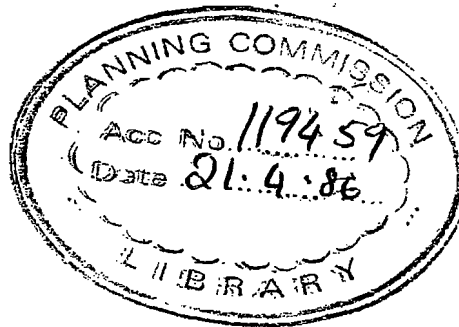




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TASK FORCES ON HOUSING AND URBAN DEVELOPMENT



PLANNING OF URBAN DEVELOPMENT

PLANNING COMMISSION
GOVERNMENT OF INDIA
NEW DELHI

SEPTEMBER 1983

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CONTENTS

	Page
SUMMARY OF FINDINGS AND RECOMMENDATIONS	(vii)
Preface	(xxx)
A—THE PLANNING OF URBAN DEVELOPMENT	
I. URBAN DEVELOPