nor were Gujarat and Maharashtra the only States that experienced good growth; West Bengal at 6.9%, Rajasthan at 6.5% ,Tamil Nadu and Madhya Pradesh both at 6.2%, also showed a robust growth performance, all of which should help dispel pessimism about what is feasible in India.

Human Development

22. Human development is an indicator of poverty reduction and a way out of poverty. States which have low per capita income generally have the largest number of people living below the poverty line. Several studies

have shown that such States are the most backward in regard to various indicators of human development.

23. The table at Annexure 9.5 shows the comparative picture of some major human development indictors in rural India covering poverty, education, health and use of certain facilities. It would be seen that the percentage of population below poverty line (BPL) is the highest in Bihar (55%) followed by Orissa, Madhya Pradesh and Uttar Pradesh. The lowest percentage is in Punjab (11.8%). That more than one-third of the population in the country are below poverty line is itself a matter of grave concern; the wide disparities in the distribution of poor among the States is even more alarming. Wage rates also vary widely between the States. However, there is no necessary correlation between wage rates and poverty, probably due to the existence of subsidies and different price levels.

24. An important indicator of human development is literacy rate which also shows great variation among the States. As per the estimate for 1997, on one end of the spectrum is Kerala with over 90% literacy rate and at the other end is Orissa with just 51%. Bihar, Rajasthan, Uttar Pradesh and Madhya Pradesh have a literacy rate of less than 60%. In terms of female literacy, the 1991 Census figures indicate that Rajasthan had the lowest female literacy rate (20.4%) closely followed by Bihar (22.5%). Uttar Pradesh , Madhya Pradesh and Orissa had also female literacy rates less than national average (39.3%). It is possible that some improvement has taken place in the last few years; however, the relative position of the States may not have changed significantly. There is no doubt that most States s have to do a lot more in universalising primary education and increasing the female literacy rate.

25. Success or failure of various health care schemes implemented by the State Governments and supplemented by the private sector is ultimately reflected in the death rate while the combined effect of health care, education and family planning measures is reflected in the birth rates. This is particularly so in rural India where three- fourths of the population live. In this respect also Kerala leads with a rural birth rate of 18 and death rate of 6 per thousand population, closely followed by Tamil Nadu (21 and 9 respectively). Uttar Pradesh has the highest birth and death rates of 36 and 14 respectively followed by Rajasthan, Orissa and Bihar. As long as these larger States fail to achieve birth/death rates nearer to the rates achieved by Kerala and Tamil Nadu, it will not be possible to control either the rate of growth of population or mortality due to diseases and malnutrition in the country.

26. A sample survey undertaken by National Council of Applied Economic Research (NCAER) in 1994 showed that the percentage of rural households using electricity was the highest in Haryana and Punjab (over 80%). Only 10 per cent of households in Bihar used electricity while the percentage was 16 in West Bengal, 19 in Orissa and 20 in Uttar Pradesh. The percentage of rural households using piped water was lowest in Bihar (4%), followed by West Bengal and North East (NE) region (9%). Piped water was available to 71% of households in Himachal Pradesh and to 60% in Gujarat. In Madhya Pradesh, Kerala, North East region and Punjab, this percentage varied between 11 and 21. As regards number of households benefited by the Public Distribution System (PDS), the percentage was as low as 5 in Bihar and Uttar Pradesh, 6 and 9 in Punjab and Haryana respectively. While the very low percentage in the case of U.P. and Bihar might reflect the failure of PDS in reaching out to the poor, in Punjab and Haryana this may be more due to the availability of foodgrains at reasonable prices in the market. It may be added that these percentages are based on a sample survey and are hence subject to a margin of error, but the inter-se comparative position of States in a census count may not be significantly different from what is shown above.

The Challenge

27. A most striking feature of India's development as could be noted from the paragraphs above is the persistence of widespread disparities – across States, within States and across communities and gender.

28. There are large differentials in the levels of human development among the States. For instance :

- In 1996-97, Bihar had a per capita Net State Domestic Product of Rs. 3,835. In Punjab, it was Rs. 18,213 – nearly five times higher.
- In 1991, Kerala reported a literacy rate of 90%. In Bihar and Rajasthan, the literacy rate was around 38.5%.
- In 1993-94, some 12% of Punjab's population lived below the income poverty line. The proportion was 49% in Orissa.
- Between 1989-93, life expectancy at birth in Assam was barely 55 years – 17 years fewer than in Kerala where it was 72 years.

29. Many of the inequalities between States are widening – and not narrowing. In the early 1970s, the per capita income of the richest State was roughly three times that of the poorest. Today, it is about five times. Poorer States with their problems of limited infrastructure and

social development have been less successful in attracting investment and, therefore, been unable to derive full advantage from the liberalisation process. The poorer States are constrained from catching up with other States due to severe fiscal problems. Social sector expenditure is also higher in the richer States, which may further increase inter-State disparities in development.

30. There are also large differentials in the levels of achievements within States. For instance, in 1991, Rajasthan had an average female illiteracy rate of 80% but in many districts in the State it was higher than 90%. Such intra-state differentials have had political repercussions in many regions which remain relatively backward due to their geographical location (like the hill areas, desert regions etc.), periodic and regular droughts and lack of perennial sources of water supply.

31. Disparities between rural and urban areas are also equally significant in almost all the States. Levels of human development are typically higher in urban than in rural areas. For instance:

- In 1998, the infant mortality rate in rural areas was 77 deaths per 1000 live births; it was 45 in urban areas.
- In 1992-93, the total fertility rate was 3.67 in rural areas among women of 15-49 years of age. In urban areas, it was 2.7.
- In 1992-93, 56% of rural children were under-weight (moderately and severely malnourished). The proportion was 45% among urban children.

32. Rural poverty in many States remains a product of feudal type of social structure and asset ownership where the landless poor especially the scheduled castes and scheduled tribes are at the bottom of the social structure.

33. Then come differentials between communities. The Scheduled Castes (constituting 16% of India's population) and the Scheduled Tribes (another 8% of population) find themselves lagging behind in most dimensions of human development. For instance :

- In 1992-93, 25% of Scheduled Tribe children and 27% of Scheduled Caste children between 12-23 months were fully immunised. The proportion was 38% among the rest of the population.
- In 1992-93, infant mortality among Scheduled Castes was 81deaths per 1000 live births. It was 57 among the rest of the population.
- In 1991, only 37% of the Scheduled Caste and 30% of the Scheduled Tribe population was literate as against the national average of 52%.
- In 1991, the literacy rate among female Scheduled Tribe women in Rajasthan was just 3%.

34. Finally gender inequalities. Women fare much worse than men on practically all indicators of human development. The anti-female bias is also reflected in the systematic denial of opportunities to girls and women vis-à-vis boys and men. The available data show that :

- The male literacy rate in 1991 was 64%. It was only 39% among women. Rajasthan had the highest female-male gap in literacy in the world.
- In 1995-96, some 41% of girls dropped out before completing primary school. The proportion was 38% among boys.
- In 1992-93, 71% of boys under 4 years of age who complained of cough and fast breathing were taken to a health facility or provider. The corresponding proportion among girls was 61%.

35. In many instances, discrimination against women and girls goes unnoticed as patterns of social arrangements often lend legitimacy to such anti-female bias that curbs women's freedoms.

36. The biggest challenge India has to confront not only during the remaining period of the Ninth Plan but also during the next plan will be to narrow down these disparities. What, then, causes these disparities and what needs to be done to narrow them down? Some of these disparities are due to natural causes. For instance, Vidharbha and Marathawada in Maharashtra, Royalaseema and Telengana in Andhra Pradesh and Northern Karnataka remain relatively backward due to periodic and regular drought and lack of perennial sources of water supply. Some regions are geographically at a disadvantage like the hills of Uttar Pradesh and the desert region of Rajasthan. To develop these areas, the plans have to provide for specific area development programmes which need to be implemented with community participation. Long term perspective plans coupled with suitable delivery mechanisms will have to be designed to bring these areas on par with the rest of the country.

37. It is unfortunate that even after 50 years of India's independence, the differentials between various communities continue to be glaring. There is need to have a closer look at the programmes designed for uplifting the Scheduled Castes and Scheduled Tribes and restructuring them to provide long-term development benefits to these communities. Emphasis on providing education to all would be more appropriate than to provide temporary assets to them. There is also a need strictly to implement the creamy layer concept so that the benefits reach the poorest of the poor even among the Scheduled

Castes, Scheduled Tribes and the Backward Classes.

38. It may also be necessary to direct externally aided projects to the States which deserve them most. But assistance generally goes to such States which have better economic performance and a reasonably good governance. In any case, good governance appears to be the critical factor in ensuring the balanced growth of different regions of India, which is discussed in the next chapter.

39. To conclude, it must be acknowledged that while the performance of the Indian States since Independence is nothing to be ashamed of, there are also many dark spots portending a long and arduous path ahead. We need to take much more interest in what is happening in individual States rather than focus all our attention on national trends which are averaged across States. A disaggregated view helps to define problems more precisely, and also helps to identify success stories from which to learn. The problems are indeed formidable, but the knowledge that progress is being made in some parts of the country will make it possible to accelerate change in others. Effective governance, civil liberty, efficient federal structure, independent judiciary and the overall democratic framework already existing within the country need to be activated to ensure that differences between the States get narrowed down as early as possible in the new millennium.

Special Area Development Programmes

Hill Area Development Programme

The Hill Area Development Programme (HADP) has been in operation from the Fifth Five Year Plan. Under this programme special central assistance is given to designated hill areas over and above normal plan assistance in order to supplement the efforts of the State Governments in developing these ecologically fragile areas. The main objectives of the programme are eco-preservation and eco-restoration with emphasis on preservation of bio-diversity and rejuvenation of the hill ecology. While HADP is in operation in the designated hill areas of Assam, Uttar Pradesh, West Bengal and Tamilnadu, the Western Ghats Development Programme is in operation in the Western Ghat Region in the States of Goa, Maharashtra, Kerala, Karnataka and Tamilnadu.

The designated areas under HADP were identified in 1965 by a committee of the NDC while WGDP areas were recommended by a high level committee set up for the purpose. Special central assistance under both the

programmes is given on 90% grant and 10% loan basis. Allocation / releases made under HADP and WGDP during the Ninth Plan period may be seen at Annex. 1.1.

Although all the State Governments concerned have reported full utilisation of the money under HADP, the hill areas continue to face problems owing to lack of proper planning and judicious use of local resources. Owing to population pressure, most of the hill areas suffer from severe degradation of forest covers which results not only in poor soil quality but also leads to the region becoming more prone to natural calamities like land slides etc. There is a need to re-orientate the schemes under the Hill Area Development Programme so as to address these problems particularly through appropriate afforestation and soil conservation measures. Detailed environment impact studies need to be undertaken before taking up any work on the slippery slopes of the hills.

Another critical issue noticed in the designated hill areas is the poor level of satisfaction among the population with the pace of development. In view of the poor allocation of funds to these areas, the expenditure tends to be thinly spread without creating any serious impact in the ecology and environment of the area. In some cases this has resulted in clamour for more autonomy and even demands for a new State. While the States must have the necessary flexibility to design programmes under the various special area development programmes, there is a need to prepare a perspective plan for these areas over a ten year period so that at least at the end of that period these areas can be brought on par with the rest of the State. On the implementation side, it is absolutely necessary to ensure people's participation either through the panchayati raj institutions at the local level or with the assistance of NGOs wherever available. In the western ghats region, there is a need to plan and implement a comprehensive watershed development programme in a time bound fashion rather than continuing with the present practice of frittering away the available allocations by taking up sporadic programmes in different sectors and areas of the region.

Border Area Development Programme

Border Area Development Programme (BADP) was started during the Seventh Plan for the balanced development of the sensitive border areas in the western region. This programme now stands extended to all the blocks having international borders. Special central assistance is provided as 100% grant for execution of approved schemes in these blocks. These schemes which usually provide for infrastructure facilities in the border villages are selected by a State level Screening Committee headed by the Chief Secretary of the State concerned. The allocations to the States are made based on three criteria viz., population of border blocks as per 1981 census, area of the border blocks and the length of the international border. The allocation and releases made under the programme during the first three years of the Ninth Plan are at Annex. 1.2.

In order to ensure that the limited funds available under BADP are not spread too thinly, the schemes under the programme are no doubt limited to border blocks. However, in some States it is seen that the works are implemented largely in the block headquarters. In order to ensure that the villages which are actually on the border benefit from this programme, a change in the spatial unit of the programme to border village panchayats instead of the border blocks may have to be considered. To ensure that the schemes are not taken up every year on an ad hoc basis there is a need to draw up a perspective plan for implementation under BADP, keeping in view the flow of funds under both the normal State plans and the BADP. The decision making process also has to be decentralised by involving the representatives of the panchayati raj institutions at the appropriate level.

North Eastern Council

The North Eastern Council (NEC) was established in April 1972 under the North Eastern Council Act 1971. The main purpose of establishing the council was to promote integrated development of the North Eastern region. Assam, Nagaland, Meghalaya, Tripura, Arunachal Pradesh, Mizoram and Manipur are the members of the Council. Though NEC is essentially an advisory body empowered to discuss matters relating to economic and social development common to two or more States, over the years it came to be entrusted with the role of an advisory, planning, monitoring, development and funding agency. The implementing agencies, however, continue to be the State Governments or the central public sector undertakings. The Council has been concentrating on enlarging transport and communication network, healthcare, development of power and strengthening of technical and professional institutions in the area. During the first two years of the Ninth Five Year Plan, the NEC was allocated a budgetary support of Rs. 764 crores against which the releases were only Rs. 687.71 crores. This shows that the amount allocated could not be spent to the full extent by the NEC. There is, therefore, a need to step up implementation of the projects within the area with greater emphasis on completion of ongoing schemes. The sector-wise budget estimates and releases made by NEC are in annex. 1.3.

Tribal Sub-plan

The concept of a tribal sub-plan emerged during the Fifth Five Year Plan, to raise the social and economic conditions, besides protecting the interests of the Scheduled Tribes through ensuring ST population proportionate funds flow from other development sectors. Special central assistance for tribal sub-plan is provided to the State Governments as an additive to the State's TSP to fill the critical gaps in income generating and employment programmes meant for ST families living below the poverty line. Thus the special central assistance is generally used for beneficiary oriented income generating schemes in the sectors of agriculture, animal husbandry, horticulture, minor irrigation, forests, education, soil conservation, minimum needs programme, infrastructure development etc. The outlay and expenditure during the first two years of the Ninth Five Year Plan through special central assistance under TSP is given in Annex 1.4.

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Annexure 1.1

ALLOCATION OF SPECIAL CENTRAL ASSISTANCE UNDER HILL AREA DEVELOPMENT PROGRAMME

State/Area	Annual Plans (Allocation) 1997-98	1998-99	1999-2000
(A) Hill Areas in the State of:			
Assam	46.32	50.16	50.90
Tamil Nadu	19.62	21.70	22.01
Uttar Pradesh	217.07	237.41	240.86
West Bengal	22.23	22.23	22.23
Survey & Studies	0.25	0.00	0.00
Sub-Total (A)	**305.49**	**331.50**	**336.00**
(B) Western Ghats Region:			
Kerala	9.46	11.91	13.08
Maharashtra	15.17	19.11	20.97
Tamil Nadu	8.00	9.97	20.97
Karnataka	11.22	14.13	15.51
Goa	2.33	2.95	3.20
Survey & Studies and Western Ghats Secretariat	0.43	0.43	0.30
Sub-Total (B)	**46.51**	**58.5**	**64.00**
Grand Total (A+B)	**352.00**	**390.00**	**400.00**

Annexure 1.2

ALLOCATIONS/RELEASES MADE TO STATES UNDER BADP AFTER ITS REVAMP IN 1993-94

(Rs. in crore)

States		1997-98 Allocation	1997-98 Releases	1998-99 Allocation	1998-99 Releases	1999-2000 Allocation
1.	Assam	4.12	2.06	4.27	4.27	7.20
2.	Gujarat	8.58	8.58	8.88	8.88	9.87
3.	J & K	20.68	10.34	31.38	31.38	33.52
4.	Meghalaya	3.95	3.95	4.11	4.11	4.52
5.	Mizoram	6.73	6.73	6.82	6.82	8.00
6.	Punjab	8.54	8.54	8.82	7.72	9.70
7.	Rajasthan					
	i} Through Formula	25.63	25.63	26.52	26.52	29.17
	ii} IGNP	60.00	60.00	30.00	30.00	8.00
8.	Tripura	10.96	10.96	11.34	11.34	12.47
9.	West Bengal	30.81	15.00	31.86	29.38	38.05
10.	Arunachal Pradesh	4.00	4.00	11.00	11.00	13.00
11.	Manipur	4.00	4.00	4.00	4.00	4.00
12.	Nagaland	4.00	4.00	4.00	4.00	4.00
13.	Himachal Pradesh	–	–	4.00	4.00	4.00
14.	Sikkim	–	–	4.00	4.00	5.50
15.	Uttar Pradesh	–	–	4.00	4.00	12.00
16.	Bihar	–	–	–	–	7.00
	Total	**196.00***	**163.79**	**195.00**	**191.52**	**210.00**

* 1997-98 : Rs. 4 crore were left unallocated for Myanmar Border States.

Annexure. 1.3

NEC : BUDGET ESTIMATES AND RELEASES

(Rs. in crore)

Sector	Ninth Plan 1997-02	Annual Plans				
		1997-98		1998-99		1999-2000
	A	A	R	A	R	A
Agriculture & Allied	34.30	8.76	6.01	3.70	1.43	5.61
Water & Power Development	1012.53	274.41	195.61	190.51	169.78	206.11
Industry & Minerals	18.00	3.40	3.09	27.13	26.04	4.75
Transport & Communication	1027.75	76.54	76.35	163.22	135.25	156.56
Manpower Dev.	171.28	22.78	22.13	25.80	24.63	31.86
Social & Community Services	90.84	14.15	13.63	18.05	7.71	21.05
General & Scientific Services	21.80	2.47	2.30	5.59	2.26	3.81
Externally Aided Projects	73.50	0.05	0.03	3.00	1.45	10.00
TOTAL	**2450.00**	**406.50**	**319.16**	**440.00**	**368.55**	**450.00**

A: Budget Estimates
R: Releases by NEC
Source: North Eastern Council, Ministry of Home Affairs, Shillong.

Annexure. 1.4

STATE-WISE RELEASE OF SPECIAL CENTRAL ASSISTANCE (SCA) TO TRIBAL SUB-PLAN (TSP) DURING 1997-98,1998-99 AND 1999-2000

(Rs. in lakh)

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S.No. (1)	States/U.Ts (2)	Annual Plan (1997-98) (3)	Annual Plan (1998-99) (4)	Annual Plan (1999-2000) * (5)
1.	Andhra Pradesh	2581.54	2728.47	2187.86
2.	Assam	1460.00	2069.56	2449.01
3.	Bihar	–	–	5124.20
4.	Gujarat	2632.77	3689.70	3147.05
5.	Himachal Pradesh	521.89	689.44	515.20
6.	Jammu & Kashmir	521.80	739.22	778.13
7.	Karnataka	500.00	686.64	617.52
8.	Kerala	196.12	408.17	219.13
9.	Madhya Pradesh	9207.83	9476.17	9974.92
10.	Maharashtra	3400.89	3532.21	2981.27
11.	Manipur	950.00	779.52	610.02
12.	Orissa	5576.27	5911.86	5200.09
13.	Rajasthan	2341.13	3475.72	2921.81
14.	Sikkim	60.00	60.00	86.47
15.	Tamil Nadu	243.71	295.91	258.85
16.	Tripura	885.00	977.77	833.44
17.	Uttar Pradesh	112.91	57.54	121.13
18.	West Bengal	1600.39	2222.10	1763.37
19.	A&N Islands	118.00	133.90	140.95
20.	Daman & Diu	50.75	66.10	69.58
	TOTAL	**32961.00**	**38000.00**	**40000.00**

* Allocation
Source: Ministry of Social Justice & Empowerment

ANNEXURE- 2

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis)

(Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
1.	**Andhra Pradesh**													
	Ninth Plan (Agreed Outlay)	505.39	1,922.49	946.22	6,006.80	5,752.37	962.13	2,416.47	0.00	17.43	64.46	6,460.07	96.17	25,150.00
		(2.01)	(7.64)	(3.76)	(23.88)	(22.87)	(3.83)	(9.61)		(0.07)	(0.26)	(25.69)	(0.38)	(100.00)
	Annual Plan 1997-98													
	Approved outlay	128.40	230.00	175.00	855.00	918.00	42.44	289.30	0.00	2.50	8.60	916.71	13.60	3,579.55
		(3.59)	(6.43)	(4.89)	(23.89)	(25.65)	(1.19)	(8.08)		(0.07)	(0.24)	(25.61)	(0.38)	(100.00)
	Actual Expenditure	178.53	195.15	282.08	795.75	858.65	65.74	376.33	0.00	0.32	39.50	893.96	21.23	3,707.24
		(4.82)	(5.26)	(7.61)	(21.46)	(23.16)	(1.77)	(10.15)		(0.01)	(1.07)	(24.11)	(0.57)	(100.00)
	Annual Plan 1998-99	170.77	363.92	454.89	1,000.81	901.68	80.44	435.96	0.00	7.24	54.40	1,186.31	22.53	4,678.95
	Approved outlay	(3.65)	(7.78)	(9.72)	(21.39)	(19.27)	(1.72)	(9.32)		(0.15)	(1.16)	(25.35)	(0.48)	(100.00)
	Actual Expenditure	204.96	388.62	493.16	931.49	797.46	92.60	539.78	0.00	6.84	67.56	1,425.08	24.40	4,971.97
		(4.12)	(7.82)	(9.92)	(18.73)	(16.04)	(1.86)	(10.86)		(0.14)	(1.36)	(28.66)	(0.49)	(100.00)
	Annual Plan 1999-2000	181.27	334.08	522.79	1,313.77	868.31	60.44	794.31	0.00	7.43	88.50	1,281.78	27.32	5.480.00
	Approved outlay	(3.31)	(6.10)	(9.54)	(23.97)	(15.85)	(1.10)	(14.49)		(0.14)	(1.61)	(23.39)	(0.50)	(100.00)
	Revised outlay #	181.27	334.08	522.79	1,313.77	868.31	60.44	794.31	0.00	7.43	88.50	1,281.78	27.32	5,480.00
		(3.31)	(6.10)	(9.54)	(23.97)	(15.85)	(1.10)	(14.49)		(0.14)	(1.61)	(23.39)	(0.50)	(100.00)
	# :Revision not sought by the State Govt; Approved Outlay repeated.													
2.	**Arunachal Pradesh**													
	Ninth Plan (Agreed Outlay)	341.70	114.76	20.00	279.95	460.41	46.10	929.51	0.00	1.55	116.50	1,177.61	81.80	3,569.89
		(9.57)	(3.21)	(0.56)	(7.84)	(12.90)	(1.29)	(26.04)		(0.04)	(3.26)	(32.99)	(2.29)	(100.00)
	Annual Plan 1997-98	60.81	23.93	4.00	33.36	97.70	10.06	155.62	0.00	0.35	17.64	182.00	14.53	600.00
	Approved outlay	(10.14)	(3.99)	(0.67)	(5.56)	(16.28)	(1.68)	(25.94)		(0.06)	(2.94)	(30.33)	(2.42)	(100.00)
	Actual Expenditure	49.05	18.37	3.99	21.83	85.80	7.44	132.45	0.00	0.27	15.16	143.24	11.78	489.38
		(10.02)	(3.75)	(0.82)	(4.46)	(17.53)	(1.52)	(27.06)		(0.06)	(3.10)	(29.27)	(2.41)	(100.00)
	Annual Plan 1998-99	146.11	29.24	4.00	27.71	74.99	8.68	135.45	0.00	0.26	14.93	161.75	21.88	625.00
	Approved outlay	(23.38)	(4.68)	(0.64)	(4.43)	(12.00)	(1.39)	(21.67)		(0.04)	(2.39)	(25.88)	(3.50)	(100.00)
	Actual Expenditure	41.25	19.21	11.00	18.85	73.13	7.34	125.98	0.00	0.25	12.81	142.00	11.21	463.03
		(8.91)	(4.15)	(2.38)	(4.07)	(15.79)	(1.59)	(27.21)		(0.05)	(2.77)	(30.67)	(2.42)	(100.00)
	Annual Plan 1999-2000	52.77	25.16	13.00	27.63	73.44	6.33	122.39	0.00	0.29	17.54	156.05	170.40	665.00
	Approved outlay	(7.94)	(3.78)	(1.95)	(4.15)	(11.04)	(0.95)	(18.40)		(0.04)	(2.64)	(23.47)	(25.62)	(100.00)
	Anti. Expenditure	51.12	14.38	13.00	25.58	80.63	5.64	117.69	0.00	0.31	17.65	162.25	13.21	501.46
		(10.19)	(2.87)	(2.59)	(5.10)	(16.08)	(1.12)	(23.47)		(0.06)	(3.52)	(32.36)	(2.63)	(100.00)

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis)

(Rs. Crore)

SL	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
3.	**Assam**													
	Ninth Plan (Agreed Outlay)	1,094.86	807.71	40.12	710.42	852.72	380.04	996.99	0.00	18.00	252.37	3,658.03	172.67	8,983.93
		(12.19)	(8.99)	(0.45)	(7.91)	(9.49)	(4.23)	(11.10)		(0.20)	(2.81)	(40.72)	(1.92)	(100.00)
	Annual Plan 1997-98	162.88	131.28	9.51	127.69	162.49	70.02	134.64	0.00	2.50	41.32	633.67	34.28	1,510.28
	Approved outlay	(10.78)	(8.69)	(0.63)	(8.45)	(10.76)	(4.64)	(8.91)		(0.17)	(2.74)	(41.96)	(2.27)	(100.00)
	Actual Expenditure	134.13	76.60	7.82	139.47	113.40	56.32	93.59	0.00	0.43	38.89	601.63	20.90	1,283.18
		(10.45)	(5.97)	(0.61)	(10.87)	(8.84)	(4.39)	(7.29)		(0.03)	(3.03)	(46.89)	(1.63)	(100.00).
	Annual Plan 1998-99	167.81	154.18	10.84	146.05	162.49	70.69	149.39	0.00	2.80	44.77	702.36	38.62	1,650.00
	Approved outlay	(10.17)	(9.34)	(0.66)	(8.85)	(9.85)	(4.28)	(9.05)		(0.17)	(2.71)	(42.57)	(2.34)	(100.00)
	Actual Expenditure	123.26	90.63	8.50	124.27	83.86	59.40	113.85	0.00	0.64	40.29	613.78	35.19	1,293.67
		(9.53)	(7.01)	(0.66)	(9.61)	(6.48)	(4.59)	(8.80)		(0.05)	(3.11)	(47.44)	(2.72)	(100.00)
	Annual Plan 1999-2000	202.63	173.16	13.10	142.45	176.00	58.92	178.37	0.00	2.77	46.94	719.05	36.61	1,750.00
	Approved outlay	(11.58)	(9.89)	(0.75)	(8.14)	(10.06)	(3.37)	(10.19)		(0.16)	(2.68)	(41.09)	(2.09)	(100.00)
	Anti. Expenditure	169.10	172.66	13.10	142.45	176.50	58.92	178.37	0.00	2.77	46.94	719.05	36.61	1,716.47
		(9.85)	(10.06)	(0.76)	(8.30)	(10.28)	(3.43)	(10.39)		(0.16)	(2.73)	(41.89)	(2.13)	(100.00)
4.	**Bihar**													
	Ninth Plan (Agreed Outlay)	740.64	4,160.00	272.00	2,700.00	2,300.00	400.00	1,500.00	0.00	150.00	397.36	3,660.00	400.00	16,680.00
		(4.44)	(24.94)	(1.63)	(16.19)	(13.79)	(2.40)	(8.99)		(0.90)	(2.38)	(21.94)	(2.40)	(100.00)
	Annual Plan 1997-98	92.28	826.41	100.00	483.44	105.30	27.78	96.71	0.00	27.17	7.75	458.16	43.42	2,268.42
	Approved outlay	(4.07)	(36.43)	(4.41)	(21.31)	(4.64)	(1.22)	(4.26)		(1.20)	(0.34)	(20.20)	(1.91)	(100.00)
	Actual Expenditure	46.75	691.60	100.14	335.46	51.10	42.75	157.43	0.00	1.53	5.91	253.86	24.90	1,711.43
		(2.73)	(40.41)	(5.85)	(19.60)	(2.99)	(2.50)	(9.20)		(0.09)	(0.35)	(14.83)	(1.45)	(100.00)
	Annual Plan 1998-99	112.21	1,019.29	157.00	626.00	375.00	35.00	566.68	0.00	5.78	112.17	639.99	119.62	3,768.74
	Approved outlay	(2.98)	(27.05)	(4.17)	(16.61)	(9.95)	(0.93)	(15.04)		(0.15)	(2.98)	(16.98)	(3.17)	(100.00)
	Actual Expenditure	49.79	773.96	136.97	427.75	48.83	21.13	290.19	0.00	1.72	100.48	462.81	34.89	2,348.52
		(2.12)	(32.96)	(5.83)	(18.21)	(2.08)	(0.90)	(12.36)		(0.07)	(4.28)	(19.71)	(1.49)	(100.00)
	Annual Plan 1999-2000	82.65	1,158.82	68.00	866.00	109.00	52.00	466.07	0.00	3.50	58.26	659.08	106.62	3,630.00
	Approved outlay	(2.28)	(31.92)	(1.87)	(23.86)	(3.00)	(1.43)	(12.84)		(0.10)	(1.60)	(18.16)	(2.94)	(100.00)
	Anti. Expenditure	50.93	1,158.82	68.00	846.14	109.00	52.00	441.07	0.00	3.50	30.89	603.80	88.31	3,452.46
		(1.48)	(33.57)	(1.97)	(24.51)	(3.16)	(1.51)	(12.78)		(0.10)	(0.89)	(17.49)	(2.56)	(100.00)

ANNEXURE- 2 *(Contd.)*

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis) (Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
5.	**Goa**													
	Ninth Plan (Agreed Outlay)	69.87	21.96	9.51	278.10	130.20	34.55	207.40	0.00	4.62	25.38	692.47	25.94	1,500.00
		(4.66)	(1.46)	(0.63)	(18.54)	(8.68)	(2.30)	(13.83)		(0.31)	(1.69)	(46.16)	(1.73)	(100.00)
	Annual Plan 1997-98	8.79	2.70	2.32	41.14	20.04	3.86	29.03	0.00	0.60	3.30	112.58	6.20	230.56
	Approved outlay	(3.81)	(1.17)	(1.01)	(17.84)	(8.69)	(1.67)	(12.59)		(0.26)	(1.43)	(48.83)	(2.69)	(100.00)
	Actual Expenditure	8.80	4.42	2.26	29.14	18.27	3.91	29.21	0.00	0.37	3.69	86.13	11.85	198.05
		(4.44)	(2.23)	(1.14)	(14.71)	(9.22)	(1.97)	(14.75)		(0.19)	(1.86)	(43.49)	(5.98)	(100.00)
	Annual Plan 1998-99	8.50	3.34	2.95	83.47	14.16	2.42	41.18	0.00	0.45	2.56	112.58	19.73	291.34
	Approved outlay	(2.92)	(1.15)	(1.01)	(28.65)	(4.86)	(0.83)	(14.13)		(0.15)	(0.88)	(38.64)	(6.77)	(100.00)
	Actual Expenditure	9.78	4.23	2.92	28.47	24.18	2.84	28.16	0.00	0.42	3.54	102.00	13.94	220.48
		(4.44)	(1.92)	(1.32)	(12.91)	(10.97)	(1.29)	(12.77)		(0.19)	(1.61)	(46.26)	(6.32)	(100.00)
	Annual Plan 1999-2000	9.55	5.28	2.95	64.05	30.50	2.68	29.09	0.00	0.45	2.99	123.01	10.64	281.19
	Approved outlay	(3.40)	(1.88)	(1.05)	(22.78)	(10.85)	(0.95)	(10.35)		(0.16)	(1.06)	(43.75)	(3.78)	(100.00)
	Anti. Expenditure	8.99	5.03	3.20	28.17	34.36	2.68	19.11	0.00	0.81	3.91	120.76	12.86	239.88
		(3.75)	(2.10)	(1.33)	(11.74)	(14.32)	(1.12)	(7.97)		(0.34)	(1.63)	(50.34)	(5.36)	(100.00)
6.	**Gujarat**													
	Ninth Plan (Agreed Outlay)	2,009.70	1,160.50	0.00	8,381.55	4,041.00	1,205.00	726.00	25.00	57.25	726.25	9,648.85	18.90	28,000.00
		(7.18)	(4.14)		(29.93)	(14.43)	(4.30)	(2.59)	(0.09)	(0.20)	(2.59)	(34.46)	(0.07)	(100.00)
	Annual Plan 1997-98	317.62	200.59	0.00	1,374.00	631.78	141.00	169.56	4.50	9.37	116.16	1,543.34	1.70	4,509.62
	Approved outlay	(7.04)	(4.45)		(30.47)	(14.01)	(3.13)	(3.76)	(0.10)	(0.21)	(2.58)	(34.22)	(0.04)	(100.00)
	Actual Expenditure	287.98	197.33	0.00	1,376.42	666.78	113.82	181.07	0.00	10.37	113.99	956.18	1.12	3,905.06
		(7.37)	(5.05)		(35.25)	(17.07)	(2.91)	(4.64)		(0.27)	(2.92)	(24.49)	(0.03)	(100.00)
	Annual Plan 1998-99	350.60	306.79	0.00	1,417.43	817.25	268.32	299.00	7.85	10.12	171.75	1,799.31	1.58	5,450.00
	Approved outlay	(6.43)	(5.63)		(26.01)	(15.00)	(4.92)	(5.49)	(0.14)	(0.19)	(3.15)	(33.01)	(0.03)	(100.00)
	Actual Expenditure	324.32	241.10	0.00	1,597.90	847.14	251.47	254.31	0.00	7.75	164.67	1,386.63	9.71	5,085.00
		(6.38)	(4.74)		(31.42)	(16.66)	(4.95)	(5.00)		(0.15)	(3.24)	(27.27)	(0.19)	(100.00)
	Annual Plan 1999-2000	414.90	307.16	0.00	1,832.30	817.00	297.90	418.53	9.00	51.86	198.04	2,199.73	3.58	6,550.00
	Approved outlay	(6.33)	(4.69)		(27.97)	(12.47)	(4.55)	(6.39)	(0.14)	(0.79)	(3.02)	(33.58)	(0.05)	(100.00)
	Revised outlay	414.81	277.38	0.00	1,832.30	817.00	297.90	438.53	9.00	51.86	198.04	2,199.73	13.45	6,550.00
		(6.33)	(4.23)		(27.97)	(12.47)	(4.55)	(6.70)	(0.14)	(0.79)	(3.02)	(33.58)	(0.21)	(100.00)

ANNEXURE- 2 *(Contd.)*

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis) (Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
7.	**Haryana**													
	Ninth Plan (Agreed Outlay)	562.43	312.63	85.80	1,673.19	2,652.55	144.68	1,110.28	0.00	12.04	68.65	2,645.22	42.53	9,310.00
		(6.04)	(3.36)	(0.92)	(17.97)	(28.49)	(1.55)	(11.93)		(0.13)	(0.74)	(28.41)	(0.46)	(100.00)
	Annual Plan 1997-98	105.13	57.00	22.90	417.72	288.38	27.77	154.92	0.00	2.54	10.85	478.85	9.98	1,576.04
	Approved outlay	(6.67)	(3.62)	(1.45)	(26.50)	(18.30)	(1.76)	(9.83)		(0.16)	(0.69)	(30.38)	(0.63)	(100.00)
	Actual Expenditure	104.81	37.52	6.15	277.60	287.75	78.60	72.84	0.00	1.33	9.81	415.03	12.17	1,303.61
		(8.04)	(2.88)	(0.47)	(21.29)	(22.07)	(6.03)	(5.59)		(0.10)	(0.75)	(31.84)	(0.93)	(100.00)
	Annual Plan 1998-99	127.35	74.76	18.44	550.81	506.08	115.54	190.61	0.00	4.24	60.68	590.00	21.49	2,260.00
	Approved outlay	(5.63)	(3.31)	(0.82)	(24.37)	(22.39)	(5.11)	(8.43)		(0.19)	(2.68)	(26.11)	(0.95)	(100.00)
	Actual Expenditure	79.83	31.07	13.63	307.08	430.50	79.89	62.28	0.00	1.46	17.63	481.96	17.58	1,522.91
		(5.24)	(2.04)	(0.89)	(20.16)	(28.27)	(5.25)	(4.09)		(0.10)	(1.16)	(31.65)	(1.15)	(100.00)
	Annual Plan 1999-2000	118.08	46.55	21.50	581.00	500.80	71.10	390.20	0.00	3.30	24.69	525.43	17.35	2,300.00
	Approved outlay	(5.13)	(2.02)	(0.93)	(25.26)	(21.77)	(3.09)	(16.97)		(0.14)	(1.07)	(22.84)	(0.75)	(100.00)
	Revised outlay	99.27	86.44	12.20	426.00	485.63	35.26	65.10	0.00	1.45	12.48	537.38	23.79	1,785.00
		(5.56)	(4.84)	(0.68)	(23.87)	(27.21)	(1.98)	(3.65)		(0.08)	(0.70)	(30.11)	(1.33)	(100.00).
8.	**Himachal Pradesh**													
	Ninth Plan (Agreed Outlay)	842.80	252.98	0.00	258.85	1,039.30	150.00	613.50	1.20	7.09	322.84	2,106.43	105.01	5,700.00
		(14.79)	(4.44)		(4.54)	(18.23)	(2.63)	(10.76)	(0.02)	(0.12)	(5.66)	(36.95)	(1.84)	(100.00)
	Annual Plan 1997-98	132.84	48.60	0.00	50.19	167.14	25.00	109.13	0.20	1.26	57.37	396.50	19.77	1,008.00
	Approved outlay	(13.18)	(4.82)		(4.98)	(16.58)	(2.48)	(10.83)	(0.02)	(0.13)	(5.69)	(39.34)	(1.96)	(100.00)
	Actual Expenditure	151.96	57.52	0.00	56.21	236.93	34.52	128.39	0.09	1.90	162.65	436.58	27.59	1,294.34
		(11.74)	(4.44)		(4.34)	(18.31)	(2.67)	(9.92)	(0.01)	(0.15)	(12.57)	(33.73)	(2.13)	(100.00)
	Annual Plan 1998-99	183.00	67.37	0.00	65.70	223.51	27.39	195.99	0.20	1.50	71.57	568.43	35.34	1,440.00
	Approved outlay	(12.71)	(4.68)		(4.56)	(15.52)	(1.90)	(13.61)	(0.01)	(0.10)	(4.97)	(39.47)	(2.45)	(100.00)
	Actual Expenditure	183.87	61.02	4.00	60.61	263.68	25.61	192.98	0.10	1.97	149.27	560.56	31.99	1,535.66
		(12.77)	(4.24)	(0.26)	(4.21)	(18.31)	(1.78)	(13.40)	(0.01)	(0.14)	(10.37)	(38.93)	(2.22)	(106.64)
	Annual Plan 1999-2000	202.04	71.23	4.00	80.15	249.62	30.24	230.42	0.32	1.60	89.38	615.72	25.28	1,600.00
	Approved outlay	(12.63)	(4.45)	(0.25)	(5.01)	(15.60)	(1.89)	(14.40)	(0.02)	(0.10)	(5.59)	(38.48)	(1.58)	(100.00)
	Anti. Expenditure	202.03	68.71	4.00	80.15	252.15	30.24	230.42	0.32	1.60	89.37	615.73	25.28	1,600.00
		(12.63)	(4.29)	(0.25)	(5.01)	(15.76)	(1.89)	(14.40)		(0.10)	(5.59)	(38.48)	(1.58)	(100.00)

ANNEXURE- 2 *(Contd.)*

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis)

(Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
9.	**Jammu & Kashmir**													
	Ninth Plan (Agreed Outlay)													
	Annual Plan 1997-98	152.00	60.37	60.20	88.62	394.70	65.11	152.80	0.00	5.44	128.16	420.86	23.55	1,551.81
	Approved outlay	(9.80)	(3.89)	(3.88)	(5.71)	(25.43)	(4.20)	(9.85)		(0.35)	(8.26)	(27.12)	(1.52)	(100.00)
	Actual Expenditure	153.48	60.57	90.98	68.62	252.47	44.19	222.60	0.00	3.28	55.80	441.87	102.43	1,496.29
		(10.26)	(4.05)	(6.08)	(4.59)	(16.87)	(2.95)	(14.88)		(0.22)	(3.73)	(29.53)	(6.85)	(100.00)
	Annual Plan 1998-99	194.56	80.61	88.39	153.85	337.26	70.89	185.77	0.00	5.42	195.57	549.30	38.38	1,900.00
	Approved outlay	(10.24)	(4.24)	(4.65)	(8.10)	(17.75)	(3.73)	(9.78)		(0.29)	(10.29)	(28.91)	(2.02)	(100.00)
	Actual Expenditure	159.99	32.41	87.42	75.37	220.57	41.66	125.46	0.00	3.73	46.15	446.65	20.21	1,259.62
		(12.70)	(2.57)	(6.94)	(5.98)	(17.51)	(3.31)	(9.96)		(0.30)	(3.66)	(35.46)	(1.60)	(100.00)
	Annual Plan 1999-2000	185.49	75.41	94.63	150.35	309.82	55.49	198.24	0.00	6.04	124.63	522.44	27.46	1,750.00
	Approved outlay	(10.60)	(4.31)	(5.41)	(8.59)	(17.70)	(3.17)	(11.33)		(0.35)	(7.12)	(29.85)	(1.57)	(100.00)
	Revised outlay	190.10	69.69	98.64	150.39	316.87	56.62	204.11	0.00	4.92	109.81	527.88	28.97	1,758.00
		(10.81)	(3.96)	(5.61)	(8.55)	(18.02)	(3.22)	(11.61)		(0.28)	(6.25)	(30.03)	(1.65)	(100.00)
10.	**Karnataka**													
	Ninth Plan (Agreed Outlay)	1,464.00	1,173.97	555.00	6,170.00	3,745.00	1,026.00	1,740.00	0.00	40.00	105.00	7,206.03	175.00	23,400.00
		(6.26)	(5.02)	(2.37)	(26.37)	(16.00)	(4.38)	(7.44)		(0.17)	(0.45)	(30.80)	(0.75)	(100.00)
	Annual Plan 1997-98	208.93	232.18	93.87	1,136.01	614.32	181.93	282.03	0.00	7.06	15.37	1,349.91	31.98	4,153.59
	Approved outlay	(5.03)	(5.59)	(2.26)	(27.35)	(14.79)	(4.38)	(6.79)		(0.17)	(0.37)	(32.50)	(0.77)	(100.00)
	Actual Expenditure	234.72	185.36	71.88	1,412.76	570.37	203.44	335.52	0.00	3.52	12.27	1,342.03	52.61	4,424.48
		(5.31)	(4.19)	(1.62)	(31.93)	(12.89)	(4.60)	(7.58)		(0.08)	(0.28)	(30.33)	(1.19)	(100.00)
	Annual Plan 1998-99	268.31	253.40	109.00	1,629.06	869.94	146.69	343.17	0.00	319.47	125.29	1,553.41	49.60	5,667.34
	Approved outlay	(4.73)	(4.47)	(1.92)	(28.74)	(15.35)	(2.59)	(6.06)		(5.64)	(2.21)	(27.41)	(0.88)	(100.00)
	Actual Expenditure	303.58	243.31	59.46	1,558.27	1,094.97	220.08	319.47	4.66	5.17	134.38	1,632.51	79.01	5,654.87
		(5.37)	(4.30)	(1.05)	(27.56)	(19.36)	(3.89)	(5.65)		(0.09)	(2.38)	(28.87)	(1.40)	(100.00)
	Annual Plan 1999-2000	303.35	244.19	116.28	1,787.38	992.36	155.55	327.70	0.00	5.05	129.95	1,689.43	48.76	5,800.00
	Approved outlay	(5.23)	(4.21)	(2.00)	(30.82)	(17.11)	(2.68)	(5.65)		(0.09)	(2.24)	(29.13)	(0.84)	(100.00)
	Anti. Expenditure	249.65	227.00	100.53	1,628.81	835.41	166.02	275.14	0.00	5.27	131.23	1,567.59	44.70	5,231.35
		(4.77)	(4.34)	(1.92)	(31.14)	(15.97)	(3.17)	(5.26)		(0.10)	(2.51)	(29.97)	(0.85)	(100.00)

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis) (Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
11.	**Kerala**													
	Ninth Plan (Agreed Outlay)	1,039.50	392.90	47.00	1,028.00	2,671.00	1,125.86	569.00	0.00	75.00	185.00	2,863.74	103.00	16,100.00
		(6.46)	(2.44)	(0.29)	(6.39)	(16.59)	(6.99)	(3.53)		(0.47)	(1.15)	(17.79)	(0.64)	(100.00)
	Annual Plan 1997-98	207.27	91.56	0.00	232.15	627.00	211.33	116.00	0.00	14.00	45.18	509.71	47.90	2,851.10
	Approved outlay	(7.27)	(3.21)		(8.14)	(21.99)	(7.41)	(4.07)		(0.49)	(1.58)	(17.88)	(1.68)	(100.00)
	Actual Expenditure	217.79	58.50	0.00	228.92	535.87	231.15	230.81	0.00	12.03	43.68	519.82	47.18	2,874.75
		(7.58)	(2.03)		(7.96)	(18.64)	(8.04)	(8.03)		(0.42)	(1.52)	(18.08)	(1.64)	(100.00)
	Annual Plan 1998-99	237.80	70.34	11.91	230.00	650.00	225.00	130.00	0.00	17.00	56.35	493.60	28.00	3,100.00
	Approved outlay	(7.67)	(2.27)	(0.38)	(7.42)	(20.97)	(7.26)	(4.19)		(0.55)	(1.82)	(15.92)	(0.90)	(100.00)
	Actual Expenditure	215.56	55.85	11.75	203.20	808.37	178.62	166.88	0.00	15.71	47.33	417.37	44.58	3,115.22
		(6.92)	(1.79)	(0.38)	(6.52)	(25.95)	(5.73)	(5.36)		(0.50)	(1.52)	(13.40)	(1.43)	(100.00)
	Annual Plan 1999-2000	258.50	90.56	13.08	241.72	650.00	225.20	134.00	0.00	17.80	47.88	520.24	1,051.02	3,250.00
	Approved outlay	(7.95)	(2.79)	(0.40)	(7.44)	(20.00)	(6.93)	(4.12)		(0.55)	(1.47)	(16.01)	(32.34)	(100.00)
	Revised outlay	226.20	66.06	13.48	223.12	574.00	210.10	131.60	0.00	17.80	55.28	483.79	1,009.02	3,010.45
		(7.51)	(2.19)	(0.45)	(7.41)	(19.07)	(6.98)	(4.37)		(0.59)	(1.84)	(16.07)	(33.52)	(100.00).
12.	**Madhya Pradesh**													
	Ninth Plan (Agreed Outlay)	1,129.50	2,005.59	0.00	2,722.02	3,479.46	1,112.97	562.92	0.00	210.20	317.53	8,506.69	28.12	20,075.00
		(5.63)	(9.99)		(13.56)	(17.33)	(5.54)	(2.80)		(1.05)	(1.58)	(42.37)	(0.14)	(100.00)
	Annual Plan 1997-98	337.93	379.59	0.00	487.56	644.07	208.38	135.21	0.00	60.39	67.95	1,329.64	67.43	3,718.15
	Approved outlay	(9.09)	(10.21)		(13.11)	(17.32)	(5.60)	(3.64)		(1.62)	(1.83)	(35.76)	(1.81)	(100.00)
	Actual Expenditure	414.39	339.05	0.00	519.65	742.45	59.31	64.59	0.00	16.98	66.97	1,108.15	12.37	3,343.91
		(12.39)	(10.14)		(15.54)	(22.20)	(1.77)	(1.93)		(0.51)	(2.00)	(33.14)	(0.37)	(100.00)
	Annual Plan 1998-99	312.79	352.89	0.00	652.66	666.16	72.86	115.43	0.00	54.75	67.23	1,392.94	12.29	3,700.00
	Approved outlay	(8.45)	(9.54)		(17.64)	(18.00)	(1.97)	(3.12)		(1.48)	(1.82)	(37.65)	(0.33)	(100.00)
	Actual Expenditure	345.89	333.91	0.00	621.40	706.36	35.55	73.69	0.00	22.79	64.34	1,156.75	5.75	3,366.43
		(10.27)	(9.92)		(18.46)	(20.98)	(1.06)	(2.19)		(0.68)	(1.91)	(34.36)	(0.17)	(100.00)
	Annual Plan 1999-2000	302.25	356.06	0.00	650.67	896.44	74.13	101.84	0.00	54.45	67.30	1,495.99	4.87	4,004.00
	Approved outlay	(7.55)	(8.89)		(16.25)	(22.39)	(1.85)	(2.54)		(1.36)	(1.68)	(37.36)	(0.12)	(100.00)
	Revised outlay	311.20	335.24	0.00	538.05	588.84	50.13	79.21	0.00	22.71	66.74	1,473.89	7.74	3,473.75
		(8.96)	(9.65)		(15.49)	(16.95)	(1.44)	(2.28)		(0.65)	(1.92)	(42.43)	(0.22)	(100.00)

ANNEXURE- 2 *(Contd.)*

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis) (Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
13.	**Maharashtra**													
	Ninth Plan (Agreed Outlay)	1,828.20	3,173.40	191.90	10,928.80	5,596.90	902.60	3,402.50	0.00	13.20	1,001.10	8,733.70	927.70	36,700.00
		(4.98)	(8.65)	(0.52)	(29.78)	(15.25)	(2.46)	(9.27)		(0.04)	(2.73)	(23.80)	(2.53)	(100.00)
	Annual Plan 1997-98	313.14	717.42	60.39	2,733.21	1,458.49	105.11	590.04	0.00	5.66	281.91	1,867.90	259.92	8,393.19
	Approved outlay	(3.73)	(8.55)	(0.72)	(32.56)	(17.38)	(1.25)	(7.03)		(0.07)	(3.36)	(22.25)	(3.10)	(100.00)
	Actual Expenditure	297.46	731.82	47.36	2,009.05	1,910.80	112.94	725.67	0.00	1.53	211.32	1,528.75	361.32	7,938.02
		(3.75)	(9.22)	(0.60)	(25.31)	(24.07)	(1.42)	(9.14)		(0.02)	(2.66)	(19.26)	(4.55)	(100.00)
	Annual Plan 1998-99	330.66	774.46	64.96	3,067.81	1,418.14	112.54	2,279.23	0.00	4.74	287.20	2,981.42	279.57	11,600.73
	Approved outlay	(2.85)	(6.68)	(0.56)	(26.44)	(12.22)	(0.97)	(19.65)		(0.04)	(2.48)	(25.70)	(2.41)	(100.00)
	Actual Expenditure	313.09	821.44	55.80	1,952.08	1,742.44	105.57	908.71	0.00	4.24	319.10	1,660.14	304.88	8,187.49
		(3.82)	(10.03)	(0.68)	(23.84)	(21.28)	(1.29)	(11.10)		(0.05)	(3.90)	(20.28)	(3.72)	(100.00).
	Annual Plan 1999-2000	415.36	1,020.08	72.85	3,881.38	1,688.63	130.44	1,742.90	0.00	4.62	299.84	2,673.97	231.93	12,162.00
	Approved outlay	(3.42)	(8.39)	(0.60)	(31.91)	(13.88)	(1.07)	(14.33)		(0.04)	(2.47)	(21.99)	(1.91)	(100.00)
	Anti. Expenditure	417.16	1,081.61	72.85	3,881.38	1,691.37	130.38	1,760.42	0.00	4.62	299.84	2,665.18	171.93	12,176.74
		(3.43)	(8.88)		(31.88)	(13.89)	(1.07)	(14.46)		(0.04)	(2.46)	(21.89)	(1.41)	(100.00)
	* : Includes provision for others Rs. 251.89 crore.													
14.	**Manipur**													
	Ninth Plan (Agreed Outlay)	183.17	61.20	0.00	320.60	335.34	126.51	399.68	0.00	9.00	133.67	570.19	287.33	2,426.69
		(7.55)	(2.52)		(13.21)	(13.82)	(5.21)	(16.47)		(0.37)	(5.51)	(23.50)	(11.84)	(100.00)
	Annual Plan 1997-98	26.58	11.73	0.00	65.70	43.42	19.77	77.36	0.00	1.16	6.25	119.13	38.90	410.00
	Approved outlay	(6.48)	(2.86)		(16.02)	(10.59)	(4.82)	(18.87)		(0.28)	(1.52)	(29.06)	(9.49)	(100.00)
	Actual Expenditure	21.24	7.24	0.00	49.35	50.37	11.87	73.46	0.00	0.85	14.41	109.56	6.93	345.28
		(6.15)	(2.10)		(14.29)	(14.59)	(3.44)	(21.28)		(0.25)	(4.17)	(31.73)	(2.01)	(100.00)
	Annual Plan 1998-99	28.61	9.28	4.00	81.89	29.20	32.48	67.61	0.00	1.24	14.99	140.40	15.30	425.00
	Approved outlay	(6.73)	(2.18)	(0.94)	(19.27)	(6.87)	(7.64)	(15.91)		(0.29)	(3.53)	(33.04)	(3.60)	(100.00)
	Actual Expenditure	21.13	6.60	0.00	43.60	36.40	13.24	59.24	0.00	1.07	19.93	124.41	7.70	333.32
		(6.34)	(1.98)		(13.08)	(10.92)	(3.97)	(17.77)		(0.32)	(5.98)	(37.32)	(2.31)	(100.00)
	Annual Plan 1999-2000	29.88	10.05	4.00	94.90	30.30	44.84	78.75	0.00	1.50	17.87	149.61	13.30	475.00
	Approved outlay	(6.29)	(2.12)	(0.84)	(19.98)	(6.38)	(9.44)	(16.58)		(0.32)	(3.76)	(31.50)	(2.80)	(100.00)
	Anti. Expenditure	38.89	4.84	4.00	73.11	45.12	17.97	75.38	0.00	1.64	20.32	150.61	13.50	445.38
		(8.73)	(1.09)	(0.90)	(16.42)	(10.13)	(4.03)	(16.92)		(0.37)	(4.56)	(33.82)	(3.03)	(100.00)

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis) (Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Development	Special Area Programe	Irrigation & Flood Control	Energy	Industry & Mineral	Transport	Communication	Science & Technology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
15.	**Meghalaya**													
	Ninth Plan (Agreed Outlay)	391.70	139.50	12.00	98.00	318.00	102.00	481.00	0.00	7.30	50.92	846.20	54.00	2,500.62
		(15.66)	(5.58)	(0.48)	(3.92)	(12.72)	(4.08)	(19.24)		(0.29)	(2.04)	(33.84)	(2.16)	(100.00)
	Annual Plan 1997-98	40.37	21.57	2.28	12.20	92.16	13.34	70.16	0.00	1.20	9.02	111.40	8.30	382.00
	Approved outlay	(10.57)	(5.65)	(0.60)	(3.19)	(24.13)	(3.49)	(18.37)		(0.31)	(2.36)	(29.16)	(2.17)	(100.00)
	Actual Expenditure	28.76	15.54	3.01	9.31	7.99	7.00	66.85	0.00	0.92	6.89	96.97	5.59	248.83
		(11.56)	(6.25)	(1.21)	(3.74)	(3.21)	(2.81)	(26.87)		(0.37)	(2.77)	(38.97)	(2.25)	(100.00)
	Annual Plan 1998-99	44.10	22.53	3.28	18.50	57.11	15.00	77.16	0.00	1.20	10.05	139.67	11.40	400.00
	Approved outlay	(11.03)	(5.63)	(0.82)	(4.63)	(14.28)	(3.75)	(19.29)		(0.30)	(2.51)	(34.92)	(2.85)	(100.00)
	Actual Expenditure	31.96	19.58	5.27	12.21	22.17	10.34	73.54	0.00	1.05	8.12	108.91	6.24	299.39
		(10.68)	(6.54)	(1.76)	(4.08)	(7.41)	(3.45)	(24.56)		(0.35)	(2.71)	(36.38)	(2.08)	(100.00)
	Annual Plan 1999-2000	46.00	23.57	5.48	21.00	78.11	15.00	87.31	0.00	1.43	11.45	161.00	14.65	465.00
	Approved outlay	(9.89)	(5.07)	(1.18)	(4.52)	(16.80)	(3.23)	(18.78)		(0.31)	(2.46)	(34.62)	(3.15)	(100.00)
	Anti. Expenditure	37.04	22.57	8.69	17.50	12.64	13.88	87.15	0.00	1.39	11.20	132.28	10.62	354.96
		(10.43)	(6.36)	(2.45)	(4.93)	(3.56)	(3.91)	(24.55)		(0.39)	(3.16)	(37.27)	(2.99)	(100.00)
16.	**Mizoram**													
	Ninth Plan (Agreed Outlay)	153.25	235.40	0.14	18.11	224.21	68.92	272.27	0.00	3.23	84.67	529.03	29.28	1,618.51
		(9.47)	(14.54)	(0.01)	(1.12)	(13.85)	(4.26)	(16.82)		(0.20)	(5.23)	(32.69)	(1.81)	(100.00)
	Annual Plan 1997-98	28.48	38.45	0.10	2.90	36.00	10.87	59.88	0.00	0.77	18.27	79.67	14.61	290.00
	Approved outlay	(9.82)	(13.26)	(0.03)	(1.00)	(12.41)	(3.75)	(20.65)		(0.27)	(6.30)	(27.47)	(5.04)	(100.00)
	Actual Expenditure	23.39	27.38	0.10	2.04	28.81	8.30	96.76	0.00	0.64	17.96	82.66	7.21	295.25
		(7.92)	(9.27)	(0.03)	(0.69)	(9.76)	(2.81)	(32.77)		(0.22)	(6.08)	(28.00)	(2.44)	(100.00)
	Annual Plan 1998-99	43.70	51.81	0.40	6.38	40.60	11.94	32.99	0.00	0.84	20.67	113.21	10.46	333.00
	Approved outlay	(13.12)	(15.56)	(0.12)	(1.92)	(12.19)	(3.59)	(9.91)		(0.25)	(6.21)	(34.00)	(3.14)	(100.00)
	Actual Expenditure	24.15	36.48	0.23	2.94	25.96	8.67	31.14	0.00	0.48	19.75	118.50	7.36	275.66
		(8.76)	(13.23)	(0.08)	(1.07)	(9.42)	(3.15)	(11.30)		(0.17)	(7.16)	(42.99)	(2.67)	(100.00)
	Annual Plan 1999-2000	38.49	41.56	0.50	7.05	48.76	14.31	49.29	0.00	0.94	21.43	126.06	11.61	360.00
	Approved outlay	(10.69)	(11.54)	(0.14)	(1.96)	(13.54)	(3.98)	(13.69)		(0.26)	(5.95)	(35.02)	(3.23)	(100.00)
	Anti. Expenditure	38.49	42.68	0.50	7.05	48.87	14.31	56.14	0.00	0.94	23.93	135.48	9.00	377.39
		(10.20)	(11.31)	(0.13)	(1.87)	(12.95)	(3.79)	(14.88)		(0.25)	(6.34)	(35.90)	(2.38)	(100.00)

ANNEXURE- 2 *(Contd.)*

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis) (Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
17.	**Nagaland**													
	Ninth Plan (Agreed Outlay)	260.00	291.45	27.00	57.00	117.00	121.02	305.40	0.00	5.00	224.00	514.78	83.78	2,006.43
		(12.96)	(14.53)	(1.35)	(2.84)	(5.83)	(6.03)	(15.22)		(0.25)	(11.16)	(25.66)	(4.18)	(100.00)
	Annual Plan 1997-98	22.63	41.12	5.11	3.93	21.46	11.72	31.46	0.00	0.34	38.86	99.98	14.39	291.00
	Approved outlay	(7.78)	(14.13)	(1.76)	(1.35)	(7.37)	(4.03)	(10.81)		(0.12)	(13.35)	(34.36)	(4.95)	(100.00)
	Actual Expenditure	14.86	37.17	4.94	3.68	15.54	9.51	18.67	0.00	0.18	35.02	84.93	7.83	232.33
		(6.40)	(16.00)	(2.13)	(1.58)	(6.69)	(4.09)	(8.04)		(0.08)	(15.07)	(36.56)	(3.37)	(100.00)
	Annual Plan 1998-99	23.17	44.05	8.72	4.50	15.20	10.05	27.38	0.00	0.30	38.69	108.29	19.65	300.00
	Approved outlay	(7.72)	(14.68)	(2.91)	(1.50)	(5.07)	(3.35)	(9.13)		(0.10)	(12.90)	(36.10)	(6.55)	(100.00)
	Revised outlay	23.17	44.05	8.72	4.50	15.20	10.05	27.38	0.00	0.30	38.69	108.29	19.65	300.00
		(7.72)	(14.68)	(2.91)	(1.50)	(5.07)	(3.35)	(9.13)		(0.10)	(12.90)	(36.10)	(6.55)	(100.00)
	Annual Plan 1999-2000	26.87	52.55	8.72	4.50	9.00	10.05	33.88	0.00	2.30	38.19	106.00	22.94	315.00
	Approved outlay	(8.53)	(16.68)	(2.77)	(1.43)	(2.86)	(3.19)	(10.76)		(0.73)	(12.12)	(33.65)	(7.28)	(100.00)
	Revised outlay	24.50	50.66	8.72	9.61	9.67	16.31	34.25	0.00	2.27	38.33	104.38	21.80	320.50
		(7.64)	(15.81)	(2.72)	(3.00)	(3.02)	(5.09)	(10.69)		(0.71)	(11.96)	(32.57)	(6.80)	(100.00)
18.	**Orissa**													
	Ninth Plan (Agreed Outlay)	562.88	945.52	0.00	3,388.58	4,627.64	123.49	1,278.73	0.00	75.76	551.30	3,364.83	81.27	15,000.00
		(3.75)	(6.30)		(22.59)	(30.85)	(0.82)	(8.52)		(0.51)	(3.68)	(22.43)	(0.54)	(100.00)
	Annual Plan 1997-98	121.61	132.89	0.00	666.00	605.57	36.19	198.81	0.00	10.02	14.56	724.49	19.32	2,529.46
	Approved outlay	(4.81)	(5.25)		(26.33)	(23.94)	(1.43)	(7.86)		(0.40)	(0.58)	(28.64)	(0.76)	(100.00)
	Actual Expenditure	124.12	187.63	0.00	623.69	154.42	58.02	158.22	0.00	7.96	23.37	688.36	11.34	2,037.13
		(6.09)	(9.21)		(30.62)	(7.58)	(2.85)	(7.77)		(0.39)	(1.15)	(33.79)	(0.56)	(100.00)
	Annual Plan 1998-99	152.99	228.56	0.00	715.77	871.22	54.92	175.62	0.00	14.18	67.02	778.97	25.18	3,084.43
	Approved outlay	(4.96)	(7.41)		(23.21)	(28.25)	(1.78)	(5.69)		(0.46)	(2.17)	(25.25)	(0.82)	(100.00)
	Actual Expenditure	120.66	216.92	0.00	617.43	436.85	47.27	146.01	0.00	26.36	28.76	856.38	18.78	2,515.42
		(4.80)	(8.62)		(24.55)	(17.37)	(1.88)	(5.80)		(1.05)	(1.14)	(34.05)	(0.75)	(100.00)
	Annual Plan 1999-2000	132.65	273.87	0.00	652.52	1,035.14	39.17	275.13	0.00	14.80	50.16	814.84	20.89	3,309.17
	Approved outlay	(4.01)	(8.28)		(19.72)	(31.28)	(1.18)	(8.31)		(0.45)	(1.52)	(24.62)	(0.63)	(100.00)
	Revised outlay	84.53	277.42	0.00	611.81	576.62	17.12	99.02	0.00	13.61	35.08	773.93	20.99	2,510.13
		(3.37)	(11.05)		(24.37)	(22.97)	(0.68)	(3.94)		(0.54)	(1.40)	(30.83)	(0.84)	(100.00)

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis)

(Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
19.	**Punjab**													
	Ninth Plan (Agreed Outlay)	644.76	805.39	13.47	1,285.24	2,956.62	281.30	594.69	0.00	43.28	911.65	3,796.02	167.58	11,500.00
		(5.61)	(7.00)	(0.12)	(11.18)	(25.71)	(2.45)	(5.17)		(0.38)	(7.93)	(33.01)	(1.46)	(100.00)
	Annual Plan 1997-98	74.12	109.33	13.18	231.96	794.91	51.49	65.17	0.00	2.52	83.82	638.91	34.60	2,100.01
	Approved outlay	(3.53)	(5.21)	(0.63)	(11.05)	(37.85)	(2.45)	(3.10)		(0.12)	(3.99)	(30.42)	(1.65)	(100.00)
	Actual Expenditure	48.60	70.65	12.23	172.79	1,142.68	38.10	43.19	0.00	0.36	34.59	416.31	29.30	2,008.80
		(2.42)	(3.52)	(0.61)	(8.60)	(56.88)	(1.90)	(2.15)		(0.02)	(1.72)	(20.72)	(1.46)	(100.00)
	Annual Plan 1998-99	127.11	116.53	13.15	302.01	840.74	53.01	85.97	0.00	4.15	76.08	846.98	34.27	2,500.00
	Approved outlay	(5.08)	(4.66)	(0.53)	(12.08)	(33.63)	(2.12)	(3.44)		(0.17)	(3.04)	(33.88)	(1.37)	(100.00)
	Actual Expenditure	77.20	45.89	10.90	254.06	1,049.98	13.39	54.98	0.00	0.56	21.00	454.79	23.41	2,006.16
		(3.85)	(2.29)	(0.54)	(12.66)	(52.34)	(0.67)	(2.74)		(0.03)	(1.05)	(22.67)	(1.17)	(100.00)
	Annual Plan 1999-2000	151.06	150.03	34.73	320.08	632.61	56.94	177.79	0.00	4.22	72.92	1,009.12	70.50	2,680.00
	Approved outlay	(5.64)	(5.60)	(1.30)	(11.94)	(23.60)	(2.12)	(6.63)		(0.16)	(2.72)	(37.65)	(2.63)	(100.00)
	Revised outlay	141.48	172.99	20.60	320.09	683.43	24.40	174.03	0.00	3.91	72.92	1,022.03	44.13	2,680.01
		(5.28)	(6.45)	(0.77)	(11.94)	(25.50)	(0.91)	(6.49)		(0.15)	(2.72)	(38.14)	(1.65)	(100.00)
20.	Rajasthan													
	Ninth Plan (Agreed Outlay)	1,531.56	1,926.10	114.54	2,525.86	5,318.25	1,753.38	2,190.82	0.00	31.28	300.24	6,125.85	707.95	22,525.83
		(6.80)	(8.55)	(0.51)	(11.21)	(23.61)	(7.78)	(9.73)		(0.14)	(1.33)	(27.19)	(3.14)	(100.00)
	Annual Plan 1997-98	316.98	287.25	27.80	523.25	755.24	224.22	323.32	0.00	6.95	26.23	901.74	121.44	3,514.42
	Approved outlay	(9.02)	(8.17)	(0.79)	(14.89)	(21.49)	(6.38)	(9.20)		(0.20)	(0.75)	(25.66)	(3.46)	(100.00)
	Actual Expenditure	274.54	253.46	26.95	492.86	1,502.13	188.01	379.79	0.00	3.86	18.30	812.98	34.47	3,987.35
		(6.89)	(6.36)	(0.68)	(12.36)	(37.67)	(4.72)	(9.52)		(0.10)	(0.46)	(20.39)	(0.86)	(100.00)
	Annual Plan 1998-99	364.31	301.93	28.42	658.34	805.32	250.47	506.80	0.00	6.80	25.30	1,225.37	126.94	4,300.00
	Approved outlay	(8.47)	(7.02)	(0.66)	(15.31)	(18.73)	(5.82)	(11.79)		(0.16)	(0.59)	(28.50)	(2.95)	(100.00)
	Anti. Expenditure	290.37	286.89	28.91	564.98	796.34	174.80	385.58	0.00	3.38	15.04	1,252.08	34.46	3,832.83
		(7.58)	(7.49)	(0.75)	(14.74)	(20.78)	(4.56)	(10.06)		(0.09)	(0.39)	(32.67)	(0.90)	(100.00)
	Annual Plan 1999-2000	336.69	324.40	38.62	643.47	897.56	195.88	617.83	0.00	4.22	89.15	1,563.42	38.76	4,750.00
	Approved outlay	(7.09)	(6.83)	(0.81)	(13.55)	(18.90)	(4.12)	(13.01)		(0.09)	(1.88)	(32.91)	(0.82)	(100.00)
	Anti. Expenditure	220.69	311.97	57.52	449.29	924.92	114.83	301.80	0.00	1.24	7.95	1,365.16	34.63	3,790.00
		(5.82)	(8.23)	(1.52)	(11.85)	(24.40)	(3.03)	(7.96)		(0.03)	(0.21)	(36.02)	(0.91)	(100.00)

ANNEXURE-2 *(Contd.)*

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis) (Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
21.	**Sikkim**													
	Ninth Plan (Agreed Outlay)	205.40	54.50	0.00	41.00	343.00	70.00	160.00	0.00	11.00	53.75	616.35	45.00	1,600.00
		(12.84)	(3.41)		(2.56)	(21.44)	(4.38)	(10.00)		(0.69)	(3.36)	(38.52)	(2.81)	(100.00)
	Annual Plan 1997-98	37.80	10.04	0.00	2.96	31.37	9.26	23.27	0.00	0.80	3.85	95.76	4.89	220.00
	Approved outlay	(17.18)	(4.56)		(1.35)	(14.26)	(4.21)	(10.58)		(0.36)	(1.75)	(43.53)	(2.22)	(100.00)
	Actual Expenditure	18.89	7.91	0.00	3.25	32.18	4.41	23.91	0.00	0.76	3.10	88.90	4.60	187.91
		(10.05)	(4.21)		(1.73)	(17.13)	(2.35)	(12.72)		(0.40)	(1.65)	(47.31)	(2.45)	(100.00)
	Annual Plan 1998-99	19.70	9.47	0.00	2.66	38.89	6.63	25.16	0.00	1.10	4.79	121.17	7.43	237.00
	Approved outlay	(8.31)	(4.00)		(1.12)	(16.41)	(2.80)	(10.62)		(0.46)	(2.02)	(51.13)	(3.14)	(100.00)
	Actual Expenditure	18.21	8.29	0.00	5.35	33.00	4.69	20.13	0.00	0.86	4.04	117.60	4.68	216.85
		(8.40)	(3.82)		(2.47)	(15.22)	(2.16)	(9.28)		(0.40)	(1.86)	(54.23)	(2.16)	(100.00)
	Annual Plan 1999-2000	20.09	8.12	0.00	20.52	42.44	5.37	20.49	0.00	1.17	4.74	122.69	4.37	250.00
	Approved outlay	(8.04)	(3.25)		(8.21)	(16.98)	(2.15)	(8.20)		(0.47)	(1.90)	(49.08)	(1.75)	(100.00)
	Anti. Expenditure	18.04	8.07	2.04	3.31	27.99	4.95	18.42	0.00	1.04	3.94	83.70	3.66	175.16
		(10.30)	(4.61)	(1.16)	(1.89)	(15.98)	(2.83)	(10.52)		(0.59)	(2.25)	(47.78)	(2.09)	(100.00)
22.	Tamil Nadu													
	Ninth Plan (Agreed Outlay)	2,802.23	2,301.25	0.00	1,447.65	6,019.95	1,402.91	2,705.78	0.00	70.10	70.13	7,958.07	221.93	25,000.00
		(11.21)	(9.21)		(5.79)	(24.08)	(5.61)	(10.82)		(0.28)	(0.28)	(31.83)	(0.89)	(100.00)
	Annual Plan 1997-98	342.75	437.55	0.00	335.69	871.11	177.20	458.00	0.00	7.09	41.14	1,300.34	34.03	4,004.90
	Approved outlay	(8.56)	(10.93)		(8.38)	(21.75)	(4.42)	(11.44)		(0.18)	(1.03)	(32.47)	(0.85)	(100.00)
	Actual Expenditure	303.78	449.74	0.00	147.35	795.51	190.23	564.16	0.00	8.29	7.00	1,518.36	26.21	4,010.63
		(7.57)	(11.21)		(3.67)	(19.84)	(4.74)	(14.07)		(0.21)	(0.17)	(37.86)	(0.65)	(100.00)
	Annual Plan 1998-99	392.11	470.98	0.00	340.63	903.90	104.12	694.55	0.00	6.61	43.47	1,492.36	51.27	4,500.00
	Approved outlay	(8.71)	(10.47)		(7.57)	(20.09)	(2.31)	(15.43)		(0.15)	(0.97)	(33.16)	(1.14)	(100.00)
	Actual Expenditure	390.56	534.61	0.00	278.28	818.32	135.48	459.39	0.00	3.94	9.70	1,850.09	35.46	4,515.83
		(8.65)	(11.84)		(6.16)	(18.12)	(3.00)	(10.17)		(0.09)	(0.21)	(40.97)	(0.79)	(100.00)
	Annual Plan 1999-2000	343.38	458.40	0.00	418.29	1,035.14	107.38	672.40	0.00	6.54	42.54	2,113.50	52.43	5,250.00
	Approved outlay	(6.54)	(8.73)		(7.97)	(19.72)	(2.05)	(12.81)		(0.12)	(0.81)	(40.26)	(1.00)	(100.00)
	Anti. Expenditure	439.60	559.26	0.00	427.02	1,035.71	103.73	486.44	0.00	4.42	11.02	2,112.60	71.93	5,251.73
		(8.37)	(10.65)		(8.13)	(19.72)	(1.98)	(9.26)		(0.08)	(0.21)	(40.23)	(1.37)	(100.00)

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis) (Rs. Crore)

SL	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
23.	**Tripura**													
	Ninth Plan (Agreed Outlay)	195.68	357.46	140.19	194.01	174.54	79.34	367.37	0.95	3.22	12.17	1,028.39	24.07	2,577.39
		(7.59)	(13.87)	(5.44)	(7.53)	(6.77)	(3.08)	(14.25)		(0.12)	(0.47)	(39.90)	(0.93)	(100.00)
	Annual Plan 1997-98	33.29	72.79	23.34	34.96	29.16	13.12	59.84	0.59	0.55	1.93	166.37	3.97	439.91
	Approved outlay	(7.57)	(16.55)	(5.31)	(7.95)	(6.63)	(2.98)	(13.60)	(0.13)	(0.13)	(0.44)	(37.82)	(0.90)	(100.00)
	Actual Expenditure	33.37	73.67	23.34	16.83	26.49	13.11	46.01	0.10	0.60	1.87	173.15	4.05	412.59
		(8.09)	(17.86)	(5.66)	(4.08)	(6.42)	(3.18)	(11.15)	(0.02)	(0.15)	(0.45)	(41.97)	(0.98)	(100.00)
	Annual Plan 1998-99	33.42	32.64	23.34	53.27	33.91	11.12	64.31	0.20	0.37	1.46	183.19	2.77	440.00
	Approved outlay	(7.60)	(7.42)	(5.30)	(12.11)	(7.71)	(2.53)	(14.62)	(0.05)	(0.08)	(0.33)	(41.63)	(0.63)	(100.00)
	Actual Expenditure	30.39	52.57	23.34	20.29	24.97	11.93	33.61	0.01	0.38	1.42	190.67	2.67	392.25
		(7.75)	(13.40)	(5.95)	(5.17)	(6.37)	(3.04)	(8.57)		(0.10)	(0.36)	(48.61)	(0.68)	(100.00)
	Annual Plan 1999-2000	32.82	26.62	15.00	78.92	30.27	7.12	50.69	0.20	0.43	1.63	228.99	2.31	475.00
	Approved outlay	(6.91)	(5.60)	(3.16)	(16.61)	(6.37)	(1.50)	(10.67)	(0.04)	(0.09)	(0.34)	(48.21)	(0.49)	(100.00)
	Anti. Expenditure	35.99	46.01	23.34	52.08	30.31	16.06	45.06	0.20	0.50	1.66	224.97	2.44	478.62
		(7.52)	(9.61)		(10.88)	(6.33)	(3.36)	(9.41)		(0.10)	(0.35)	(47.00)	(0.51)	(100.00)
24.	**Uttar Pradesh**													
	Ninth Plan (Agreed Outlay)	3,070.38	4,742.80	575.00	3,290.12	7,544.15	526.65	10,006.72	0.00	2,074.60	2,103.58	12,277.97	128.03	46,340.00
		(6.63)	(10.23)	(1.24)	(7.10)	(16.28)	(1.14)	(21.59)		(4.48)	(4.54)	(26.50)	(0.28)	(100.00)
	Annual Plan 1997-98	510.45	857.06	115.00	626.01	1,819.12	101.12	915.69	0.00	65.86	521.62	1,595.85	118.75	7,246.53
	Approved outlay	(7.04)	(11.83)	(1.59)	(8.64)	(25.10)	(1.40)	(12.64)		(0.91)	(7.20)	(22.02)	(1.64)	(100.00)
	Actual Expenditure	406.82	682.53	115.00	618.19	1,131.46	93.25	809.33	0.00	32.98	80.95	1,665.54	16.30	5,652.35
		(7.20)	(12.08)	(2.03)	(10.94)	(20.02)	(1.65)	(14.32)		(0.58)	(1.43)	(29.47)	(0.29)	(100.00)
	Annual Plan 1998-99	716.19	1,066.87	420.00	835.02	2,289.72	151.86	1,326.35	0.00	327.22	900.44	2,191.22	35.11	10,260.00
	Approved outlay	(6.98)	(10.40)	(4.09)	(8.14)	(22.32)	(1.48)	(12.93)		(3.19)	(8.78)	(21.36)	(0.34)	(100.00)
	Anti. Expenditure	475.86	831.39	269.12	608.59	1,182.96	136.47	1,218.94	0.00	34.53	71.32	1,588.05	19.34	6,436.57
		(7.39)	(12.92)	(4.18)	(9.46)	(18.38)	(2.12)	(18.94)		(0.54)	(1.11)	(24.67)	(0.30)	(100.00)
	Annual Plan 1999-2000	839.45	1,035.84	460.00	1,005.32	2,108.02	74.76	1,522.30	0.00	251.47	1,664.19	2,415.00	23.65	11,400.00
	Approved outlay	(7.36)	(9.09)	(4.04)	(8.82)	(18.49)	(0.66)	(13.35)		(2.21)	(14.60)	(21.18)	(0.21)	(100.00)
	Revised Outlay	363.73	532.11	427.47	589.13	896.30	53.28	961.92	0.00	20.29	24.56	1,229.21	6.08	5,104.08
		(7.13)	(10.43)	(3.75)	(11.54)	(17.56)	(1.04)	(18.85)		(0.40)	(0.48)	(24.08)	(0.12)	(100.00)

AANNEXURE- 2 *(Contd.)*

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis) (Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
25.	**West Bengal**													
	Ninth Plan (Agreed Outlay)	712.13	1,107.76	216.82	1,403.57	5,636.88	1,326.30	1,064.32	0.00	58.96	205.69	4,798.27	369.30	16,900.00
		(4.21)	(6.55)	(1.28)	(8.31)	(33.35)	(7.85)	(6.30)		(0.35)	(1.22)	(28.39)	(2.19)	(100.00)
	Annual Plan 1997-98	150.58	254.95	65.85	304.88	1,255.17	278.86	338.09	0.00	13.60	36.41	1,136.23	73.00	3,907.62
	Approved outlay	(3.85)	(6.52)	(1.69)	(7.80)	(32.12)	(7.14)	(8.65)		(0.35)	(0.93)	(29.08)	(1.87)	(100.00)
	Actual Expenditure	77.96	153.50	75.74	197.35	1,027.67	210.63	226.93	0.00	6.66	172.07	647.37	44.22	2,840.10
		(2.74)	(5.40)	(2.67)	(6.95)	(36.18)	(7.42)	(7.99)		(0.23)	(6.06)	(22.79)	(1.56)	(100.00)
	Annual Plan 1998-99	180.98	279.03	111.34	358.55	1,577.65	338.68	383.83	0.00	21.40	74.39	1,184.55	84.45	4,594.85
	Approved outlay	(3.94)	(6.07)	(2.42)	(7.80)	(34.34)	(7.37)	(8.35)		(0.47)	(1.62)	(25.78)	(1.84)	(100.00)
	Actual Expenditure	82.08	104.18	90.99	267.25	1,312.45	175.05	308.58	0.00	10.10	216.97	761.39	130.60	3,459.64
		(2.37)	(3.01)	(2.63)	(7.72)	(37.94)	(5.06)	(8.92)		(0.29)	(6.27)	(22.01)	(3.77)	(100.00)
	Annual Plan 1999-2000	239.93	387.26	121.15	395.20	2,012.30	377.08	674.97	0.00	14.20	100.67	1,355.00	109.24	5,787.00
	Approved outlay	(4.15)	(6.69)	(2.09)	(6.83)	(34.77)	(6.52)	(11.66)		(0.25)	(1.74)	(23.41)	(1.89)	(100.00)
	Anti. Expenditure	204.43	366.31	153.80	334.20	1,287.02	397.93	585.35	0.00	12.67	115.86	1,055.12	135.94	4,648.63
		(4.40)	(7.88)	(1.35)	(7.19)	(27.69)	(8.56)	(12.59)		(0.27)	(2.49)	(22.70)	(2.92)	(100.00)
	Union Territories													
26.	**A & N Islands**													
	Ninth Plan (Agreed Outlay)	137.89	59.00	0.00	10.00	150.00	38.00	550.36	5.00	5.00	40.00	481.27	58.48	1,535.00
		(8.98)	(3.84)		(0.65)	(9.77)	(2.48)	(35.85)	(0.33)	(0.33)	(2.61)	(31.35)	(3.81)	(100.00)
	Annual Plan 1997-98	18.12	10.13	0.00	3.50	17.10	9.61	101.39	0.80	0.60	9.03	86.20	5.36	261.84
	Approved outlay	(6.92)	(3.87)		(1.34)	(6.53)	(3.67)	(38.72)	(0.31)	(0.23)	(3.45)	(32.92)	(2.05)	(100.00)
	Actual Expenditure	16.11	9.83	0.00	2.41	25.01	10.18	89.84	0.71	0.23	8.31	84.75	6.05	253.43
		(6.36)	(3.88)		(0.95)	(9.87)	(4.02)	(35.45)	(0.28)	(0.09)	(3.28)	(33.44)	(2.39)	(100.00)
	Annual Plan 1998-99	20.23	11.65	0.00	2.75	26.82	15.54	118.75	0.64	0.66	10.01	104.24	8.71	320.00
	Approved outlay	(6.32)	(3.64)		(0.86)	(8.38)	(4.86)	(37.11)	(0.20)	(0.21)	(3.13)	(32.58)	(2.72)	(100.00)
	Actual Expenditure	18.52	11.68	0.00	2.40	26.41	14.27	120.39	0.74	0.25	10.63	102.90	9.21	317.40
		(5.83)	(3.68)		(0.76)	(8.32)	(4.50)	(37.93)	(0.23)	(0.08)	(3.35)	(32.42)	(2.90)	(100.00)
	Annual Plan 1999-2000	21.40	12.00	0.00	2.50	30.00	14.00	196.33	0.75	0.60	9.75	103.25	9.42	400.00
	Approved outlay	(5.35)	(3.00)		(0.63)	(7.50)	(3.50)	(49.08)	(0.19)	(0.15)	(2.44)	(25.81)	(2.36)	(100.00)
	Revised Outlay *	21.40	12.00	0.00	2.50	30.00	14.00	196.33	0.75	0.60	9.75	103.25	9.42	400.00
		(5.35)	(3.00)		(0.63)	(7.50)	(3.50)	(49.08)		(0.15)	(2.44)	(25.81)	(2.36)	(100.00)

* : Revision not sought; Approved Outlay repeated.

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis)

(Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
27.	**Chandigarh**													
	Ninth Plan (Agreed Outlay)	7.22	11.88	0.00	1.20	86.46	3.09	19.39	0.00	1.05	9.60	539.59	5.52	685.00
		(1.05)	(1.73)		(0.18)	(12.62)	(0.45)	(2.83)		(0.15)	(1.40)	(78.77)	(0.81)	(100.00)
	Annual Plan 1997-98	1.27	0.89	0.00	0.25	14.75	0.56	3.65	0.00	0.25	1.29	92.50	1.46	116.87
	Approved outlay	(1.09)	(0.76)		(0.21)	(12.62)	(0.48)	(3.12)		(0.21)	(1.10)	(79.15)	(1.25)	(100.00)
	Actual Expenditure	2.08	1.28	0.00	0.22	10.41	0.71	2.95	0.00	0.19	1.72	100.38	1.40	121.34
		(1.71)	(1.05)		(0.18)	(8.58)	(0.59)	(2.43)		(0.16)	(1.42)	(82.73)	(1.15)	(100.00)
	Annual Plan 1998-99	2.45	2.20	0.00	0.22	12.10	0.35	3.60	0.00	2.20	1.25	112.05	1.34	137.76
	Approved outlay	(1.78)	(1.60)		(0.16)	(8.78)	(0.25)	(2.61)		(1.60)	(0.91)	(81.34)	(0.97)	(100.00)
	Actual Expenditure	3.17	2.89	0.00	0.45	11.08	0.38	3.98	0.00	2.21	1.26	108.30	1.27	134.99
		(2.35)	(2.14)		(0.33)	(8.21)	(0.28)	(2.95)		(1.64)	(0.93)	(80.23)	(0.94)	(100.00)
	Annual Plan 1999-2000	3.66	2.70	0.00	0.25	13.35	0.38	3.89	0.00	2.46	1.64	121.38	1.68	151.39
	Approved outlay	(2.42)	(1.78)		(0.17)	(8.82)	(0.25)	(2.57)		(1.62)	(1.08)	(80.18)	(1.11)	(100.00)
	Anti. Expenditure	3.66	2.70	0.00	0.25	13.35	0.38	3.89	0.00	2.46	1.64	121.38	1.68	151.39
		(2.42)	(1.78)		(0.17)	(8.82)	(0.25)	(2.57)		(1.62)	(1.08)	(80.18)	(1.11)	(100.00)
28.	**Dadra & Nagar Haveli**													
	Ninth Plan (Agreed Outlay)	29.23	2.81	0.00	12.24	48.68	5.73	37.07	0.00	0.30	4.79	57.21	6.94	205.00
		(14.26)	(1.37)		(5.97)	(23.75)	(2.80)	(18.08)		(0.15)	(2.34)	(27.91)	(3.39)	(100.00)
	Annual Plan 1997-98	5.35	0.76	0.00	2.45	5.56	0.38	4.55	0.00	0.06	1.08	14.06	0.46	34.71
	Approved outlay	(15.41)	(2.19)		(7.06)	(16.02)	(1.09)	(13.11)		(0.17)	(3.11)	(40.51)	(1.33)	(100.00)
	Actual Expenditure	3.79	1.03	0.00	2.12	7.23	0.37	4.62	0.00	0.05	0.91	12.97	0.58	33.67
		(11.26)	(3.06)		(6.30)	(21.47)	(1.10)	(13.72)		(0.15)	(2.70)	(38.52)	(1.72)	(100.00)
	Annual Plan 1998-99	5.28	0.83	0.00	2.05	7.71	0.43	4.85	0.00	0.07	1.23	17.30	1.83	41.58
	Approved outlay	(12.70)	(2.00)		(4.93)	(18.54)	(1.03)	(11.66)		(0.17)	(2.96)	(41.61)	(4.40)	(100.00)
	Actual Expenditure	3.67	0.86	0.00	2.51	9.21	0.32	5.56	0.00	0.07	1.22	16.73	1.23	41.38
		(8.87)	(2.08)		(6.07)	(22.26)	(0.77)	(13.44)		(0.17)	(2.95)	(40.43)	(2.97)	(100.00)
	Annual Plan 1999-2000	5.08	0.86	0.00	2.50	10.06	0.41	5.09	0.00	0.07	1.38	18.79	1.38	45.62
	Approved outlay	(11.14)	(1.89)		(5.48)	(22.05)	(0.90)	(11.16)		(0.15)	(3.02)	(41.19)	(3.02)	(100.00)
	Anti. Expenditure	5.08	0.86	0.00	2.50	10.06	0.41	5.09	0.00	0.07	1.38	18.79	1.38	45.62
		(11.14)	(1.89)		(5.48)	(22.05)	(0.90)	(11.16)		(0.15)	(3.02)	(41.19)	(3.02)	(100.00)

ANNEXURE- 2 *(Contd.)*

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis) (Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
29.	**Daman & Diu**													
	Ninth Plan (Agreed Outlay)	9.66	1.21	0.00	5.11	30.06	3.60	27.24	0.00	0.47	17.25	58.38	12.02	165.00
		(5.85)	(0.73)		(3.10)	(18.22)	(2.18)	(16.51)		(0.28)	(10.45)	(35.38)	(7.28)	(100.00)
	Annual Plan 1997-98	2.07	0.28	0.00	0.66	4.43	0.51	3.57	0.00	0.14	2.31	11.68	2.06	27.71
	Approved outlay	(7.47)	(1.01)		(2.38)	(15.99)	(1.84)	(12.88)		(0.51)	(8.34)	(42.15)	(7.43)	(100.00)
	Actual Expenditure	1.07	0.27	0.00	0.73	4.77	0.51	3.94	0.00	0.08	2.61	11.22	1.80	27.00
		(3.96)	(1.00)		(2.70)	(17.67)	(1.89)	(14.59)		(0.30)	(9.67)	(41.56)	(6.67)	(100.00)
	Annual Plan 1998-99	1.88	0.34	0.00	0.71	7.97	0.67	4.16	0.00	0.15	2.00	13.89	1.62	33.39
	Approved outlay	(5.63)	(1.02)		(2.13)	(23.87)	(2.01)	(12.46)		(0.45)	(5.99)	(41.60)	(4.85)	(100.00)
	Anti. Expenditure	0.96	0.18	0.00	0.72	8.29	0.24	5.28	0.00	0.08	2.38	11.68	2.05	31.86
		(3.01)	(0.56)		(2.26)	(26.02)	(0.75)	(16.57)		(0.25)	(7.47)	(36.66)	(6.43)	(100.00)
	Annual Plan 1999-2000	1.13	0.27	0.00	0.37	13.12	0.26	9.01	0.00	0.19	1.03	10.38	0.86	36.62
	Approved outlay	(3.09)	(0.74)		(1.01)	(35.83)	(0.71)	(24.60)		(0.52)	(2.81)	(28.35)	(2.35)	(100.00)
	Revised Outlay *	1.13	0.27	0.00	0.37	13.12	0.26	9.01	0.00	0.19	1.03	10.38	0.86	36.62
		(3.09)	(0.74)		(1.01)	(35.83)	(0.71)	(24.60)		(0.52)	(2.81)	(28.35)	(2.35)	(100.00)
	* : Revision not sought; Approved Outlay repeated.													
30.	**NCT OF Delhi**													
	Ninth Plan (Agreed Outlay)	202.97	359.00	0.00	133.03	2,996.55	110.00	3,275.05	0.00	112.00	78.38	7,645.00	629.30	15,541.28
		(1.31)	(2.31)		(0.86)	(19.28)	(0.71)	(21.07)		(0.72)	(0.50)	(49.19)	(4.05)	(100.00)
	Annual Plan 1997-98	14.33	60.01	0.00	12.00	299.75	8.00	468.25	0.00	1.60	7.28	1,084.59	117.19	2,073.00
	Approved outlay	(0.69)	(2.89)		(0.58)	(14.46)	(0.39)	(22.59)		(0.08)	(0.35)	(52.32)	(5.65)	(100.00)
	Actual Expenditure	12.25	79.71	0.00	10.86	299.71	7.77	445.76	0.00	1.38	6.41	1,013.70	100.75	1,978.30
		(0.62)	(4.03)		(0.55)	(15.15)	(0.39)	(22.53)		(0.07)	(0.32)	(51.24)	(5.09)	(100.00)
	Annual Plan 1998-99	19.51	113.79	0.00	26.60	445.50	21.10	538.56	0.00	13.60	13.22	1,419.39	88.73	2,700.00
	Approved outlay	(0.72)	(4.21)		(0.99)	(16.50)	(0.78)	(19.95)		(0.50)	(0.49)	(52.57)	(3.29)	(100.00)
	Anti. Expenditure	14.06	110.57	0.00	16.98	440.90	10.83	356.12	0.00	9.37	10.89	1,322.28	73.86	2,365.86
		(0.59)	(4.67)		(0.72)	(18.64)	(0.46)	(15.05)		(0.40)	(0.46)	(55.89)	(3.12)	(100.00)
	Annual Plan 1999-2000	21.69	117.95	0.00	21.25	477.00	25.00	601.75	0.00	15.50	13.83	1,595.27	110.76	3,000.00
	Approved outlay	(0.72)	(3.93)		(0.71)	(15.90)	(0.83)	(20.06)		(0.52)	(0.46)	(53.18)	(3.69)	(100.00)
	Revised Outlay	13.79	62.47	0.00	20.83	489.40	25.00	465.24	0.00	5.18	15.88	1,293.77	108.44	2,500.00
		(0.55)	(2.50)		(0.83)	(19.58)	(1.00)	(18.61)		(0.21)	(0.64)	(51.75)	(4.34)	(100.00)

MAJOR HEADWISE, STATEWISE OUTLAY EXPENDITURE DURING NINTH PLAN (1997-2002)

(Percentages in parenthesis) (Rs. Crore)

Sl.	States/UTs	Agri. & Allied Activities	Rural Develop-ment	Special Area Pro-grame	Irriga-tion & Flood Control	Energy	Industry & Mineral	Trans-port	Comm-unica-tion	Science & Tech-nology	General Economic Services	Social Services	General Services	Grand Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
31.	**Lakshadweep**													
	Ninth Plan (Agreed Outlay)	43.99	5.48	0.00	17.36	37.01	9.16	85.49	0.93	6.44	5.26	55.25	3.63	270.00
		(16.29)	(2.03)		(6.43)	(13.71)	(3.39)	(31.66)	(0.34)	(2.39)	(1.95)	(20.46)	(1.34)	(100.00)
	Annual Plan 1997-98	7.58	0.80	0.00	2.12	4.10	1.83	15.57	0.16	0.83	0.88	11.14	0.77	45.78
	Approved outlay	(16.56)	(1.75)		(4.63)	(8.96)	(4.00)	(34.01)	(0.35)	(1.81)	(1.92)	(24.33)	(1.68)	(100.00)
	Actual Expenditure	8.34	0.94	0.00	3.69	3.71	1.74	13.19	0.12	0.73	1.37	9.78	0.86	44.47
		(18.75)	(2.11)		(8.30)	(8.34)	(3.91)	(29.66)	(0.27)	(1.64)	(3.08)	(21.99)	(1.93)	(100.00)
	Annual Plan 1998-99	7.51	1.48	0.00	2.63	4.91	1.79	19.71	0.18	0.82	2.03	12.53	0.96	54.55
	Approved outlay	(13.77)	(2.71)		(4.82)	(9.00)	(3.28)	(36.13)	(0.33)	(1.50)	(3.72)	(22.97)	(1.76)	(100.00)
	Actual Expenditure	6.15	1.37	0.00	2.55	4.91	1.74	18.81	0.10	0.80	2.49	12.44	1.43	52.79
		(11.65)	(2.60)		(4.83)	(9.30)	(3.30)	(35.63)	(0.19)	(1.52)	(4.72)	(23.57)	(2.71)	(100.00)
	Annual Plan 1999-2000	7.30	1.66	0.00	3.05	5.06	1.64	20.89	0.13	1.07	1.77	13.39	2.01	57.97
	Approved outlay	(12.59)	(2.86)		(5.26)	(8.73)	(2.83)	(36.04)	(0.22)	(1.85)	(3.05)	(23.10)	(3.47)	(100.00)
	Revised Outlay *	7.30	1.66	0.00	3.05	5.06	1.64	20.89	0.13	1.07	1.77	13.39	2.01	57.97
		(12.59)	(2.86)		(5.26)	(8.73)	(2.83)	(36.04)	(0.22)	(1.85)	(3.05)	(23.10)	(3.47)	(100.00)
	* : Revision not sought; Approved Outlay repeated.													
32.	**Pondicherry**													
	Ninth Plan (Agreed Outlay)	143.19	38.20	0.00	39.00	232.00	185.00	72.60	0.00	1.60	31.30	521.50	35.61	1,300.00
		(11.01)	(2.94)		(3.00)	(17.85)	(14.23)	(5.58)		(0.12)	(2.41)	(40.12)	(2.74)	(100.00)
	Annual Plan 1997-98	22.53	6.40	0.00	5.81	46.50	31.46	11.54	0.00	0.25	5.46	82.84	7.06	219.85
	Approved outlay	(10.25)	(2.91)		(2.64)	(21.15)	(14.31)	(5.25)		(0.11)	(2.48)	(37.68)	(3.21)	(100.00)
	Actual Expenditure	23.11	5.97	0.00	7.46	46.32	29.03	11.12	0.00	0.24	4.77	81.35	4.34	213.71
		(10.81)	(2.79)		(3.49)	(21.67)	(13.58)	(5.20)		(0.11)	(2.23)	(38.07)	(2.03)	(100.00)
	Annual Plan 1998-99	29.30	6.78	0.00	5.81	27.05	33.68	11.45	0.00	0.75	5.33	112.26	8.59	241.00
	Approved outlay	(12.16)	(2.81)		(2.41)	(11.22)	(13.98)	(4.75)		(0.31)	(2.21)	(46.58)	(3.56)	(100.00)
	Actual Expenditure	25.83	6.58	0.00	7.64	48.03	32.85	15.38	0.00	0.56	5.07	109.87	7.48	259.29
		(9.96)	(2.54)		(2.95)	(18.52)	(12.67)	(5.93)		(0.22)	(1.96)	(42.37)	(2.88)	(100.00)
	Annual Plan 1999-2000	33.98	8.37	0.00	13.81	22.05	36.33	22.50	0.00	0.75	14.79	144.35	15.07	312.00
	Approved outlay	(10.89)	(2.68)		(4.43)	(7.07)	(11.64)	(7.21)		(0.24)	(4.74)	(46.27)	(4.83)	(100.00)
	Revised Outlay *	34.57	8.64	0.00	12.92	21.65	36.53	17.95	0.00	0.75	10.35	144.80	12.64	300.80
		(11.49)	(2.87)		(4.30)	(7.20)	(12.14)	(5.97)		(0.25)	(3.44)	(48.14)	(4.20)	(100.00)

Annexure 3

STATEWISE PER CAPITA PLAN EXPENDITURE (PROVISIONAL/ ANTICIPATED) FROM 1995-96 ONWARDS

(In Rs.)

Sl.No.	States	1995-96	1996-97	1997-98	1998-99*
1.	2.	3.	4.	5.	6.
STATES					
1.	Andhra Pradesh	376	419	501	661
2.	Arunachal Pradesh	4505	4375	4845	4467
3.	Assam	489	484	501	500
4.	Bihar	103	170	173	233
5.	Goa	1549	1533	1495	1631
6.	Gujarat	582	679	846	1083
7.	Haryana	620	680	694	796
8.	Himachal Pradesh	1516	1606	2219	2427
9.	Jammu & Kashmir	1204	1451	1690	1395
10.	Karnataka	706	815	896	1025
11.	Kerala	515	673	906	969
12.	Madhya Pradesh	355	375	447	442
13.	Maharashtra	722	783	890	1258
14.	Manipur	1410	1710	1622	1862
15.	Meghalaya	1233	1266	1211	1438
16.	Mizoram	2958	3523	3515	3179
17.	Nagaland	1443	1856	1747 $	1967 $
18.	Orissa	400	575	574	697
19.	Punjab	736	819	904	890
20.	Rajasthan	656	637	796	766
21.	Sikkim	3542	4000	4458	4241
22.	Tamil Nadu	563	633	675	763
23.	Tripura	1009	1168	1293	1200
24.	Uttar Pradesh	281	372	364	408
25.	West Bengal	292	309	376	521

$: Actual Expenditure/ Anti. Expenditure figures are not available, Revised Outlay figures have been taken as Anti. Expenditure.

* : Anticipated Expenditure.

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Annexure 4

Statewise Profile of Expenditure in the First Two Years of Ninth Plan

Andhra Pradesh : Expenditure in 1997-98 was concentrated in four sectors, Social Services (27.8%), Irrigation and Flood Control (22.1%), Power (16.2%) and Transport (11.1%). These sectors accounted for 77.2% of total Plan expenditure. However, compared to the approved outlay of Rs.918 crore for the Power sector, expenditure incurred was at a much lower level of Rs.585 crore. Expenditure was less than outlay also in respect of Irrigation and Flood Control. At the same time the expenditure was substantially higher than outlay for Industry & Minerals, Agriculture & Allied Activities and Transport sectors. Expenditure incurred in Social Services sector was also significantly higher than the outlay. The State has also spent a sum of Rs.125.5 crore for Special Area Programme in 1997-98. Overall expenditure exceeded the approved outlay by about Rs.25 crore. Expenditure in 1998-99 was, however, more than outlay in all Sectors except Power, with the result that the overall expenditure in the first two yearas was marginally higher than outlay. Utilisation of Plan funds by the State during the first two years of Ninth Plan has thus been found to be quite satisfactory and as per Plan priorities, though the State has to make up for the shortfall in investments in the Energy sector.

Bihar : The overall expenditure in the first two years of Ninth Plan was substantially less (- 33%) than the approved outlay. As a result, expenditure in all major sectors was less than the outlay. The shortfall was over 50% in the Agriculture & Allied Activities sector, 21% in Rural Development, 32% in Irrigation and Flood Control, 79% in Energy, 32% in Transport and 34% in Social Services sector. It is also observed that 70% to 75 % of total expenditure was accounted for by three sectors viz. Rural Development, Irrigation & Flood Control and Social Services. Expenditure on Agriculture was only 2-3% of total expenditure. The utilisation of Plan funds by the State in the first two years of Ninth Plan has been far from satisfactory and the sector which has suffered the most has been Energy (Power) sector.

Goa : The overall expenditure of the State in the first two years has been about 20% less than the original approved outlay. The shortfall in expenditure was the largest in the Irrigation and Flood Control sector (29% in 1997-98 and 66% in 1998-99). There was substantial shortfall in the Transport and Social Services sectors also. Of the total expenditure, around 45% was in the Social Services sector which includes Education, Health, Housing and Water Supply & Sanitation. Next in importance is Irrigation followed by Transport Sector. The State has to improve the utilisation of Plan funds and achieve the investment targets in sectors which are considered important from the point of view of the State's economy and human development.

Gujarat : Overall expenditure in the first two years is estimated to be less by around 10 per cent. In the first year there was a shortfall of about 32% in the Social Services sector as compared to the approved outlay for that sector. There was also a significant shortfall in the expenditure in Industry and Mineral sector. In the second year also the expenditure in the Social Services sector was substantially less (over 30%) than the outlay; other sectors showing lower expenditure include Rural Development and Transport sectors. The State has spent more funds than provided in the outlay for the Irrigation sector as well as the Energy sector. The State has to take steps to fully utilise Plan funds in general, and in the Social Services sector in particular.

Haryana : In the case of Haryana also there is a shortfall of 19% in expenditure compared to approved outlay. The shortfall in expenditure has been more pronounced in Transport (-61%), Irrigation and Flood Control (-40%). Other sectors in which expenditure was less than outlay include Rural Development. Social Services, Irrigation and Flood Control, Energy and Agriculture & Allied Activities account for the bulk of Plan expenditure of the State Government. The State ought to have a better assessment of fund requirements in important sectors like Irrigation, Transport and Social Infrastructure in order to prevent non-utilisation of approved Plan funds.

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Himachal Pradesh : Actual figures were available only for the first year, 1997-98. The overall expenditure in that year has been significantly higher than the approved outlay. Around 12 %t of the total Plan expenditure has been in Agriculture & Allied Activities. Energy (18.3%), Social Services (39.3%) and Transport (9.9%) are the sectors along with agriculture which accounted for the bulk of the State's Plan expenditure in the first year. The State has done very well in utilising the Plan funds in the first year and expenditure in all the major sectors has been uniformly higher than the approved outlay.

Jammu & Kashmir : Total expenditure in the first two years has fallen short of approved outlay by about 20%. In the first year the expenditure in Agriculture and Rural Development sectors was more or less same as outlay while the expenditure in Energy and Irrigation sectors was much lower than the outlay. In Transport and Social

Services sectors expenditure has been higher. There was a sharp increase under the head 'General Services' in the first year (1997-98). In the second year (1998-99) expenditure has been less than half of the outlay in Rural Development and Irrigation & Flood Control sectors. Shortfall was also noticed in the Energy sector (33%), Industry and Mineral sector (40%) and Social Services sector (18%). The State also spends a considerable amount under Special Area Programme and expenditure under this head has been more than the outlay in the first two years. The State has to take steps to improve utilisation of Plan funds in the important sectors like Irrigation, Energy and Social Services.

Karnataka : The overall expenditure for the first two years (for 1998-99 provisional) has been more than the total approved outlay. Irrigation and Flood Control, Social Services, Energy and Transport accounted for 82% of total expenditure in the first year. More or less the same pattern prevailed in the second year also except that the share of energy sector increased from 13% to 16%. The Agriculture and Allied Activities sector expenditure was higher than the outlay in both years. Unlike other States expenditure incurred by Karnataka in the Industry and Mineral sector has been significantly higher than the approved Annual Plan outlay for both the years, though the outlay itself has to be stepped up if the agreed Ninth Plan outlay is to be achieved by the end of the Ninth Plan. Expenditure on Rural Development has fallen short of outlay. The combined expenditure for both the years in respect of Irrigation and Flood Control has been more than the approved outlay. The same is the case with Transport Sector also. Expenditure in the Social Services sector has been higher than the outlay. The State has done well in overall utilisation of Plan funds; the areas requiring more attention are Rural Development and Special Area Programme, expenditure in respect of the latter having been substantially less than the outlay.

Kerala : The overall Plan expenditure of the State has exceeded the approved outlay in the first two years. A substantial part of State's Plan expenditure 1997-98 and 1998-99 had been allocated to the local bodies under the decentralised system of planning introduced by the State. Sectorwise actual expenditure figures are available for the State sector outlay (i.e. total outlay minus outlay for local bodies). Such expenditure in the Power and Transport sectors has been significantly higher while there has been some shortfall in Rural Development, Irrigation and Industry sectors. Expenditure in the Agriculture sector was more or less same as outlay. In the Social Services sector Plan expenditure was good in the first year but in the second year there was a significant shortfall. This sector which includes various services dealing with human development (Education, Health, Water Supply and Sanitation, Nutrition, Housing, Urban Development, Etc.) accounted for 18% of total Plan expenditure in the first year and 13.4% in the second year. (However, taking into account the allocations made to the local bodies for schemes in this sector, the share of the sector in total plan expenditure would be 26.4% in 1998-99.) The Power sector expenditure was 18.6% in the first year and 26% in the second year.

In 1998-99, out of a total Plan outlay of Rs.3,100 crore, an amount of Rs.950 crore was allocated to local bodies . The sectoral distribution has been: social services sector - Rs.325 crore., Agriculture & Allied Activities - Rs.198 crore., Transport sector (mainly roads & bridges) - Rs.190 crore., Irrigation & Flood Control - Rs.100 crre., Village & Small Industries - Rs.68.7 crore. Energy sector - Rs.25.9 crore. and the balance for other sectors. Since the total plan outlay of local bodies has been much higher than the Plan grant , the amount of Rs.950 crore. is assumed to have been fully spent and included in the total Plan expenditure of the State.

On the whole, the State has done well in utilisation of Plan funds. However, the shortfall in respect of Rural Development, Irrigation and Social Services has to be made good in the subsequent years.

Madhya Pradesh : The overall expenditure in the first two years was less than approved outlay by 9.5%. The largest shortfall was in the Industry and Mineral sector (70%) followed by Transport sector (45%). There has also been some shortfall in expenditure for Rural Development sector. However, the expenditure in irrigation sector has been as per the outlay while in the Energy and Agriculture sectors it was substantially higher than the outlay. Much of the shortfall in overall expenditure was due to low spending in the Social Services sector to the extent of Rs.460 crore. While the State has taken care to fully utilise Plan funds for Agriculture, Irrigation and Power sectors, Industry and Transport sectors were virtually neglected. Social Services like Sports and Youth Services, Medical and Public Health, Water Supply and Sanitation, Housing and Urban Development were also affected.

Maharashtra : The total expenditure for the first two years of Ninth Plan was a little less than the approved outlay. Expenditure for Agriculture and Allied Activities was somewhat less than the outlay while for Rural Development it was significantly higher. Plan expenditure for Energy sector exceeded the approved outlay but there was shortfall of over Rs.900 crore (about 16%) in the Irrigation sector. The expenditure in the Transport sector has been higher than outlay. In the Social Services sector the expenditure has been significantly less than the outlay.

The State has done well in the Rural Development sector, the expenditure having exceeded the outlay by over Rs.270 crore. The overall performance of the State in the utilisation of Plan funds has been satisfactory. However, areas requiring attention are Irrigation and Social Services sector.

Orissa : The overall Plan expenditure of the State during the first two years has been less than approved outlay to the extent of 19%. The sectors in which the State has spent the allocated amount are Industry & Minerals, Social Services and Rural Development. Expenditure on the infrastructure sectors has been generally lower, especially in the Energy sector where the expenditure was just 40% of the approved outlay. The shortfall in Transport and Irrigation sectors has also been quite significant. The State should take steps to utilise the Plan funds fully and also ensure that the heavy shortfall in investments in the Power sector in particular and other infrastructure sectors in general are made up in the subsequent years of the Ninth Plan.

Punjab : Total Plan expenditure during the first two years is 27% less than the approved outlay. Expenditure in the Power sector has exceeded the approved outlay by 34% which was, however, offset by shortfall in expenditure in other sectors like Agriculture & Allied Services, Rural Development, Irrigation, Industry, Transport and Social Services. Thus the increased expenditure for Power sector was at the cost of other important sectors. The State Government should assess the sectoral investment requirements more realistically in order to avoid a steep increase in the expenditure of a particular sector at the cost of other sectors.

Rajasthan : Total Plan expenditure in the first two years exceeds the approved outlay. Expenditure in the Power sector exceeded by about Rs.788 crore. (50.5%). This was achieved by a reduction in expenditure in other sectors. Plan expenditure was lower in Agriculture & Allied Activities, Rural Development, Irrigation & Flood Control and Industry & Minerals. The reduction in expenditure in the Transport sector was also significant in the second year. In the Social Services sector, however, the shortfall was only marginal. The State Government should assess the sectoral investment requirements more realistically in order to avoid a steep increase in the expenditure of a particular sector at the cost of other important sectors.

Tamil Nadu : Total expenditure has exceeded the approved outlay in the first two years. The State has spent more than the approved outlay in respect of Rural Development and Social Services, the extent of excess expenditure being Rs.60 crore and Rs.470 crore respectively. In the Agriculture & Allied Activities sector expenditure was the same as the outlay. In the Industry & Mineral sector also expenditure was more by about Rs.34 crore. However, there has been substantial shortfall in the Power and Irrigation sectors, the shortfall being Rs.198 crore and Rs.169 crore respectively. The State has done well in overall Plan funds utilisation and also in Agriculture, Rural Development, Industry and Social Services by investing more than what was envisaged in Annual Plans. However, the shortfall in respect of Irrigation and Energy is a matter of concern and the State Government should take steps to ensure that these important sectors also receive adequate attention.

Uttar Pradesh : The overall utilisation of Plan funds was only 69% of the approved outlay in the first two years of Ninth Plan. Consequently expenditure in all major sectors has been considerably lower than approved outlay. The shortfall in expenditure was to the extent of 44% in the Power sector. The extent of shortfall in expenditure has been 21% in Rural Development, 18% in Agriculture, 16% in Irrigation, 14% in Social Services, 9% each in Industry and Transport. The low absorptive capacity of the State is a matter of great concern. All major sectors have been affected, the worst affected being the Power sector.

West Bengal : Total Plan expenditure during the first two years of the Ninth Plan was 19.6% less than the approved outlay. Expenditure in all the major sectors has been substantially lower than outlay. The extent of shortfall in expenditure was 46.4% in Agriculture, 36.5% in Irrigation, 31.8% in Social Services, 30.2% in Industry, 25.6% in Transport, 15.8% in Rural Development and 9.7% in Energy sector. The highest allocation of outlay during the first two years has been for the Energy sector and the shortfall in this sector has been the least. While taking care of the investment requirement in the Power sector the State has virtually neglected other sectors, especially Agriculture and Irrigation. The overall and sectoral Plan expenditure has been far from satisfactory. Lower spending in all the Sectors is a matter of concern and reasons for this need to be looked into.

Annexure -5

HUMAN DEVELOPMENT IN STATES : SELECTED INDICATORS

STATES	Population Below poverty line(per cent) 1993-94	Literacy Rate 1997	Rural Birth Rate (CBR) SRS :'91-92'	Rural Death rate (CDR) SRS:'91-92'	Rural Households using Facilities (%) Electricity	Piped water	PDS
Andhra Pr.	22.2	54	26	10	63	31	66
Bihar	55.0	49	31	11	10	4	5
Gujarat	24.2	68	28	10	72	60	48
Haryana	25.1	65	33	9	82	44	9
Karnataka	33.2	58	27	9	63	47	70
Kerala	25.4	93	18	6	61	17	78
Madhya Pradesh	42.5	56	36	14	51	11	34
Maharashtra	36.9	74	26	9	60	43	51
Orissa	48.6	51	29	12	19	24	5
Punjab	11.8	67	28	9	84	21	6
Rajasthan	27.4	55	35	11	49	28	24
Tamil Nadu	35.0	70	21	9	63	50	82
Uttar Pradesh	40.9	56	36	14	20	15	5
West Bengal	35.7	72	27	9	16	9	11
All India	**36.0**	**62**	**30**	**11**	**43**	**25**	**33**

Source : I) BPL and literacy rate : "The Economic Performance of the States : A Disaggregated View" – Twelfth NCAER Golden Jublee Lecture by Montek S. Ahluwalia.

II) CBR/CDR and facilities used by Rural households – "India Human Development Report (1999) – NCAER

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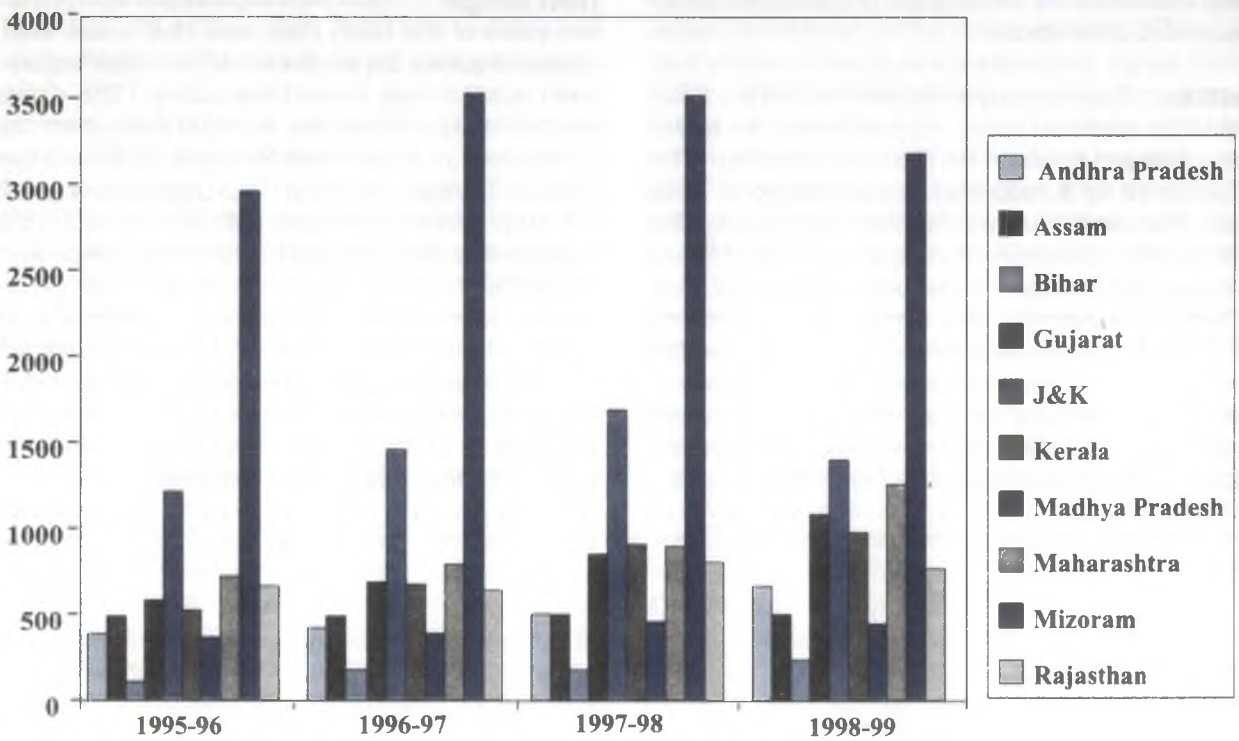
Per Capita Plan Expenditure of Selected States

(In Rupees)



CHAPTER 31

DESIGN AND IMPLEMENTATION OF PROGRAMMES

Successful implementation of development programmes requires adequate funds, appropriate policy framework and effective delivery machinery. Past experience has shown that availability of funds is no panacea for tackling problems of poverty and backwardness; it may be necessary but not a sufficient condition. What is the determining factor, it would seem, is the capability of the funding Ministries to formulate viable schemes and the delivery system to utilise the funds and achieve sustainable growth optimally. This chapter discusses these two inter-related issues: design of programmes and implementation of those programmes.

2. The Central Government Ministries spend roughly Rs.35,000 crore annually on programmes, many of which are meant for direct poverty alleviation on a targeted basis, but others affected indirectly by creating rural infrastructure including assets which would benefit the poor and also the non-poor in rural sectors and to some extent even the urban population. These programmes basically are meant not to be subsidy oriented and are for creating benefit schemes, which are sustainable over medium to long horizon. Some of the main programmes are:

Name of the programme/ Ministry	Budget allocation in 1999-00 in crore Rs
RD schemes	9,427
Food Subsidy	9,200
Subsidy on kerosene	8,040
Health & Family Welfare (only 70% of the outlay)	2,841
Social Justice & Empowerment Sector	1,207
ICDS	1,147
Mid day meal	1,031
DPEP	760
Watershed development through agriculture	229
Tribal Development	193
Swamajayanti Shahari Rozgar Yojana (Urban Poverty)	182
Total	**34,257**

3. Since the States also contribute to such Programmes, the overall amount reaching the districts through these schemes alone would be more than Rs. 40,000 crore. This is not including funds spent on many other sectors such as infrastructure and social services, which also create employment and benefit the poor. The total number of poor families in the country being approximately 5 crore, the allocation of funds per poor family would then be roughly Rs. 8,000/- per annum. Even assuming that each one of the 5 crore families were completely penniless and had no other source of income, they could buy every day 3 kg. of foodgrain with this money from the market at the rate of Rs. 7.5 per kg and thus come above the poverty level. If these funds are not being sent to the poor through a money order and are being spent on development schemes through government machinery, the underlying assumption is that benefits which will accrue to the poor through planned expenditure via bureaucracy will ultimately amount to more than Rs. 8,000/- per annum and provide greater long term satisfaction and increased incomes because of spin-off effects. However, the moot question remains, is the above assumption valid? To what extent the benefits percolating down?

Findings of CAG

4. The Comptroller & Auditor General of India (CAG) studied the implementation of a few schemes and observed as follows in a report in 1999.

" The result of the performance reviews of these schemes carried out in the controlling Union ministries and the different states disclosed a common pattern of shortcomings in the execution of all Centrally Sponsored Schemes as under:

- Inability of the Union ministries to control the execution of the schemes with a view to ensuring the attainment of the stated objectives in the most cost effective manner and within the given time frame, as a result of which, the programmes continued to be executed in uncontrolled and open-ended manner without quantitative and qualitative evaluation of delivery.
- The controlling Union Ministries confined their role to the provision of budget and release of the funds to the state governments rather mechanically without reference to the effective utilisation of the funds released earlier in accordance with the guidelines and capacity of the respective state governments to actually spend the balance from the previous years and releases during the current year.
- The ministries were unable to ensure correctness of the data and facts reported by the state governments. Overstatement of the figures of physical and financial performance by the state governments was rampant. No system of accountability for incorrect reporting and verification of reported performance were in vogue.
- The Ministry was more concerned with expenditure rather than the attainment of the objectives. Large parts of funds were released in the last month of the financial year, which could not be expected to be spent by the respective state governments during that financial year.

● The state governments' attitude to the execution of the programmes was generally indifferent. They laid emphasis on release of assistance by the ministry rather than ensuring the quality of expenditure and attainment of the objectives. Misuse of the funds provided for vulnerable sectors and sections of the society was rampant. The state governments' attitude towards such misuse was one of unconcern. The controlling Union Ministries had no clue to such misuse. Thus, in many cases, the figures of expenditure booked in accounts assumed precedence over the bona fides and propriety of the expenditure.

● Nobody could be held responsible for shortfall in performance, poor delivery of output, wanton abuse of the authority to misuse the funds provided for succour to the victims of calamity, economic upliftment of the poor Schedules Tribes, eradication of Malaria, sheltering from the suffering of repeated droughts, etc."

5. The CAG made the following observations pertaining to the scheme, Special Central Assistance (SCA) to Tribal Sub Plan: -

"Out of Rs.1,809 crore released by the Ministry during 1992-98, the 20 State Governments and Union Territory Administrations did not utilise Rs.266 crore. Out of the expenditure figures reported by the state governments, over Rs.370 crore were either retained in various deposit accounts or were misused by them for assistance to ineligible persons, purchase of vehicles and other consumer durables, discretionary expenditure, meeting administrative expenses, helicopter hire charges, construction of buildings and residential houses, reimbursement of loss sustained by the Tribal Development Corporation, etc. Thus, more than Rs.636 crore out of Rs.1809 crore provided by the Union Government — constituting over 35 per cent of the total funds — -were either not utilised at all or were utilised for purposes other than assisting the Scheduled Tribe families.

The misuse and diversion of the funds provided for economic upliftment of the poorest among the Scheduled Tribes by the officers of state governments responsible for execution of the programme call into question the propriety of approval of such expenditure and the accountability of those entrusted with custody and utilisation of public funds, particularly those meant for the vulnerable sections of the society."

6. The reasons for poor implementation of Centrally Sponsored Schemes are many, such as:

● There are too many schemes to be monitored. The Department of Agriculture has for instance about 150 Centrally Sponsored Schemes. The number could be curtailed so that systems for effective monitoring can be developed.

● There is unwillingness to accept poor performance, for fear of being questioned by Parliament or adverse press publicity. In the process, shortcomings are concealed and independent evaluation is not encouraged. Since weaknesses are not highlighted, no corrective action is taken to set them right.

● Capacity to do monitoring is limited, and often does not exist. Thus there is neither will nor capability for the task.

● Since schemes are implemented by the states, sensitivity associated with centre-state relations often precludes the Centre from asking embarrassing questions or makes it go slow with monitoring state sector schemes, although these may have important bearing on the sector with which the Central Ministry is concerned.

● Uniformity of schemes all over the country from Mizoram to Kerala — without sufficient delegation to states to change the schemes to suit local conditions — leads to a situation where the states even knowing that a scheme is not doing well become indifferent to its implementation.

7. Many schemes assume a highly committed delivery machinery which will act as 'friend, philosopher and guide' of the people. Such rare individuals, if they existed in government, do not stay at a particular post for long to make a lasting impact. These and other governance issues are discussed in the second part of the chapter.

● States do not release the counterpart funds in time, leading to uncertainty at the field level about availability of funds. This breeds corruption. States' burgeoning fiscal problems exacerbate this trend, as discussed below.

Fiscal Indiscipline in States

8. The approved Plan of some of the States is often 50% to 80% higher than the available resources, as seen below:

Name of the state	Approved Plan for 1999-00 in crore	Latest Estimate for resources for 1999-00 in crore
UP	11,400	3,948
West Bengal	5,787	3,696
Rajasthan	4,750	2,157
Bihar	3,630	3,169
MP	4,004	3,025
Assam	1,750	1,019

9. The wide gap between approved Plan and resources plays havoc with fund releases for sectoral schemes, which are often approved on the basis of the approved Plan size but for which resources are not in sight.

10. A State Secretary described his predicament in the following terms: "No firm projections are available from the State Finance Departments regarding availability of funds. As a result of this uncertainty projects, which need advance planning or are completed in several years, suffer very adversely. For instance, in forestry, advance soil work may be done but there are no funds for raising saplings. If saplings are raised, money is not available for plantation and their protection. Non-availability of funds has also affected implementation of schemes at the district level and in some districts even 30 per cent of the provisions have not been available.

11. Because of non-availability of funds, many procedural problems arise. Even though financial sanctions are issued as per budget provisions in the month of April, the Treasury does not release money when the bills are presented. Finance Departments sometimes issue formal/ informal instructions for not honouring the bills even though these may be within the budgetary provisions.

12. Bills pertaining to Centrally Sponsored Schemes and Externally Aided Projects (EAPs) are given priority, yet in practice there is lot of delay. In a particular CSS, the money approved by the Central Government in 1997-98 could not be released during that year. It was revalidated for 1998-99 but was not released yet again. Then, it was revalidated in 1999-2000 and released in 2000-01. Because of delays, Administrative Department is not in a position to submit utilization certificates and therefore further instalments are not released by the Government. A similar situation is seen to prevail in the case of Additional Central Assistance sanctioned by Planning Commission."

13. The widening outlay-resources gap weakens the link between physical targets and plan expenditure. Prioritisation of schemes becomes ad hoc. This distorts the development process and undermines the sanctity of the Plan. Apart from this, it also makes the whole process non-transparent and prone to corruption.

14. States were requested in February 2000 by the Planning Commission to make a more realistic and even conservative estimate of resources and to agree to the concept of a 'core plan'. They were also asked to seek adjustments in case resource availability improved later in the year. It is heartening to note that the states have agreed to this new initiative, and hopefully from 2000-01 onwards plans would be more realistic.

15. Many problems still remain. Several State Finance Departments have issued circulars stipulating a 10 per cent cut in the non-plan budget. However, even the balance 90 per cent of the non-plan budget is not made available. This has led to a situation where bills for petrol, TA, Electricity bills etc. are pending for months discouraging officers to undertake journeys.

16. Sustainability of projects/programmes after their completion is a serious concern. The precarious financial position in many cases prevents the State Governments from taking up even committed liabilities of the project after completion, let alone continue with the developmental activities initiated during the project period. While this question is invariably taken up at the time of approval of the project, there is no procedural enforcing mechanism in place other than reliance on the written commitment given by the State Governments. Nor is there follow-up action at the level of Planning Commission to see whether the commitment is complied with by the State Governments.

17. For instance, many assets created under rural infrastructure schemes like Jawahar Rozgar Yojana (JRY), Employment Assurance Scheme (EAS) and drinking water schemes are not being put to any useful purpose because of lack of funds for maintenance of existing assets. About 40% of school buildings in Chotanagpur area have no roof. Instead of sanctioning new buildings greater benefit would accrue at less costs if funds were available for their repairs. Permitting use of Plan funds for maintenance more liberally than allowed at present could perhaps help improve the utility of such assets.

18. Faced with the inordinate delays in releasing of money by the Finance Departments in the States, many projects are, in recent times, opting for project specific State level society for receipt of funds directly from the Central Government bypassing the State Department. While project authorities have expressed satisfaction on the flow of fund position, a different set of issues has cropped up. It has been noticed that the funds that flow directly to the state level societies are not taken into consideration while calculating the state's share of funds from the Centre thereby under-estimating the actual flow of funds to the State Governments. A viable solution with necessary safeguards is urgently called for.

Too many schemes & lack of convergence

19. A good number of Plan schemes are in operation with similar objectives and targeting the same population. Generic components like extension, training and IEC (Information, Education & Communication) get repeated in most of such schemes leading to wastage. For every new scheme, there is a tendency to develop new implementation machinery at national, state and district levels. There are schemes that are seen no longer productive, but still continue. All this calls for a lot of consolidation and convergence.

20. Though a rigorous procedure has been in place for introducing new Centrally Sponsored Scheme (CSS),

there is a proliferation of CSS which could not be kept in check. Following a direction from the National Development Council, several CSS schemes were sought to be transferred to the states. In February 1999 the Planning Commission prepared a list of such schemes with an outlay of Rs 3,709 crore annually for handing them over to the states. But Central Ministries have been reluctant to fall in line, and as of July 2000 they have agreed to give up schemes worth only Rs163 crore and transfer them to the states. In the meanwhile several new CSS have been introduced in the last two years.

21. New CSS get initiated at mid-stream through announcements in annual budgets, at the time of Independence Day and other such events. The scheme 'Mahila Samriddhi Yojana' which was initiated in the Eighth Plan with the objective of enhancing savings habits among women was wound up last year after its administrative cost rendered the scheme unviable. Schemes like 'National Reconstruction Corps' (1999) and 'Annapurna' (1999), which were brought in midway, duplicate ongoing schemes, yet they get introduced as new schemes on non-economic considerations. Other schemes approved in this manner include:

(i) Integrated Scheme for Raising the Status of the Girl Child (1997-Rs. 6,215 crore)

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(ii) Kasturba Gandhi Swatantrata Vidalaya Scheme (1998-Rs. 500 crore)

(iii) Free Education for Girls up to college level including professional colleges (1998-Rs. 663 crore)

(iv) Deen Dayal Hathkarga Protsahan Yojana (1999-Rs. 196 crore)

(v) Credit Guarantee Fund for Small Scale Industries (1999-Rs. 2,500 crore); and

(vi) National Innovation Foundation (1999-Rs. 21 crore)

22. As a part of the project schedule, there is need to provide for evaluation, both concurrent and post-project, but such a need is yet to be recognised. In this respect, Externally Aided Projects are definitely on an advantage since the donor agencies do regular evaluation of the projects. Absence of such a mechanism in the case of other national projects makes it difficult to know the progress in various components and apply mid-term corrections, if need be, in physical and financial targets.

23. In addition to these common issues, several sector-specific issues have come to the notice of Planning Commission, which are set out in the following paragraphs:

Agriculture and Cooperation Sector

24. The Department of Agriculture and Cooperation (DAC) has 182 attached/ subordinate/ autonomous offices under it. As many as 7500 people work in these offices, not counting about 30,000 working for the Indian Council of Agricultural Research. All this is notwithstanding the fact that Agriculture is a state subject. The Department runs 147 schemes with a total Ninth Plan outlay of Rs.9,228 crore.

25. DAC's major developmental programmes/ activities relate to cereals, pulses, oilseeds, commercial crops and horticulture. The Department, it is observed, has split the major components into crop-specific schemes — and even within a particular crop into various activities — thus multiplying the schemes virtually for all the components. In each scheme related to a crop, be it cereal crop, oilseeds, pulses or horticulture, there are common components for providing subsidy and loan. There are subsidies on many components such as seed and planting material, production of breeder, foundation and certified seeds and also for distribution apart from subsidy for transportation, front line and field demonstrations, farmers' training, subsidy on agricultural implements, micro nutrients, and the like. In case of horticulture, subsidy is provided for nurseries, planting materials, area expansion, workshops, seminars and publicity including irrigation devices. For example, in ICDP rice, subsidy is on all these components and when a scheme is considered for pulses or oil-seeds, the same components also figure there. This, it is seen, results in overlapping of subsidy on different crops under various schemes; a cluster of farmers in a particular area, then, could avail subsidy on implements, on micro-nutrient or on sprinkler sets under more than one scheme. Further, for training front line demonstration and field demonstrations expenditure could have been minimised to a large extent if these were organised on cropping system- based approach instead of a crop-specific approach.

26. From early 1960s/70s, schemes are being implemented without having any evaluation done to know their shortcomings or impact. While doling out money, due consideration is not given to the likely delivery of inputs. For example, money is invested in revival/ modernisation of sugar mills but after modernisation the mills are in red, their net worth completely eroded. A major problem being faced by those mills, i.e. artificially high state-administered prices of sugar cane, has not been addressed.

27. The Ministry has now submitted a proposal for macro management scheme which is reportedly based on area approach rather than crop approach. Yet it has not spelt out how a merger of 34 schemes (28 + 6 being weeded out) would assist states and what are the activities that will be supported through the macro management

programme. There is no information on manpower created for the Department-run 147 schemes at the Central, State and district levels and how this manpower would be re-deployed after macro management scheme becomes operational. As and when macro management scheme becomes operational, 31 more schemes would become redundant on which the Department has yet to take a view. It is high time the Department carried out a detailed exercise on convergence and weeding out of existing schemes. Instead of 147 schemes that are currently in operation, it would appear, 8 or 9 schemes would suffice to address the problems in Agriculture Sector in a focused and cost-effective manner.

28. There are 314 Krishi Vigyan Kendras (KVKs) established, but DAC's schemes make very little reference to use of those Kendras in extension services. Presumably they are working in parallel. Instead of running parallel extension services by ICAR and DAC there is a need to decide which agency should handle extension services. Similarly, subsidy may not be necessary for crops or activities that are commercially viable. Consider the support being provided for seeds; yet less than 10% of the total requirement of seeds is met through seed producing agencies and the rest 90% by farmers/private sector enterprises. One can justify subsidy for propagation of new technology including varieties, production of breeder and foundation seeds but their multiplication and distribution could be left to market forces. State Agricultural Universities have surplus land which they could profitably utilise for production of foundation/certified seeds on a commercial basis. Similarly, the Seed Corporation of India and State Seed Corporations may be made viable on commercial lines. Another area of concern is the huge budgetary support to National Cooperative Development Corporation (NCDC) every year. Planning Commission suggested that NCDC work on the lines of financial institutions and outstanding Government loans be converted into equity to enable the Corporation to leverage the money and do funding of the cooperative sector units on a much larger scale without recourse to budgetary support. Response from the Department is still awaited.

Lack of convergence in other social sectors

29. Absence of convergence of delivery mechanism and the resulting duplication of efforts could be seen in many schemes initiated by the Ministries. For instance, Ministry of Social Justice & Empowerment had formulated a Centrally Sponsored Scheme of National Programme for Rehabilitation of Persons with Disability (NPRPD) in 1997. The scheme involves appointment of 32,000 Community Based Rehabilitation Workers and 3,200 Multi-purpose Rehabilitation Workers, apart from creating 160 District Rehabilitation Centres and Apex Institutions at the State and national levels. The objectives of rehabilitation are also met under different schemes of Ministry of Health & Family Welfare, Ministry of Social Justice & Empowerment (national institutes for different disabilities like orthopaedically handicapped, visually handicapped and mentally handicapped), Ministry of Human Resources Development, Ministry of Labour and Ministry of Rural Development.

30. A similar scheme 'Kasturba Gandhi Swatantrata Vidyalaya Scheme' (KGSVS) was formulated by the Ministry for improving literacy among women in backward communities. The scheme aimed at establishing 500 residential schools in districts where women literacy was found to be less than 10 % as per 1991 Census. Ministry of Social Justice & Empowerment itself is implementing other schemes for backward communities, like Residential Schools for Scheduled Caste (SC) Girls, Residential Schools for Scheduled Tribes (ST) Girls, Educational Complexes in low literacy pockets for Development of Women Literacy, Ashram Schools in Tribal Areas and Hostel facilities for SC/ST Girls. All these aim at basically improving the women literacy in backward areas. Department of Women & Child Development is operating a scheme for raising the status of girl child by providing incentives for education throughout the country. Apart from these, Department of Education is operating externally aided and domestic projects like District Primary Education Programme (DPEP), Shikshakarmi, Lokjumbish, Mahila Samakhya, Operation Blackboard and Non-Formal Education – all aimed at improving basic literacy throughout the country.

31. There are a number of programmes in implementation aimed at improving the economic and social status of women, spread across various Central Departments like Departments of Women & Child Development, Rural Development, Agriculture, Education, Health & Family Welfare and Labour. At the beginning of Ninth Plan, there were about 17 independent schemes under implementation through the Department of Women & Child Development — all aimed at development of women. These include:

(i) Hostels for Working Women

(ii) Setting up of Employment & Income Generating Training for Women (NORAD)

(iii) Support to Training-cum-Employment Programme (STEP)

(iv) Short Stay Homes

(v) Education Work for Prevention of Atrocities against women

(vi) Rural Women's Development & Empowerment Project

(vii) National Resource Centre for Women

(viii) National Crèche Fund for Women

(ix) Strengthening of WCD Bureaus

(x) Mahila Samriddhi Yojana

(xi) Integrated Women Empowerment Project

(xii) Condensed Courses of Education & Vocational Training

(xiii) Socio-Economic Programme

(xiv) Awareness Generation Projects

(xv) Organisational Assistance to Voluntary Organisations

(xvi) Grants in Aid to Voluntary Organisations in the field of Women & Child Development; and

(xvii) Indira Mahila Yojana

32. A major initiative viz. Mahila Samriddhi Yojana was wound up in 1999-2000 due to unviable operational costs. The recast "Indira Mahila Yojana (IMY) [1999]" envisages a holistic approach to tackling problems of women by creating an organisational base for them in all parts of the country to come together through Group Mechanism. The Department did attempt to converge seven of its schemes with IMY: Mahila Samriddhi Yojana, Setting up Employment & Income Generation for Women (NORAD), Support to Training-Cum-Employment Programme (STEP), Awareness Generation Project, Rashtriya Mahila Kosh (RMK), Organisational Assistance to Voluntary Organisations and Education Work for Prevention of Atrocities Against Women. An issue, however, which could not be crystallised at the time of approval of the scheme is linkage with similar schemes in other Ministries. For instance, Department of Rural Development's project DWCRA (Development of Women & Children in Rural Areas) — now merged with Swaran Jayanti Swa Rozgar Yojana) — has components for Group formation and income generation. At present, there are about 2.67 lakh groups under this scheme covering 3.5 million target population. In addition, all the components of Swaran Jayanti Swa Rozgar Yojana of Department of Rural Development have sub components on Womens' Development. Under Jawahar Gram Samriddhi Yojana about 30% of employment opportunities are reserved for women and under Indira Awas Yojana housing priority is given to unmarried women and widows. The Reproductive & Child Health (RCH) programme of Department Health & Family Welfare has a comprehensive 'Information Education And Communication (IEC)' programme. Since any programme on Women Development will be having an IEC component, there is immense potential for one Group working on awareness generation incorporating all aspects of womens' problems in a unit, be it a block or a district. Since imparting of literacy should go hand in hand with other developmental programmes, implementation of the Adult Education Programmes of Department of Education should be ideally coordinated with the activities of Self Help Groups (SHGs). In this context, the need for coordination between SHGs and the wide network of vocational training institutes for women under the Ministry of labour cannot be overlooked. The National Vocational Training Institute, Noida (UP), and 10 Regional Vocational Training Institutes for women in different parts of the country and about 400 Industrial Training Institutes including ITI wings for women impart training to women with self employment/employment potential. SHGs can be used as a centre for disseminating information on the availability of courses in these training Institutes to women in the area. The Ministry of Labour is also implementing a scheme on Grants-in-Aid to Voluntary Orgainsations for helping women workers to become aware of their rights and opportunities and also become economically independent.

33. There are also small localised schemes being taken up in different sectors. Department of Education implements Mahila Samakhya Yojana, aimed at empowering women through education, with a Ninth Plan outlay of Rs.35 crore. A scheme on 'Women in Agriculture' is being implemented by Department of Agriculture which aims at organising/identifying farm women groups for channelising all the agricultural support services to make them 'Self Help Viable Units'. The scheme is being taken up as a pilot basis in one district each in seven states.

34. One common feature in all these disparate schemes is creation of SHGs. Possibilities of having different SHGs in one block/district dealing with different programmes without much interaction with each other cannot be ruled out. An ideal approach would be to have a district/block plan for women which would identify their total needs in that particular block; the demand may then be met through pooling of resources of various Departments. The success of this approach would depend on inter-departmental co-ordination which cannot be taken for granted, going by past experience.

Schemes for Aged

35. There are three major schemes which are under operation at the Central Government level aimed at offering support and care to old persons; these would cover indigent senior citizens who have no income of their own. A 1995 National Old Age Pension Scheme (NOAPS) provides pensions at the rate of Rs. 75 per month to 53.35 lakh destitutes aged 65 and above. In 1999, Department of Rural Development, which is the Administrative Ministry for NOAPS, initiated another scheme called 'Annapurna'

aimed at persons above 65 who though eligible for old age pensions remained out of NOAPS' reach. However, departing from the income route to security followed in NOAPS, Annapurna aims at food security through providing 10 kilograms of food grains per month free of cost to the targeted population. The identification criteria remain the same. Annapurna could be a non-starter at the field, it was suggested, because it may prove unviable to transport 10 kg of food grain every month for beneficiaries in a panchayat, who may number 4 or 5; quite likely, the food grains may not reach the beneficiary after all. Also, Gram Panchayats for most part have a poor system of Fair Price Shops (FPS); to make the success of the scheme depend on these ill-functioning FPS may not be result-oriented. Apprehensions have been expressed that the local Food Corporation of India or the State Food Corporation may try to dump bad quality food grain on to the poor. An ideal option would have been to increase the beneficiaries under NOAPS by 20%, rather than initiate a new scheme, it was suggested. A merger with NOAPS is seen as the only solution if Annapurna fails to take off.

36. The Ministry of Social Justice and Empowerment is implementing an Integrated Programme for Older Persons by giving assistance to voluntary organisations for setting up/continuing Old Age Homes, Day Care Centres, Mobile Medicare Units etc. for the Aged. The scheme which was revised in 1999 has provisions for Self Help Groups, Associations of Older Persons, Health Care, and Housing and Income Security needs. Since the scheme is kept unstructured, with flexibility given to Non Governmental Organizations (NGOs) to take up activities relevant to the situation, it is not clear how requirements like income security needs are going to be met through the scheme. Health care of the targeted persons could be met by the primary/secondary health care structure provided by respective State health system.

37. Several national programmes are in operation in Health Sector pertaining to communicable diseases such as Malaria, Leprosy, T. B; those focused on maternal and child health such as Reproductive and Child Health (RCH) Programme, India Population Projects (IPP); and others dealing with public health problems such as HIV/AIDS, polio eradication and blindness control. Besides these programmes, many states are implementing Externally Aided Projects touching upon the same diseases and same areas.

38. A major problem relates to the distribution of external assistance among different areas affected by the disease. Instead of viewing it in a holistic manner i.e. pooling the resources from different sources, dovetailing them into a national programme and distributing them among various states as per the incidence of disease burden, the approach has been one of ad-hocism. States that could tie up projects with donor agencies, in which the agencies usually have a greater say, are given permission leading to inequitable distribution of external assistance and its benefits. Apart from this, each externally aided programme insists on its own institutional arrangements by way of structure of implementing agency, on monitoring and decision making arrangements, parameters of expenditure for different components, etc. The problem of overlapping/duplication has also been raised in respect of expenditure on equipment, consumables, training, Information, Education and Communication (IEC) and drug supply. Further, while undertaking various activities for delivery services with liberal financing received from donor agencies, attention is not given to the long term issue of sustaining these activities once the external funding ceases to be available. State Governments do give a written commitment to the Administrative Ministry that the liabilities will be taken care of after the cessation of the project, but the commitment is not followed up for its compliance.

39. There is a great deal of enthusiasm in Ministries / State Governments to attract international assistance for specific programmes / projects and in the eagerness to ensure that assistance materialises, various conditionalities imposed by Donor agencies are agreed to at various levels. It has been observed that these projects provide for norms of expenditure in identified activities which are far more liberal than those provided for in the national scheme or which are otherwise in vogue in the state of operation. This leads to a great deal of dissonance in overall programme and has an adverse effect on the quality of implementation in the areas not covered by such projects. These projects also usually provide for a lavish super structure of supervision and control in addition to what is already available in the implementing state for the rest of the programme. It is felt that the expenditure on this account which involves perks of additional posts, consultants, contract staff and other establishment expenses etc. does not lead to accrual of benefits commensurate with the expenditure incurred, is considerably wasteful and is substantially avoidable.

40. Another trend in the recent past has been that states initially negotiate the proposals and at a later stage the proposals get transferred to the Central Ministry. At that stage its inclusion in the Plan becomes at the cost of other national programmes of the Ministry. Even if it is taken in the state sector, commitments of meeting the counterpart funding fail to get honoured at a later stage and Centre was to be looked upon to provide additional assistance to meet the counterpart funding. When proposals are received in Planning Commission at a late stage, lack of times leaves hardly any room for

modifications except at the risk of delaying the whole project. At that stage, it becomes difficult to dovetail the project with required modifications into the overall sectoral priorities and the national programmes and also ensure sustainability of the programmes after the completion of the foreign assistance.

41. There have also been instances of State Governments directly approaching international bodies for funding projects without routing the proposal through the concerned Ministry / Planning Commission. Planning Commission's interventions even in respect of state sector projects is essential to ensure forward and backward linkages with existing programmes and infrastructure. There are also other major issues like proposed area of operation, norms of expenditure in identified activities, super structure of supervision, development of parallel structures of implementation which had to be looked into in an impartial way which the Commission is in a position to do and which the concerned state governments are likely to overlook in their enthusiasm to tie up with the Donor agencies.

42. In the Education Sector the main issue has been existence of disparate schemes working towards Universalisation Of Elementary Education. The strategy of Sarva Shiksha Abhiyan with the objective of combining all these disparate schemes into one composite scheme can initiate convergence and a holistic approach to dealing with problems of the sector. However, the proposal is still at a conceptual level and calls for lots of work to evolve it into one single scheme for elementary education. The externally aided project 'District Primary Education Programme" is now being implemented in about 176 districts in 15 states and there are vertical structures of implementation in operation exclusively for these projects. Since the agreement signed by Government of India with the donor agencies will continue to be in force, which also covers implementation/monitoring structures, it is doubtful how far the convergence envisaged through the new strategy will be practicable. Even in domestic programmes of Central and State Governments, a large number of organisational/ administrative structures at the state/district level are in existence. The requirement for flexibility in respect of various components — presumably to take care of the diversities across areas/districts — may limit the scope for mergers and savings in these components. Much will depend on how successfully the Department of Elementary Education and Literacy is able to work out a state-specific strategy for convergence in consultation with each state.

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Pro-People Policies

43. Government has been implementing several programmes for eradication of poverty in India. While the objectives of these programmes may be commendable, they are based on a belief that spending of money is in itself a necessary and sufficient condition for poverty alleviation. This belief underplays the role of non-monetary policies and the impact they have on the lives of the people. It has been the experience of many grass root workers that availability of funds is no panacea for tackling the problem of poverty, unless accompanied by a pro-poor policy framework. Many examples of anti-poor laws and policies are discussed in the chapters on SCs/STs, forestry and decentralisation. The examples discussed there show that a large number of policies and rules act against the interests of the poor.

44. It is rather said that Ministries are more concerned with the schemes and controlling budgets (and with setting up of new institutions that create opportunities for promotion of bureaucracy and for distribution of patronage for others), and less with policies. This belief under-plays the role of non-money factors and the impact they have on the lives of the people. Often, certain government policies harm the poor much more than any benefit that accrues to them through money-oriented schemes. What is being given from one hand through spending money, much more than that is perhaps being snatched away from the poor by the other hand through existing anti-people policies.

45. Policies and budgetary provisions, despite the rhetoric, have not been integrated so far. They sometimes run on parallel tracks. On lesser-known reason for this isolation is that development and planning in India are associated with spending of money. That Planning = Expenditure = Development is the mindset behind such beliefs. Changes in policy or laws, are not seen as an integral part of the development process because these have no direct financial implications. The Indian planner, unfortunately, has still to understand the difference between planning and budgeting.

CAG's Viewpoint on State Plans

46. In a communication dated September 4, 1998 addressed to the Deputy Chairman, Planning Commission, the Comptroller and Auditor General of India (CAG) has come to the conclusion that public investment has no longer the ability to remain the engine of growth because of total lack of discipline in the states. He has also hinted that there should be drastic reduction in the quantum of central assistance to the states. CAG's findings are quoted below:

a. Approved State Plans and Revised State Plans were far too ambitious. In the event, the actual expenditures were well below the revised plans.

b. State contribution to resources for financing the State Plans in most cases was modest/ negligible. The plans were largely financed by Central Assistance, Market borrowings plus resources transferred for Central Sector Schemes and Centrally Sponsored Schemes.

c. Some states financed more than 100% expenditure from Government of India funds and diverted substantial amounts to Non-Plan Expenditure. One State built a cash balance (held as Treasury bills) of Rs.1,100 crore at the end of the Plan period, producing the rather piquant situation of Government of India borrowing funds from Reserve Bank of India (RBI), giving it to the State, which in turn provided funds to RBI to invest in Government of India Treasury bills.

d. There has been considerable diversion of funds from Centrally Sponsored Schemes and Central Sector Schemes. States' contribution to Centrally Sponsored Schemes has been negligible.

e. The size of the Plan was beyond the States' capacity to implement. Our reports contain enough material on systematic transfer of funds from the Consolidated Fund to the Public Account because expenditure rates were much slower than transfer of resources.

f. These transfers have occurred in the main with regard to Social Sector. There is enough evidence in the State Reports of transfer of funds to Public Account, Savings and, in many cases, diversion of funds to other sectors. In other words, outlays on Social Sector were beyond the implementation capacity of the State governments.

g. Given the difficult situation of Union finances, the large fiscal deficit and the considerable inflationary pressures *it is a moot point whether the present policy of generous transfers to the States should continue.*

h. *Public Investment no longer has the ability to remain the engine of growth.* Pay Commission obligation is virtually the last straw.'

i. As the country moves towards the next Plan and the Commission undertakes exercises to prepare the Plan some of these issues would require consideration before *adopting the age-old approach of 'the bigger the better.'*

47. While quoting from the letter above, it may be stated that the Planning Commission does not share CAG's pessimism or the recommendation to reduce central assistance. The situation though grave need not be viewed as one without redemption. Far from cutting down on central help to the states, the situation requires increasing assistance, though linked to specific projects and policies. The Planning Commission would also resist the tendency of Central Ministries to control expenditure on social sector by proliferating Centrally Sponsored Schemes; quite clearly, these subjects are in the state domain and most funds on these programmes must be a part of the state plans. However, the Planning Commission would like to improve the effectiveness of public expenditure in these sectors by better monitoring and impact studies so that approved policies are not lost sight of. The states would gain in fiscal respectability if they adopt the agreed measures. Alongside, it is suggested, there must also be a system of strong disincentive of losing out on central assistance if the states do not put in place measures like hiking user charges, however unpopular, or improving governance.

48. The extent of adjustment required on the part of states should not be under-estimated. In order to wipe out the revenue deficit and achieve a revenue surplus in five years, some very tough decisions may become necessary. These could include a freeze on new hiring and creation of new jobs of primary school teachers only at the panchayat level, restructuring of power sector, increasing user charges at various levels, liquidation or privatisation of public enterprises, tax reforms, and above all better governance. The adjustment process would be painful; not adjusting will be even more painful. Without structural reform, per capita growth will stagnate and may turn negative (as it has already turned in Bihar), state finances will border on insolvency and the state will not be able to attract private investment, employment will fall and crime rate would increase. With a wide ranging reform programme, on the other hand, states will not only improve the quality of public services and stabilise their debt, but significantly raise per capita growth rate and make a dent on poverty and quality of life of the population.

49. All this is not going to be a painless process. Informal discussions with the states would show that most of them will not take unpopular measures (such as increasing user charges for power and water) on their own unless a super ordinate body monitors and helps them in such an endeavour coupled with a threat of withdrawing assistance in case of default on agreed programmes. In the absence of such reforms, however unpalatable they may be, it is feared that states may be heading towards financial ruin and anarchy. Such reforms have been accepted several times in the past but resolutions have remained mere rhetoric because there were no immediate disincentives associated with inaction.

Good Governance

50. Development is an outcome of efficient institutions rather than the other way around. *Good Governance* has therefore entered the development lexicon, even though how to achieve good governance

remains debatable. There cannot be two opinions that the quality of governance must be improved. Focus must be shifted from maximising the quantity of development funding to maximising of development outcomes and effectiveness of public service delivery. This will help in improving the perception of investors and donor agencies about the investment climate in the States. It will also contribute to increasing the revenue collecting ability of States.

51. An effective and responsive district level field machinery should have a high degree of commitment, motivation, professional competence, adequate knowledge of the job and, above all, integrity. Stated objectives should be internalised and widely shared by the members of bureaucracy starting from Collector down to the village level worker. Discipline needs to be combined with a high degree of innovation. Hard work should lead to output and output should lead to reward. Do the Civil Service and the development machinery conform to these standards?

Present Picture

52. In many states people perceive bureaucracy as wooden, uninterested in public welfare and corrupt. This perception of a collapse of ethical standards has implications for fiscal discipline. Any reluctance to hit at entrenched government servants, take action against corrupt ones, reduce their numbers or make changes in their service conditions to their disadvantage may add to the belief of people that the state apparatus exists only for government servants. The problems of security, a culture of harassment, long delays, administrative secrecy and a seeming inability to check organised power theft - all discourage formal sector, large scale, law-abiding tax paying units from investing in some states. But it is the growth of the latter upon which prospects for future productivity, growth and higher wage jobs will largely depend. States will not be able to end any fiscal crisis they face nor restore growth unless they are able to address problems of governance. Whether the issue is tax compliance or the environment for the private sector or the states' physical and social infrastructure, progress will be impossible without a significant redirection and improvement in the way the states run their administration. Unless massive efforts are undertaken to improve governance and make the administrative apparatus perform what it is paid for, public may not take very kindly to withdrawal or reduction of subsidies.

53. In his address to the National Development Council meeting held on Feb. 19, 1999, the Prime Minister stated:

People often perceive the bureaucracy as an agent of exploitation rather than a provider of service. Corruption has become a low-risk and high-reward activity. Frequent and arbitrary transfers combined with limited tenures are harming the work ethics and lowering the morale of honest officers. While expecting discipline and diligence from the administration, the political executive should self-critically review its own performance. Unless we do this, we cannot regain credibility in the eyes of the people who have elected us to serve them.

> A World Bank study of villages in UP and Bihar reported that health problems are common cause of persistent poverty. Illness of the breadwinner or other members of the family not only reduced their daily incomes but led them to indebtedness and even loss of assets as treatment by government health services was just not available.
>
> Nearly all the informants said transport costs to government centres was too high when the outcomes was so uncertain. *Medical staff assigned to PHC (Primary Health Centres) are usually absent, and therefore a trip to the Health Centre results in waste of transport money. Quality of care was not mentioned as an issue; if care is generally unavailable, its quality is hardly relevant.* Even when PHC staff is on site, they give only prescription as they do not have medicine on hand. Poor patients then must visit the market and incur a second transport expense.
>
> A similar study of the schools showed that in most places either teachers were absent, or teaching was being conducted by proxy teachers who were hired by the regular teachers on very low wages.

54. A note circulated by the Department of Administrative Reforms and Public Grievances (vide its letter No. K-11022/23/96-P dated 6th November 1996) stated:

"The public administration and the civil services at all levels are passing through difficult times in terms of eroded credibility and effectiveness of the civil service, growing public perception of an unholy nexus between certain elements among politicians and civil servants and criminals and increasing criticism of the low level of honesty, transparency and accessibility to the political and bureaucratic elements in charge of administration. The present lack of transparency and the scope for manipulation of the system results in the criterion of merit being undermined by considerations of personal loyalty and complicity with unethical dealings. The absence of a well-defined structure for rewards and punishments and the confusion regarding the desirable service norms for civil service has led to low morale and pursuit of career advancement at the expense of ethical values."

55. A young IAS Officer from Bihar has described the predicament of honest officers in the following terms: "As Project Director I was handling RD funds and it was often a problem to release money to the Block and Panchayats. This was so because the BDO or the Mukhia would immediately take up 'n' number of schemes and distribute the total money as advance to either his own relatives who act as agents or Abhikartas (Junior Engineers) in JRY schemes or the muscle men or petty contractors of the local MLA. If any action is proposed against the BDO or the Mukhias a report has to be sent to the Minister who often does not take any action. This further emboldens the BDO while the Collector / PD gets demoralised. Upright officers have been systematically marginalised by the indulgent political masters who expect a committed bureaucracy. Committed officers enjoy outstanding CRs and foreign training, while upright officers are sidelined in Rajbhasha, Protocol etc. Whey they apply for GOI deputation, all kinds of hindrances are created. This is done to break the upright officer and make him submissive and more committed."

56. Almost the entire social sector programme is implemented by State level field machinery and this emphasises how important it is that field officials, especially at the level of District Collector and Project Director, keep up standards of performance and integrity.

57. The collapse of ethical standards has a number of implications for fiscal discipline. In such a scenario of low institutional capability and poor performance of civil servants it is unfair to expect that the political processes would be totally free from populism. Politics is after all a of the possible', and if the civil service is no longer able to ensure good governance, politicians are forced to resort to populism in order to reach at least some benefits to the people to keep the faith of the voter alive in the political system. Subsidies on water, power and transport help in maintaining the credibility of the democratic system, since the voter does not seem to be getting any other benefit through the vast and ever-growing bureaucratic machinery. A civil service renewal programme which improves public satisfaction, therefore, has to be an essential component of effective implementation of development programmes.

58. Some operational decisions may be required as part of the efforts at good governance, as discussed below.

a. Stability of tenure

59. A malaise-afflicting civil service generally is the instability of tenures; in turn, it leads to a lack of involvement and makes for an inability to contribute effectively to amelioration of the system. According to a study done by the DOPT, the average tenure of 82 non-technical Secretaries in Central Government was less than a year; only six of them were at their posts for more than two years in July 2000. Transfers are sometimes reportedly used as instruments of reward/ punishment; there is no transparency about them; and in the public mind transfer after a short stay is seen as a stigma.

60. Frequent transfers and limited tenures play havoc with public organisations. Respect for authority is whittled away. Rapid changes erode the mandate of the Department or oganisation. It generates a lack of confidence to act firmly and equitably for the public good. An incumbent not sure of how long he will stay may not be able to pay attention to details or master the situation. Other staff in the organisation is also affected by the instability. Hence the need to instil in officials a certain security of tenure in every post, barring cases of promotion.

61. For each state, there could be an average tenure worked out for Collectors, Superintendents of Police (SP), Project Officers, and other key officials. A *stability index* may be worked out for such posts, and a norm of at least two years fixed. The right to transfer should not be exercised by an authority higher than the appointing or punishing authority. This will signal that government does not meddle with transfers of officials at lower levels.

62. For higher ranks in civil service e.g. Chief Secretaries, Secretaries of Government and Directors General of Police (DGPs), the postings may be contractual for a fixed period and suitable systems may be evolved to ensure they are rarely removed before the period of the contract without their consent or explanation.

63. The Transfer Allowance of each department may be so fixed that no authority can transfer more than one-third of a cadre in a year.

b. Transparency and Corruption

64. An air of secrecy pervades government functioning. Decisions are taken behind closed doors. There is need to share information and make the system more transparent. Transparency builds external demand for reform and makes administration more responsive and performance-oriented. Suggestions have been made to enact a Right to Information Act to make things more transparent, curb acts of corruption and check arbitrary exercise of state power. Transparency should permeate all official procedures and systems and people should have access to all relevant public information. For development programmes, muster rolls and information on payment of bills to contractors and the like need to be explained to Gram Sabhas. There is nothing radical about all this; existing rules already provide for such sharing of information but the rules are mostly observed in the breach.

State Governments should issue clear guidelines on the subject.

65. Suggestions have also been made that the Government announce and implement a comprehensive anti-corruption strategy, which may include:

- compulsory retirement of officials whose record and reputation is tainted;
- Strengthening State Vigilance Departments, Lok Ayukt and the anti-corruption branch of the state police empowering them effectively to initiate and pursue investigations independently of government;
- Prosecution of officials against whom there is evidence of corruption;
- Guaranteed protection of civil servants who expose corrupt practices;
- Passing a law which would make all oral orders of transfer illegal as also other administrative matters which interfere with delegated powers.

66. There have also been suggestions that senior officials should make available their property and tax returns for scrutiny. Law Commission has already drafted a Corrupt Public Servants (Forfeiture of Property) Act. It is for the State Governments to act on it; the bill provides for confiscation of ill-gotten wealth. Already, there is a law to confiscate benami properties; the states are required to frame rules and procedures and the number of cases prosecuted under this law could be monitored.

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67. Another area where reforms may be needed relates to *post- retirement bonanzas*. The Fifth Pay Commission, while recommending the age of superannuation at 60 years, suggested abolition of extension in the service rules. Talent, if need be, may be used post-retirement on a short-term consultancy basis to meet specific, time-bound requirement and then the contract terminated. No officer above the age of 60 should be entitled to government housing. Jobs in organisations like Administrative Tribunals, Commissions of Inquiry, Pay Commission, Vigilance Commission and other regulatory bodies may be offered to serving civil servants as against the retired; this will help ease the prevalent congestion at top levels of the civil service.

c. Reduction in Size

68. With the changing role of government, the size and scale of civil service is also liable to change. Efforts may be made to identify surplus staff, set up an effective redeployment plan and devise a liberal system for exit. For the time being recruitment may be limited to functional posts while vacant posts of secretarial and clerical posts may not be allowed to be filled. China offers an example of how in a span of three years the bureaucracy is pruned by 25%.

69. The Administrative Reforms Commission headed by Morarji Desai had recommended the abolition of clerical positions in the secretariat by merging field departments with secretariat departments at appropriate levels and by following decision-making pattern of the army through a single file system. Such move can result in substantial reduction especially in the category of group 'C' employees. Reduction in the fleet of government vehicles and closing down of unnecessary units can also reduce the number of lower level employees in Government. In addition Fifth Pay Commission's proposal to reduce the number of general holidays could help better utilisation of the existing staff. Some posts in each cadre could be pruned.

70. Other specific measures may include:

- A provision already exists to review work of those above 50 years and retire them if not found suitable.
- Encourage officers to join voluntary organisations of repute, educational and research institutes during mid-career. Rules may provide for new recruits to government service to take leave without pay for five years at a stretch after they put in 10 years of service.
- Government servants with only four years left to retire may be offered choice of taking retirement on full salary or retaining government house for the remaining period of their service while their post is abolished.
- Central Government could take a lead and trim its staff especially in Ministries dealing with state subjects and transferring most of Centrally Sponsored Schemes to the states. There may be some control in the Ministries on initial recruitment. Wherever possible, vacancies caused by retirement may remain unfilled or the posts be abolished.

d. Professionalism

71. All talk of excellent or brilliant performance is meaningless unless a bottom line of minimum acceptable standard of performance is stipulated, maybe, at two levels viz. organisational and individual. Each Ministry/ Department of the state government and all departments and agencies under district administration may have a well defined criteria spelt out by which to evaluate performance/non-delivery of promised service by their functionaries. Individual's performance standard needs to be in consonance with organisational performance standards. This will encourage professionalism and relate performance norms to concrete output.

e. Effective Implementation of Development Programmes

72. Implementation of development programmes requires to be made more effective. Close monitoring could be organised in select areas like primary health, primary education, watershed development and empowerment of the local people. The monitoring can be on the basis of a questionnaire designed by select public institutions in consultation with the Planning Commission.

73. Through a process of stratified random sampling, five to ten villages can be identified in every state for impact studies and for making progress report in these sectors. This work can be given either to academic institutes or consultants approved by the Planning Commission or to the Programme Evaluation Unit wherever possible. The allocation of additional funds to the States can be made in such a manner that those who perform better get a corresponding weightage over States that do not implement these programmes effectively.

f. Accountability to People

74. At present the system of government is such that it is difficult for an average citizen to have access to information about schemes and programmes that affect him, and even about his rights and records. The complicated procedures distance government from people who are sought to be provided with services and create potential sources of corruption. Computer-based information systems can help cut out discretion and delay, like installing a system where one inserts a ten rupee note and gets a land ownership record. Each department may have a citizen's charter establishing clearly enforceable norms.

75. Departments such as Police and Revenue which have more dealings with the people may be assessed once in three years by an independent professional organisation, consisting of journalists, retired judges or members of the armed forces, academicians, activists, NGOs, and even retired government servants. The professionals should look at policies and performance and suggest constructive steps for improvement. At present the systems of inspection are elaborate but often preclude the possibility of a 'fresh look,' being totally governmental and rigid. The system needs to be made more open so that the civil service can gain from the expertise of outsiders in the mode of donor agency evaluation of projects and there is a feeling of greater accountability. The survey teams would check out quality of service delivery in key areas, scrutinise policies and programmes and delivery mechanisms. They should elicit views of civil servants on work constraints and on reporting fraud and corruption. Such reviews should form the basis of time bound changes and improvements.

76. Action against corrupt officers in many states cannot be initiated as the power to sanction prosecution is vested in state governments. This may be made a semi-judicial process where a designated authority may sanction prosecution on receipt of complaint from CBI or other agencies.

g. Improving quality of life through greater attention to environment

77. In the last thirty years, there is enough empirical evidence to say that environmental conservation must go hand in hand with economic development; any economic development that destroys the environment will create more poverty, unemployment and diseases and thus may not qualify to be called *development*. For the poor who depend on nature for their daily survival, Gross Nature Product is more important than the Gross National Product. Environmentally destructive economic development will impoverish the poor further and destroy the resource base for their livelihood. Denuded hills and barren pastures push down groundwater levels, reduce availability of organic manure and make for loss of soil and moisture for crops; this affects productivity of rainfed agriculture and income through cattle. For India, environmental concerns go beyond "pretty trees and tigers" and are linked to peoples' lives and concerns.

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78. Better environment and forests involve decisions which may not be all popular: like closing down of polluting industries, controlling vehicular pollution and reducing subsidy on forest raw material. Environment needs greater investment with benefits which are not easily discernible or immediate. Improving governance must mean better policies and more funds for improving the quality of life through greater attention to environmental concerns. A certain part of the additionality of funds would be reserved for forestry and related activities and would be available when the states change their policies in favour of greater peoples' involvement in those activities. How State Governments follow up these policies would need monitoring when allocating more funds for such programmes.

h. Decentralisation and Redefining Role of Government

79. The 73rd Constitution Amendment envisages a polity where more and more powers are decentralised to the third stratum, but in many States administrative and financial powers are concentrated in Secretariats and Directorates. This centralisation of authority is seen to facilitate political corruption while making for long and tedious processes to the inconvenience of the public.

80. Every organisation/Department/Ministry needs clearly to work out a plan for devolution of powers. This decentralisation would mean greater responsibility down the line accompanied by a delegation of powers, both administrative and financial. Devolution of spending responsibilities and revenue raising powers to elected local bodies can ensure significant gains in service quality and accountability. Local Government finances must be strengthened. Along with this the capacity of rural elected bodies to make efficient use of devolved resources must also be reinforced. There is need to revive the system of inspections and summary recording of observations and work done.

81. De-regulation has made almost no impact at the state level. The systems of buying and selling land, issue of a ration card or refund of security, and Rent Control Acts, all need a thorough revision. One can set up an industry worth crores of Rupees in India without any licence today, but it is not as easy for a farmer to set up a brick kiln unit, a rice shelling plant or a cold storage without bribing. A simple operation of converting prosopis (a shrub growing everywhere in states like Gujarat and Tamil Nadu) into charcoal, which can give employment to thousands of people, requires four different permits: one to cut the tree, another to transport it, a third to set up the kiln which costs only a few thousand Rupees, and the fourth one to move transport charcoal which is also a forest product. In another state, tribal women are prohibited from doing value addition to gathered products, such as brooms; they must sell it to the designated contractor who enjoys a monopoly and pays pittance to the tribals. Almost all occupations in urban informal sector, such as hawking, small manufacturing in residential areas and the like, are illegal! An informal sector that provides maximum employment is mostly declared illegal and is subjected to the whims of law enforcing agencies.. A Committee may be set up to identify specific laws and rules that hamper entrepreneurship. Also, a systematic review is needed to define areas from which government must withdraw, albeit in a phased manner, and identify Departments that need to be wound up. It is also suggested that officers be encouraged to take mid-career sabbatical and live in rural areas to check out how the various organs of administration exploit the common man.

82. If some poverty alleviation programmes have not helped the poor, part of the blame should go to administrative structures and organisational weaknesses. Improving the administrative apparatus by itself may put pressure on the exploitative structure to change in favour of the poor. The establishment and strengthening of countervailing non-exploitative institutions may be more effective in enhancing the bargaining power of the poor than attempts at changing the structure.

Summing up

83. In its Human Development Report, 1997, the United Nations Development Programme (UNDP) has summed up elements of good governance thus: people's participation, rule of law, transparency, responsiveness, consensus orientation in decision-making, equity, effectiveness and efficiency, accountability and strategic vision. These characteristics and a corruption-free administration can be built into the system in a number of ways. There is no uniform recipe or panacea for all situations. Any strategy for good governance must have the following ingredients : (a) people's participation; (b) citizens' charter; (c) civil services reforms; (d) effective monitoring and evaluation; and (e) external oversight mechanism.

84. Attempts to reform bureaucracy have commonly not met with success. In India too, over the years, several consultants, committees and commissions have been set up to revamp bureaucratic administration. The feeling however persists that only cosmetic changes are achieved and that the bureaucracy still retains its diffused responsibility, excessive scrutiny and excessive blocks to taking action. There is too much centralisation; there are too many executive functions and tasks which could have been delegated to the lower levels of governance; too many levels through which a case has to pass before a final decision is taken, too much of sequential (rather than parallel) processing of cases where multiple ministries and departments are involved; too little effective monitoring despite numerous audit reports, inspections and other control mechanisms and poor inter-departmental coordination. Indian administration, it would seem, comes alive at best during a crisis but it remains unresponsive while performing routine functions.

85. There have been determined efforts in countries with an effective bureaucracy to decentralise authority, insulate administration from political influence and strengthen accountability for performance. The Singapore Statutory Boards, for instance, have full autonomy to hire, fire, promote and generate resources to meet their expenditure, subject however to Parliamentary approval for their policy framework and accountability for performance. In Britain, under the financial management initiative, some autonomous executive agencies have been set up ensuring decentralisation with accountability through policy frameworks. In India decentralisation with accountability has made some progress in Central public sector enterprises but much work needs to be done elsewhere. It is clear that efforts at reducing the size of government, ensuring better goal orientation and stability of tenure leading to specialisation are all time consuming. But the country will have entered the 21st century with a vision for the future if those efforts are initiated and the process is pursued in right earnest.

Annexure

A NOTE ON PEOPLES' PARTICIPATION

"Peoples' participation" has become a standard rhetoric in India today. Different actors interpret it differently. One view is that participation means getting people to agree to and go along with a project that has already been designed for them, or to get support of a few leaders. This has been the approach in many development schemes that did not work. People did not identify themselves with the assets created such as the hand pump or trees planted, nor did they undertake the responsibility of maintenance of assets. "I manage, you participate", was the dominant underlying principle behind such projects. These tended to try to make people aware of their responsibility without giving them any authority to spend funds or to manage assets. People's participation was then expressed not in a manner that would establish their rights over assets, land or its produce. The important question is, participation for whose benefit, and on what terms?

Participation should include the notions of contributing, influencing, sharing, or redistributing power and of control, resources, benefits, knowledge, and skills to be gained through beneficiary involvement in decision making. Participation is a voluntary process by which people, including the disadvantaged (in income, gender, caste, or education), influence or control the decisions that affect them. The essence of participation is exercising voice and choice, and developing the human, organizational and management capacity to solve problems as they arise in order to sustain the improvements.

Half hearted measures towards peoples participation have only resulted in wastage of funds with no gains. It must be therefore understood as a process by which the people are able to organize themselves and, through their own organization, are able to identify their own needs, and share in the design, implementation and evaluation of the participatory action. Thus various elements of participation are decision making at various stages, control and management of funds and resource, share in usufruct and final produce, and certainty of benefits. In other words, participation should not only stop at information sharing or consultation, but decision making and initiating action are important and essential components of participation.

Initiating Action - Initiating action by the people represents the highest level of participation that surpasses involvement in the decision making process. Self-initiated actions are a clear sign of empowerment. Once people are empowered, they are more likely to be proactive, to take initiative, and to display confidence for undertaking other actions to solve problems beyond those defined by the project. This level of participation is qualitatively different from that achieved when people merely carry out assigned tasks.

Why participate - Participation engenders financial, social, and psychological costs as well as benefits. People or beneficiaries are likely to participate when their benefits outweigh their costs, just as a government department is likely to foster beneficiary participation when the benefits of doing so (for Forest Department, for instance, higher rate of survival, greater sustainability, and improved public image) outstrip the costs to the agency. However, knowledge about the costs and benefits of participation remains limited; little guidance about budget allocations appropriate to induce participation is available to the people or even field staff of government departments. Nevertheless, from the perspective of both, government department and NGO, people's participation (as an input or an independent variable) can contribute to the achievement of four main objective: *effectiveness; efficiency; empowerment; and equity.*

Who participates - The most important characteristic that brings people together to take action is commonality of interest. This is the glue that binds people who may otherwise not have much in common in terms of geography, wealth, power, leadership, degrees of organization, social cohesion, caste, income, gender, or education. Commonality of interest may supersede other distinctions, including the entity of 'community' (or village or other administrative label of convenience).

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Outcomes and indicators of participation - Participation in decision making is an important capacity building process. As people participate in making new decisions and solving problems, learning takes place. This learning is internalized, because it is accomplished experientially. It therefore leads to changes in attitude, behaviour, confidence, and leadership. Newly acquired knowledge is therefore the first outcome of participation.

Empowerment is a result of participation in decision making. An empowered person is one who can take initiative, exert leadership, display confidence, solve new problems, mobilise resources, and undertake new actions. Empowerment, it is hypothesized, is an important outcome of high levels of participation involving control over decision making for a range of activities. Hence empowerment is a leading outcome of successful capacity building at the individual and institutional levels.

The third outcome is organization building. Decentralized programmes require strong local organizations. When local organizations get the opportunity to manage resources and support development, they can become stronger. Participation in decision making is hypothesized to strengthen the capacity of local organization to carry out activities. Local organizations can be a few people working on joint management committees, or a village council, or organizations of several villages.

These three outcomes of participation – learning, empowerment, and a vibrant organization – need to be measured through observable indicators, which will vary from project to project. Each project must develop clearly observable indicators on people's participation, so as to judge whether they are on track or not. Such indicators should then be given to monitors and evaluators, who have to do mid-course evaluation and impact assessment.

When to participate - One of the characteristics of participation is that it cannot be turned on and off like a tap, that is, 'now you participate, now you don't'. Participation is an evolutionary process that gathers momentum and defies breakdown into neat, self-contained categories, except for analytical purposes. Establishing participation is particularly important in the early stage, because expecting responsible behavior in the later stages is not only misguided but may result in ineffective projects. Participation should be viewed as a process that starts with planning of mangrove projects and ends with maintenance and usufruct sharing, rather than as an element that can be injected in the later stages of a project whenever outsiders determine.

To sum up, ensuring the success of water supply schemes or rehabilitation of degraded lands would require strong people's groups with enhanced management capacities which should then be harnessed by the concerned government department or NGO. This alone will fulfil the objective of the project for successful management of the assets created.

CHAPTER 32

DIRECTIONS FOR REFORM

The process of economic reforms has now been in progress for ten years. There have been substantial achievements in the period, with India moving into the list of the ten fastest growing countries in the world. The consensus on reforms has deepened as successive Governments belonging to different political parties have pushed forward the reform agenda. However, new challenges have also arisen. The pace of reduction of poverty is less than what was hoped. The acceleration of growth has not been uniform across States. The fiscal position of the Centre or the States remains precarious. The pay increases implemented on the basis of the recommendations of the Fifth Pay Commission, which in fact, went beyond the Commission's award has imposed a heavy burden on the governments particularly in the states. Steps to restore fiscal stability are urgently needed. The process of reform is also not complete. Continuing reforms are needed in various sectors of the economy and also in the administrative apparatus. The second generation of reforms should constitute a programme of action aimed at preventing another major economic crisis and should stimulate rapid economic growth in the country during the new century. In what follows an attempt is made to outline a programme of reforms for the country embracing the multitude of sectors encompassing it.

Fiscal Stability

2. The incurring of heavy fiscal deficits has led to a huge public borrowing programme by the government of India in recent years resulting in a heavy interest payment burden. The interest payment burden as a proportion of net tax revenue of the central government is expected to be 69.3 percent according to 2000-01 budget estimates. This is an indication that the public borrowing programme in India is becoming unsustainable.

3. The need to bring down the levels of deficit financing in the central budget is well recognised. The problem with a high level of fiscal deficit is that it ultimately results in a low levels of public as well as private investment in the economy. It leads to low levels of public investments since the increasing interest payment burden resulting from high fiscal deficits ultimately results in a low level of plan expenditure. At the same time, a high level of fiscal deficit can also result in crowding out of private investment in productive ventures. Some of the reforms that are required to tackle the problem of fiscal and revenue deficits include mobilising more resources through taxation, increase in user charges of services provided to the public, controlling the growth of non-plan expenditure and working out programmes for down-sizing of government.

4. In the field of taxation, there is a need to ensure better compliance and check tax evasion. The tax administration needs to be modernised both in its attitude as well as its physical facilities. There is need to introduce modern concepts of information technology, computerisation and cost effective administration. Tax administration should be made accountable through the system of reward and punishment. There should be strict implementation of tax laws and all tax related disputes need to be decided in a definite time frame.

5. The tax laws in the country need to be simplified and made easily comprehensible to the public and simultaneously a great deal of the exemptions and deductions that are built into our tax structure should be done away with. What is required is a simplified tax structure covering a large base with few exemptions and deductions combined with tax rates that are low and reasonable and what the public considers as just. This is the best recipe for a buoyant, progressive and development oriented tax structure. Buoyancy in the tax system should be in-built and follow as a result of overall development in the economy rather than as a result of higher rates of taxation.

6. The present tax structure with multiple tax rates needs to be replaced by a more transparent structure such as a Value Added Tax (VAT) which does not have a cascading effect. In view of India's commitment to gradually reduce custom duty rates to international levels, it is imperative to introduce the VAT system in a time bound manner.

7. **Reforms in State Finances:** The financial crunch faced by the state governments is more acute than that faced by the central government. Failure to contain the rising wage bill, evasion of taxes, unsustainable interest liabilities and reluctance to raise additional resources are some of the main causes. The combined net losses of State Electricity Boards has crossed Rs.10,000 crore. The additional fiscal burden on account of pay revision is roughly estimated to be about Rs.20,000 crore per annum on the state governments.

8. With very little own funds and decelerating central assistance, states have been depending more and more on high cost borrowings for financing their plans. As a

result, the interest burden has been mounting. One aspect of the economic reforms has been increased reliance on market forces and private investments. The available statistics on private investments since 1991 indicate that they have been flowing mainly into those states which are more developed with better infrastructure and relatively efficient administration. The official aid flows from bilateral and multi-lateral agencies also show a similar trend of favouring more developed states. These are clear signals of diverging growth prospects of developed and developing states which do not augur well for the Indian economy and polity.

9. Some of the measures that need to be implemented by the states in this connection are:

- States must augment their tax and non-tax revenues. The tax/SDP ratio must be raised through rationalisation of tax structure and improvement in tax administration.
- Non-tax revenues can be substantially increased by revision of user charges on public services.
- The growth of non-plan revenue expenditure needs to be arrested and the efficiency and accountability of public expenditure needs to be enhanced.
- In particular, there is an urgent need to control the fast-growing burden of subsidies by ensuring that these are transparent and closely targeted.
- State level public enterprises must also make their due contribution to the resource mobilisation efforts of the states. Restoration of the financial health of SEBs, and improvement in the functioning of SRTCs are necessary.

Financial Reforms:

10. The next phase of reforms in the banking sector should lead to

- Strengthening the foundations of the banking system,
- Streamlining procedures, upgrading technology and human resource development, and
- Appropriate structural changes in banking.

The reduction of Non Performing Assets (NPAs) in the banking system has to be accorded top priority to restore the banking sector's health to prepare it for the emerging capital account convertibility scenario.It is necessary to reduce the NPAs by ensuring that fresh advances do not become non-performing assets. Reduction in NPAs could be facilitated through high quality credit approvals and also by strong programmes of asset recovery.

11. The following major recommendations of the Khan Committee and the Narasimham Committee needs to be considered for implementation:

- A progressive move towards universal banking and the development of an enabling regulatory framework for the purpose is needed.
- With convergence of activities between banks and DFIs the DFIs over a period of time should convert themselves into banks.
- A DFI which converts into a bank should be given some time to phase in reserve requirements in respect of its liabilities to bring it on par with the requirements relating to commercial banks.
- There is a need for speedy implementation of legal reforms in the debt recovery areas of banks and financial institutions which should be given priority.
- Existing laws may need to be updated to bring clarity in dealing with some of the issues that are likely to emerge following the introduction of computerisation and technologically advanced communications in banking.

12. There is a need for formal accession to core principles announced by the Basel Committee for effective supervision. The proposed framework as drawn up by the committee consists of three pillars, namely minimum capital requirements, supervisory review process and effective use of market discipline. For the minimum capital requirements, the committee has proposed a modified version of the existing Accord, whereby for some sophisticated banks use of internal credit ratings for a more accurate assessment of a bank's capital requirement in relation to a particular risk profile would be allowed. The proposed second pillar would seek to ensure that a bank's capital position is consistent with its overall risk profile and strategy and would encourage early supervisory intervention. The proposed third pillar would encourage high disclosure standards and enhance the role of market participants in encouraging banks to hold adequate capital.

13. The insurance sector in the country is in the process of being opened up to private and foreign investment. This will result in more competition, more resource availability and availability of more consumer friendly products. However, it has to be ensured that opening up does not result in a situation of over investment in this sector resulting from exaggerated demand projections as occurred in the case of the telecom sector.

Box : 1
Fiscal Reforms in the States

Fiscal reforms in the states could consist of the following elements:

1. **Tax Reforms:** A tax reform programme which includes rationalisation of tax structure is an area of high priority. It is essential to restore the buoyancy of tax revenues and increase tax/SDP ratios.
2. **Expenditure Reform:** States must initiate comprehensive expenditure reform programmes to reduce unproductive and wasteful expenditure on the one hand and improve the quality of expenditure on the other. Unwarranted rapid increases in salaries and subsidies of recent years must be curbed. On the other hand, capital expenditure and maintenance, which have been experiencing shortfalls, must be protected. Wage bill of the states needs to be closely monitored.
3. **Improvement in Fiscal Administration and Management:** Strengthening, streamlining and simplification of the tax machinery is a must to check tax evasion and promote tax compliance. It will also help to improve business environment. Moreover improved management of expenditure will ensure more efficient use of scarce funds. This will entail reforms in budgeting, accounting, internal control and audit, cash and debt management and management information system.
4. **Public Sector Enterprises Reform Including Disinvestment:** Public sector enterprises, in particular the SEBs and the SRTCs have proved to be a big drain on states' resources. States must implement reforms to bring these enterprises under professional management and run them in a commercially viable manner.
5. **Power Sector Reforms:** Power sector reforms are essential if states are to get back on the path of fiscal sustainability. SEBs are the single most important drain on states' resources. Power tariffs must ensure cost-recovery and the culture of non-payment of dues by customers to public utilities must be curbed.
6. **Improved Infrastructure:** The state of infrastructure, both physical and social, is acting as a drag on growth in most states. Infrastructure sector calls for urgent intervention if the growth process is to be accelerated and states finances are to benefit. More efficient management, higher investment and greater cost-recovery would, in general, be required in these areas. User charges for water, transport and other services must be suitably enhanced.

Infrastructure

14. **The Transport Sector :** Broad estimates of investment requirements till 2010 in the transport sector indicate that it will be necessary to increase annual investment levels to three to four times the present level in real terms. The financing of investment on this scale is a massive task. It will require a substantial increase in budgetary support to the sector, but recognising the scarcity of budget resources the bulk of the effort to meet the additional investment requirement has to come through generation of resources within the sector itself. The pricing of transport and user charges will therefore have to play a much larger role than in the past.

15. Pricing in the transport sector should conform closely to the cost of services and actual resources used in its production, having regard to scarcity values of these inputs. Subsidies in transport will have to be limited to those areas where their retention on societal considerations is overwhelmingly justified. Wherever subsidies are retained, they must be made as explicit as possible so that they are clearly identifiable to ensure transparency. The instruments of pricing, taxation and subsidy should be used to achieve desirable socio-economic objectives like development of an economically rational inter-modal mix, promoting efficiency in operations and generation of adequate resources for sustaining growth. 32

16. It is necessary that all the social costs must be taken into account in pricing transport services preferably through fiscal measures. While pricing should be cost-based, the policy of improving productivity should be relentlessly pursued.

17. It will be necessary to bring about major changes in our rail tariff policy in the light of the above objectives. Some subsidisation of rail tariff is unavoidable in our situation. However, the extent of subsidisation must be limited to where it is absolutely unavoidable. Large scale cross subsidisation of passenger services by overcharging certain categories of freight is not justifiable as it deflects freight traffic which should be carried by the railways to road thus preventing the railways from performing according to their comparative advantage. The railways should be corporatised and its finances should be delinked from that of the consolidated fund of India.

18. The road transport services in most cases do not cover all the costs particularly the infrastructure and external costs. In order to have optimal inter-modal mix it is necessary to incorporate these costs into transport pricing. In civil aviation, the cost of infrastructure should also be taken into account while pricing transport services.

19. The bulk of resources for financing the development of the transport sector should come from generation of internal resources and borrowings or through private sector participation. In sectors traditionally funded by the states such as roads, it is essential to explore innovative avenues for mobilisation of resources. The levy of tolls on roads where tolling is possible would provide an additional, albeit, limited source of funding. It is, therefore, necessary to implement indirect user charges in the form of a cess on petrol and diesel which are the principal funds used in the transport sector - the proceeds to be earmarked for the development of roads. A step in this direction has already been taken.

20. The basic infrastructure with a few exceptions is in the public sector. Efforts should be made to involve the private sector in provision of these basic infrastructure facilities as well. In fact, in the port sector, initiative has already been taken to involve the private sector. In case of airports, it is proposed to involve the private sector through long term lease route.

21. Road construction will remain in public domain to a large extent. There is a niche for private sector participation in development of roads where the traffic densities are extremely high but the total scope for private sector investment in roads is likely to be limited. There is much greater scope for private investment in bridges and bypasses. In order to involve private sector in development of highways, the public sector funds should be used in the form of equity and/or grant so that the project may become more attractive for the private sector.

22. **Power Sector:** Reforms in the energy sector should start with the restructuring of State Electricity Boards. Unbundling the SEBs and separating generation, transmission and distribution into separate corporations will make it possible to monitor efficiency levels in each activity and also to create appropriate incentives for efficiency in each area. Unbundling will also make it easier to allow entry of private sector operators in each area in a suitable manner which ensures competitive efficiency. Accordingly several states have already initiated power sector reforms along these lines.

23. Reform of the power sector would be greatly aided by the establishment of independent regulatory agencies responsible for setting tariffs and regulating power purchase agreements. The Electricity Regulatory Commission Act, 1998 provided the legal basis for setting up of a commission at the central level with separate commissions at the state level.

24. The state governments may embark on a gradual programme of private sector participation in distribution of electricity. The process of private participation should be initially in one or two viable geographical areas covering both urban and rural areas in a state and the state may extend them to other parts gradually. The situation regarding induction of the private sector in distribution will vary from state to state. The nature of generation plants and the pattern of loads will have a bearing on the timing and scope of this policy reform. There is a strong case for privatising distribution in order to reduce high level of theft and pilferages. A beginning can be made by mandatory privatisation of distribution in urban areas with population of one million and above.

Box-2

Power Sector Reforms in Madhya Pradesh

Total installed capacity of thermal and hydroelectric power in Madhya Pradesh as on March,1998 was 3,814 MW with additional allocation of 1,773 MW from central sector power stations. The gap between electricity demand and available generation capacity is widening, and the present peak demand-supply gap is estimated to be about 1,300 MW. Madhya Pradesh has an extensive transmission and distribution network; however, the state's large size and its low population density make the cost per consumer of expanding the network among the highest in India.

The financial performance of the Madhya Pradesh State Electricity Board (MPEB) has rapidly deteriorated, and the entity is increasingly relying on budgetary subsidies to achieve the 3% minimum rate of return on net fixed assets stipulated in the Indian Electricity Supply Act. The financial problems are mainly due to low tariffs for agriculture and domestic sectors, which together raise 11% of revenue while consuming almost 50% of the energy. MPEB incurs annual losses of more than Rs.1500 crore on account of sale of subsidized electricity to agricultural consumers alone, of which it receives a subsidy of about Rs.400 crore from Government of Madhya Pradesh and the rest through cross-subsidization, particularly high tariffs on industrial customers.

Government of Madhya Pradesh envisages fundamental reform of the power sector. Overall objectives of the reform include (i) achieving commercial efficiency; and improving viability of the sector; (ii) increasing operational efficiency through enhanced competition, managerial autonomy, and higher accountability; and (iii) creating an enabling environment for private sector participation. Government of Madhya Pradesh plans to open up power generation to the private sector, including for co-generation plants and captive generating units, and envisages new public generating stations in competition with private sector generators. Power distribution may be decentralised into manageable zones that operate as independent profit centers, and would be open for private sector interest through a transparent, competitive bidding process. Although private sector involvement is envisaged, reform of transmission will focus on commercialisation of operations in addition to upgrading and strengthening the existing substation structure.

25. **Telecommunications:** The telecom sector witnessed some fundamental structural and institutional reforms during the first phase of economic liberalisation and deregulation . The reforms pending in the sector are:

- Tariff re-balancing with the objectives of cost based prices, transparency of subsidies and better targeting and help operational efficiency of the operator.
- Opening of Internal telephony
- Convergence of services and single license regime.
- Ensuring full functional freedom to corporatised DOT.

26. **Postal Services:** Postal service continues to be a government monopoly. This is one of the areas which have been left untouched by the wave of liberalisation initiated in the early 1990s. However, there exists ample scope for liberalisation of postal services without affecting the role of the government sector. The important areas requiring attention in the near future are:

- Postal services have to be made self-financing in the long run as subsidisation cannot continue indefinitely. To achieve this, major policy initiatives regarding pricing of postal services including postal stationery and minimizing costs have to be initiated. Eliminating subsidy provided on various services in a time bound manner will have to be an important element of the strategy. This may require more frequent revisions of the postal tariffs. To effect this, the Postal Board needs to be given due autonomy.
- The century old Indian Postal Act, 1898 still regulates the provision of postal services in the country. The Act provides the Department of Posts the monopoly over certain services. No private sector operator is allowed to carry out this work. The Act is ill-suited to meet the requirements of modernisation and liberalisation of the sector and needs to be replaced by a more forward looking Act.
- Except for the courier services, private sector participation is virtually non-existent in the sector. It has adversely affected the pace of expansion and quality of services. The private sector participation will not only provide the financial resources required for rapid expansion of the services but also lead to vast improvements in the efficiency and quality of services due to competition. Some of the areas that could be opened to private sector participation without affecting dominant role of the government are:

a) Opening of new post offices in urban areas through licensed postal agents.

b) Printing of postal stationery.

c) Sale of stationery through licensed agents on franchise or commission basis.

d) Processing of bulk mail.

Social Sectors

27. **Education:** Towards the end of the 20th century, the country made some progress in improving literacy rates. But a great deal still needs to be achieved on this front. Where the target of total literacy has already been achieved, there is a need to improve the quality of school education. Where full literacy is still an elusive goal, efforts need to be redoubled to achieve results. The infrastructure for both primary education and adult literacy programmes need to be strengthened in these regions.

28. In the field of higher education, efforts should be made to recover the full costs of education from the students who can afford to pay. The fees charged in our higher educational institutions need to be increased and the students from the poorer families should be supported by a scheme of scholarships.

29. An innovative scheme that is being implemented in the country is the scheme for providing autonomy to colleges. The kind of large scale reorganisation of the system of under-graduate education is not likely to succeed without providing autonomy to colleges. The programme of restructuring courses, introduction of vocational programmes and examination reforms cannot succeed unless there is provision for teachers to participate effectively in these areas, and the unit of operations is brought to a manageable size. For this purpose, the programme of autonomous colleges will have to be pursued vigorously.

30. The field of technical education and research in the country should in its human resource development programme provide greater incentive to merit by recognising and rewarding young talent and original initiative. The educational system should be broad based and flexible and include provision for multi-point entry. It should encourage creativity and innovation in experimental work by introducing problem/process-oriented laboratory exercises.

31. A concerted effort should be made to raise resources from non-traditional sources such as industries and other commercial concerns, which are making use of highly qualified and trained manpower produced by the institutions of higher education. Such an effort would greatly reduce the present financial burden on the central and state governments. The funds from industries and

other business houses could be tapped by (a) introducing such courses of studies and training programmes that are relevant to the needs of industries for increasing productivity, (b) undertaking consultancy research projects, the findings of which would be conducive to reorienting the industrial sector for increasing its profitability, (c) providing appropriate tax incentives to commercial undertakings for making contributions to recognised institutions of higher and technical education.

32. With the advances in information technology, the emphasis is bound to gradually shift towards continuing, life-long education in a learning society. The educational system would also have to be learner-oriented rather than teacher-centered. Some learning could take place in virtual schools. There would have to be greater emphasis on open learning through the IGNOU and similar other institutions.

33. The costs of books and journals have been rising for various reasons while the proportion of expenditure on maintenance of libraries has been declining. It is being increasingly argued that by networking, particularly in the context of development of library resources, between several libraries, savings can be effected in relation to scarce financial resources, including scarce foreign exchange. The idea of networking of libraries providing shared access to journals and books available in libraries located in the same region needs to be encouraged by providing necessary infrastructure support.

34. **Health:** In the health sector, there needs to be a total commitment to:

- improve access to and enhance quality of primary health care in urban and rural areas through an optimally functioning primary health care system.
- appropriate strengthening of the secondary and tertiary care institutions.
- improve efficiency and build up effective referral linkages between existing primary, secondary and tertiary care institutions.
- development of human resources for health, adequate in quantity, appropriate in quality, with proper programme and people orientation.
- effective implementation of provision of food and drug safety.
- enhance research capabilities and strengthen basic, clinical and health systems research.

35. In the health and family welfare sector policy initiatives are also required in the following areas:

a. Primary health care is an essential basic service and there needs to be a total commitment to make it available free of cost to all based on their needs.

b. Several states are trying to evolve appropriate mechanisms for cost recovery from people above poverty line for diagnostic and therapeutic services in secondary and tertiary care settings. These measures need to be strengthened.

c. In family welfare programmes centrally defined methods and specific targets for contraceptives are to be abolished. Need assessment and fulfillment should become the key element of the revised strategy.

36. **Environment:** The following policy initiatives are desirable in regard to the environment sector:

- Information, dissemination and public awareness on environmental issues is essential for dealing with the mounting environmental problems. Informed citizens can contribute immensely in abatement of polution.
- The present system of subsidies in electricity, fertilizer and water sectors encourages overuse of scarce natural resources and leads to inefficient resource allocation. The problem of nitrification, salaniy and water-logging is essentially on account of under-pricing of these scarce resources. Therefore, subsidy on fertilizer, electricity and water should be phased out. These savings should be channelised for the development of the environment and forest sectors.
- A comprehensive reform of existing laws and regulations which discourages private initiative on private land in areas such as farm forestry, waseland development could be taken up.
- A comprehensive policy reform is required to encourage private initiative in solid waste disposal, farm forestry, afforestation and wasteland development. Leasing out of wastelands to the private sector at least on an experimental basis could be a good beginning in view of the severe resource constraint that has considerably weakened our efforts in realising the national target of 33% forest cover.
- Policy reforms are also called for in evolving well-defined, exclusive, secure, transferable and enforceable property rights on common property resources.
- International issues have been cropping up in the field of environment at an unprecedented rate. This phenomenon is likely to continue in the future. If the national interest is to be reasonably safeguarded, the process of making preparation for international negotiations should be made more prognostic in

nature with a pro-active role being played by India. Many developing countries look forward to stewardship by India. A wider consultation with experts and the stake-holders including the representatives of industry and public should mark the very initial phase of this activity rather than when the issues have become fait accompli.

- National Accounts Statistics must include environment accounting in order that environmental concerns get integrated in our development plans. Effects of economic activities on the wealth of our natural resources must be truly reflected in our national income.

Administration

37. **Legal Reforms:** The reform programme in India will not be complete without a reform of our legal system. Basic reforms required in our legal set up fall under the following categories:

- Despite the existence of thousands of statutes on the statute books, there are areas where legislation does not exist. Examples are credit cards, automatic teller machines, hire purchase and leasing, electronic data interchanges, bio-diversity, plant and seed varieties and other areas of intellectual property.
- There is a need for a law on competition policy. Core elements of a competition policy can be found in the MRTP and Consumer Protection Acts. But these still fall short of a competition policy.
- Old and dysfunctional laws should be done away with or rewritten.
- Multiplicity of laws on the same subject needs to be avoided and the situation in this respect needs to be rationalised.
- Conflicting definitions of the same item under various laws need to be avoided.
- There is a need for simplification of the language and contents of law.
- There is a need for new legislation to carry forward the process of economic reforms.
- All pending economic legislation in Parliament should be expeditiously carried through.
- Too much of unwanted legislation may result in harassment of the public and the business community and ultimately result in more corruption.

38. **Decentralisation:** The main features of the 73rd Constitutional Amendment Act, 1992 include provisions for establishment of mandatory three/two tiers of Panchayati Raj Institutions (PRIs), regular elections to panchayats, a legal status to gram sabhas, reservation of seats for scheduled castes/scheduled tribes and women, setting up of independent state finance commissions for strengthening of finances of local bodies at all levels and constituting of independent state election commissions.

39. Article 243 I of the Constitution provides for the constitution of a State Finance Commission (SFC) to review the financial position of panchayats and to make recommendations regarding principles governing devolution of financial powers to PRIs. These provisions need to be judiciously implemented.

40. The functional autonomy of PRIs along with their financial autonomy must be clearly delineated. Even in respect of the 29 subjects identified in the Eleventh Schedule, it is necessary for the sate governments to clearly identify what would be done by the three tiers of panchayats at their levels. This should be based on the rule that what can be done at the lower level should be done at that level only and not at a higher level. Detailed instructions and guidelines would have to be issued by the concerned departments to their field officers in this regard.

32

41. The state governments are required to constitute District Planning Committees (DPCs) as envisaged under Article 243 (Z) and (D) of 74th Amendment Act to facilitate the process of decentralised planning. DPCs. are to be set up in each district to prepare composite plans covering both urban and rural areas.

42. Principally, the 73rd Amendment has not set down in black and white an imperative for the empowerment of gram sabhas. In order to accelerate the emergence of gram sabhas as bodies to whom the PRIs are accountable, it might be essential to spell out the powers and functions of the gram sabha in great detail-articulating their role as planners, decision makers and auditors.

43. In view of the fact that panchayats will be required to play a much more important role both in terms of planning as well as implementation of development programmes and to avoid the mal-practices and misuse of powers by panchayats, a system of adequate checks and balances will have to be evolved.

44. One of the major strengths of the new dispensation is the greater participation of women and scheduled castes and scheduled tribes in the process of development through reservations in the panchayats. Once again, it may take time for these disenfranchised groups to wrest power from the existing elites. But

evidence suggests that overtime these groups would have a greater role in the decision making process. Clearly there is need to build up the capacity and organisational ability of the panchayat members to enable them to perform their tasks efficiently and in a cost effective manner.

45. NGOs have been involved in the process of development for a long time. Initially, they were largely in the area of welfare but in the last decade they have been playing an active role in building up peoples' awareness and in providing support for development works and programmes. With the emergence of PRIs as institutions of local self-government, problems have arisen between these two institutions at the field level. The NGOs find it difficult to relate to the panchayats, which have a political orientation and are gaining strength in terms of overall supervision of development activities at the district and sub-district level. Yet, it is important that the NGOs and PRIs work in tandem complementing each others efforts.

Administrative Reforms

46. Many problems of government are quite old and well known. Obsession with rules rather than concern for output, promotions based on seniority rather than merit, delays and mediocrity at all levels are some of the factors inhibiting output in government.

47. A high degree of professionalism ought to be the dominant characteristic of a modern bureaucracy. The fatal failing of the Indian bureaucracy has always been its low level of professional competence. The lack of professionalism is reflected in the growing reluctance of senior civil servants to give frank and fearless advice, the inept handling of the major problems that bedevil the nation, inability to innovate and come up with imaginative solutions to the difficult questions that confront us, failure to keep abreast of modern developments and acquire new skills, slipshod approach to the preparation and implementation of projects, lack of cost-consciousness, extreme reluctance to take decisions, and above all the unpardonable neglect of routine administration.

48. Lack of concern for the poor is reflected in the way officers grade their jobs. Although the unofficial gradation of jobs varies from state to state, certain common points can be noted. Posts in the industrial and commercial departments and the corporations occupy a very high rank. These enable the officers to hobnob with industrialists and businessmen with whom he has class affinity. Next in the list would be posts which carry a lot of patronage and influence like a district charge, the departments of home, establishment, finance, etc. The lowest rank goes to jobs where excellent performance would directly benefit the poorest, such as tribal and social welfare, revenue administration, land reforms, urban slums, rural development, etc.

49. Another very important element which is emerging in the country is NGOs . There may be NGOs just making money and doing nothing wonderful, but there are also a large number of good NGOs who are working independent of government and they would after some time be very powerful and the civil services would have to compete with them. In Bangladesh, 80 to 90 percent of all development funds are spent through the NGOs. The coming years will see increasing importance of NGOs in policy making and implementation in India too.

50. A malaise afflicting the civil service generally is the instability of tenures, leading not only to a lack of sense of involvement but also to the inability to contribute effectively to amelioration of the system. In Uttar Pradesh, the average tenure of an IAS officer in the last three years is said to be as low as six months. Frequent transfers and limited tenures are playing havoc with public organisations. With very quick change in the head of the office, down the line the respect for authority gets diluted.

51. Most political manipulations succeed because of the environment of secrecy which pervades government functioning. There is no early check because decisions are taken behind closed doors. The sharing of information and making the entire system more transparent would certainly reduce the danger of the system being hijacked. There is a need to review the Official Secrets Act, and replace it by a Right to Information Act. Rule 9 of the All India Services Conduct Rules which prevents information from being provided to an ordinary citizen should be deleted, and another rule should be added highlighting the intentions of the government in favour of transparency and stating that all such information which is generally provided by the Assembly/Parliament to a Member of Legislature, should also be provided to any member of the public including NGOs.

52. All files except those marked confidential for reasons of the security of state, should be accessible to everyone, especially those who are affected by that decision. At least in some offices, all information (say, relating to house allotment, or getting a new telephone) should be computerised, so that an applicant knows where exactly his paper is pending.

53. Conduct Rules should be amended to allow officers to write articles on current national problems, even if it means criticism of the system, without having to obtain permission from government. To begin with, Associations can be permitted to write freely on public matters,

especially if it leads to minimising corruption, both political and administrative and improving the delivery system.

54. With the changing role of government the size and scale of the civil services no longer relate to the nature of functions that government can or should undertake. One should identify surplus staff, set up an effective redeployment pian, and a liberal system for exit. For the time being recruitment should only take place for functional posts, and vacant posts of secretarial and clerical staff should not be allowed to be filled. Generous golden hand-shakes have to be introduced. It is clear that reducing the size of government, ensuring more goal orientation, and stability of tenure, leading to specialisation is likely to be a time consuming process. But if the process is initiated immediately and in right earnest, the country should be able to progress in the 21st century with a vision of the future.

Some Policy Issues

55. **Expenditure Control:** The Fifth Pay Commission while making recommendation for increase in salaries of government employees had also recommended a reduction in staff strength. The second part of these recommendations still needs to be implemented. To reduce employment in government, it is necessary that posts that become vacant need to be abolished and there should be a freeze on new recruitment. Staff employed in divisions of government having surplus staff should be re-deployed to divisions where there is shortage of staff. Certain divisions in government that have become redundant need to be abolished. For instance it needs to be examined whether there needs to be dilution of government controls in the steel and cement sectors and in the pricing of drugs. It could also be considered whether organizations such as DGSD need to exist or the role of government in agricultural marketing needs to be diluted.

56. There is a need to re-prioritize plan expenditure to eliminate schemes which are of doubtful value. Detailed post-evaluation studies show that many of our plan schemes, though well intentioned, do not achieve their stated objectives, or do so only to a limited degree making the schemes cost-ineffective. This is due to a combination of poor design of schemes and inadequate administrative capability. Unfortunately, such schemes continue to remain in operation, absorbing resources which could be deployed in other areas. A thorough re-examination of all plan schemes, with a drastic elimination of schemes which are demonstrated to be ineffective would release resources which would enable the more important and more cost-effective schemes to be more fully funded.

57. There should be control over wasteful expenditure in all government departments, PSEs, as well as autonomous bodies in terms of travel, entertainment, stationary, machinery and equipment, staff cars, telephone expenses etc. for expenditure control.

58. **Administered Pricing:** The country should try to move out of a regime of administered pricing. Public services should, wherever possible, be priced so as to cover the full costs of providing these services. Cross-subsidisation in the pricing of public services needs to be avoided to the extent possible as this is, today, a major factor contributing to the growth in government subsidies. It has to be remembered that proper pricing of services will, by generating more resources for investment, lead to better availability of these services and also lead to improvements in quality. Policy initiatives taken in this regard in the telecom and petroleum sectors needs to be further strengthened and extended to other sectors as well.

59. **Control over Inflation:** Inflation is a phenomenon which hurts the poor more than the rich. If we are able to contain annual rate of inflation within about 3 per cent, a number of economic problems which we are accustomed to routinely encounter will become less severe. For example, under conditions of comparative price stability, the need for revision of administered prices, increase in procurement price and issue price of food grains, increase in DA for government employees and so on will be felt less frequently.

60. Lower rates of inflation will be conducive to maintaining exchange rate stability and also bring down nominal rates of interest in the economy. Ultimately the most important beneficiaries will be the poor who are the most vulnerable to price rise and also the ones least protected from it. The essential pre-requisite for low rates of inflation in the country is a low level of fiscal deficit which results in a controlled growth rate in money supply.

61. **Interest Rates:** The fiscal correction underway in the country should result in a reduction in both the short-term and long-term interest rates in the economy. If the Indian industry is to become competitive, it is necessary that their costs of borrowing are brought down to internationally competitive levels. As regards credit needs of the small scale and priority sector is concerned, it has to be recognised that the primary requirement of these sectors is to ensure availability of credit - subsidised rate of interest is only a matter of secondary importance. Today while most interest rates have been aligned in their movement with the bank rate, interest rates relating to small savings and provident funds remains outside this bench mark. There is a need to correct this anomaly as well.

62. **Privatisation:** One of the measures adopted to garner resources to reduce the fiscal deficit, in recent years is the disinvestment programme. The disinvestment programme in the case of public sector enterprises should not be seen as a measure of merely augmenting the resources of the central government. Attempts should be made to provide genuine autonomy to the public sector undertakings and to reduce the influence of the administrative ministries in their day-to-day functioning. There is a need for creating a disinvestment fund from out of the proceeds of disinvestment of PSEs for technological upgradation of PSEs in order to make them competitive. In addition attention has to be paid on the training/retraining and redeployment of the employees affected by the privatization of PSEs. There is also a need to create a social security fund for the protection of retrenched employees.

63. The process of disinvestment in the public sector should continue and attempts should be made for genuine privatisation of public sector undertakings. The government should withdraw from sectors where private investment is forthcoming and is likely to be more efficient. The scarce revenue of the government should be utilised to create the right atmosphere for growth and development by investing in the infrastructure and social sectors and in rural development.

64. **Exit Policy:** One aspect of the present trends in industrial development is the possibility of jobless growth. Even though labour is cheap in India, stringent labour laws persuade the Indian industry to economise on employment of labour. Labour laws in India are such that even industrial undertakings which have surplus labour find it difficult to restructure their undertakings by shedding excess fat. Conditions such as these can lead to a situation in Indian industry where production growth is taking place but this does not result in significant employment generation. Thus arises the need to reform labour laws and also introduce an exit policy for labour.

65. It has to be kept in mind that introduction of an exit policy should go side by side with introduction of some kind of unemployment insurance scheme. Appropriate safety nets have to be introduced to ensure that restructuring in Indian industry is least painful to the persons adversely affected and social costs are kept to a minimum. Unit level employers and employees can be asked to contribute an agreed percentage of the wage bill/wages to create a corpus fund for providing unemployment insurance.

66. **Competition Policy:** There is an urgent need for articulating a National Competition Policy (NCP) in India. The NCP should fully reflect the national resolve to accelerate economic growth, improve both the quality of life of the people of the country and the national image and self respect. The NCP should integrate into the economy, those vast multitudes who at present exist at the perephery. The competition policy should aim to bring about a spirit and culture of competition among enterprises and economic entities to maximise economic efficiency and to protect and promote consumers' interest and society's welfare and improve our international competitiveness.

67. **Research and Development:** Another aspect of industrialisation in India that needs to be commented upon is the role of science and technology and research and development. In order that Indian industry remains competitive in world markets, there is a need for greater investment in R and D in the domestic industry. There is no dearth of scientific talent in India. The need is to provide appropriate motivation and incentives to our scientists and technologists to innovate and develop new products which cater to the consumer needs. The scientific laboratories in India should become centers which reward innovation and creativity as against experience and seniority. The scientists and technologists in the country will have to play an important role in making India an industrial super power in the new century.

68. **Globalisation:** Indian industry is today facing the challenge of globalisation. Within the domestic economy native businessmen have to face the competition from the multi-nationals. In addition they also face competition from imported goods. Under the WTO regime this type of competition cannot be avoided. The domestic industry has to improve its competitiveness and efficiency and face up to the challenge of globalisation. We should use the WTO regime to our advantage by tapping overseas markets, technology and raw materials. Indian industry certainly has the wherewithal to face up to the challenge of globalisation. Adopting of the country's agricultural policies to the requirements of the WTO regime will pose a major challenge. Restrictions on imports of various agricultural commodities will have to be removed and these need to be replaced by appropriate tariff barriers within prescribed limits.

69. **Taxing Agriculture:** Powerful arguments have been raised for and against introducing agricultural income tax in India. The absence of this tax results in inequity in the income tax scheme as a whole. Within the rural sector, the non-introduction of this tax favours the rich agriculturists against the poor. But revenue realisation from an agricultural income tax may be inelastic considering the lower rate of growth of the sector as compared to other sectors of the economy. Further with the rapid rate

of growth of population and the consequent fragmentation of land holdings, the economic surplus originating in this sector is not likely to expand fast resulting in low buoyancy of the agricultural income tax. Today, several inputs such as water, electricity and fertilizers are being provided to the farmers at highly subsidised rates. The subsidy on these accounts largely accrue to the rich farmers as compared to the low and marginal ones. Given this, it may be more feasible, in the beginning, to mobilise more resources from the farm sector through gradual reduction in subsidies, and proceed to introduce a full fledged agricultural income tax at an appropriate time in the future.

70. **Public Distribution System:** As regards the public distribution system, the objective of targeting the system towards the genuine poor should be more vigorously pursued. Ultimately food subsidy should be restricted to cover only the population below the poverty line. For the people above the poverty line who have the purchasing power to buy food, the requirement is only to ensure availability of food grains at a stable price in the market. There is no need to extend food subsidy to this population. To make the programme of targeting the PDS more effective, the practice of using the ration card as an identification card by the administration for various purposes needs to be given up. The role should be assigned to voter identity cards in the future. Many people get ration cards issued only to establish their identity before the administration. There are also several plan schemes in operation which are in the nature of welfare or income transfer schemes where distribution of foodgrains is involved. Such schemes could be merged and some sort of covergence among these schemes all serving the same purpose could be evolved.

71. Items other than rice and wheat need to be excluded from the purview of the PDS. Sugar supplied through PDS is a factor which draws many well to do families to fair price shops. Thus excluding sugar from the PDS will be a self- targeting proposition. Kerosene oil is also a commodity supplied through PDS and intended for the poor. But this is an item where there occurs large scale illicit diversion where the benefits meant for the poor are cornered by miscreants. Subsidy on kerosene should be gradually phased out and alternate avenues for marketing need to be explored for this commodity. While subsidy is restricted only to rice and wheat under PDS there is a need to retain the viability of fair price shops. To ensure viability of fair price shops, it may be desirable that the fair price shops be permitted to sell commodities other than rice and wheat within their premises at full market prices.

Box-3

Food Subsidy in Tamil Nadu

The Tamil Nadu Civil Supplies Corporation (founded in 1972 and converted into a public limited company three years later) is vested with the following functions: (1) acting as a wholesale agent of the government to procure and distribute all commodities – rice, wheat, sugar and edible oil – with the exception of kerosene; (2) running retail outlets; (3) taking delivery of central pool allocation of rationed items from time to time; (4) supplying commodities to the various welfare schemes such as nutritious noon meal scheme in schools, Sri Lankan refugees, foodgrains for SC, ST, BC, MBC hostels; and (5) making open market purchases. The public distribution system (PDS) is a mammoth operation because it has under its control 24,905 fair price shops.

The subsidy provided to the Tamil Nadu Civil Supplies Corporation has increased from Rs 181 crore in 1980-81 to Rs 1000 crore in 1997-98. The reason for this phenomenal rise is the increase in the difference between the cost of procuring rice and the price at which it is sold. From hardly Rs 0.40 per kilo in 1979-80, this difference has reached Rs 6.35 in 1996-97.

Box-4

World Bank on Poverty Reduction in India

A World Bank Report on reducing poverty in India notes that India has reduced the percentage of population living in poverty since 1970s, but progress has been uneven overtime and across states. There is some stagnation in this regard at present. The report says that accelerated, labour intensive development in the states is needed to reduce poverty, particularly in the poorest four states (Bihar, Uttar Pradesh, Orissa and Madhya Pradesh). These states constitute almost 40% of the population and have been a heavy drag on the efforts to reduce poverty and on national economic and social development. Speeding up India's development will depend heavily on better performance in these states.

Accelerated development in the states will depend on more public and private investment to speed growth, improve efficiency in the use of investment, and improve human development. In general terms, efforts will be needed to improve governance and institutions, for example, strengthening transparency, increasing accountability in service delivery, reducing opportunities for discretion, and improving expenditure management and tax administration. Physical and social infrastructure need improvements, which will entail supporting reforms in state finances, power and irrigation, and the regulatory framework in general. Such reforms and development spending will create an investment friendly environment to attract private capital that is needed for growth according to the World Bank.

Summary

72. While in 1991 a severe balance of payments crisis had led to a series of economic reform initiatives, today, almost a decade later, a domestic financial crisis affecting the central and state governments is again leading the way towards a programme of second generation reforms. This time the reforms have to embrace all sectors of the economy and cover the central and state governments.

73. In the financial sector, there is a need to bring down the fiscal deficit and also the rate of inflation and interest rates. The fiscal deficit has to be brought down both by augmenting revenues and also by curtailing government expenditure through measures like reducing subsidies and downsizing of bureaucracy. The financial crisis affecting the state governments is more severe than that affecting the center. But the basic reforms that are required are similar in both cases - resource mobilization efforts and austerity.

74. In the infrastructure sector, there is a need to attract more private capital while maintaining the momentum of public expenditure. Private initiative will not be forthcoming until the services are a ppropriately priced to cover the full cost of operations. In the meantime, there is a need to set up regulatory mechanisms which will oversee measures such as pricing of services and other issues. Reform measures in the infrastructure sector would include dismantling of administered pricing mechanisms and avoiding the practices of cross-subsidisation wherever possible

75. The industrial sector in India will have to adopt itself to the challenges posed by the WTO regime. A competition policy will have to be introduced. Reforms in labour policy is also necessary. Industrial policy will have to promote private initiatives from domestic as well as foreign investors while the role of the public sector will diminish.

76. The public distribution system will have to be made more focused through better targeting. It may be advisable to restrict the coverage of PDS to rice and wheat only. The emphasis under PDS should shift from provision of food subsidy to stabilization of food prices.

77. The social sector will also see new initiatives from the side of private capital. In education the target should include achievement of full literacy and improvements in the quality of higher and technical education. In the health sector, while the access of the poor to public health facilities needs to be improved full costs should be recovered from those who can afford to pay. Environment accounting should become an integral part of the plan process. In this regard, the focus on the international dimension should not be lost.

78. Decentralisation and globalisation are among the processes that will shape the new century. Initiatives by the local bodies, NGOs and women need to be encouraged. The process of institution building should be backed up by administrative and legal reforms without which the second generation of reforms will be incomplete.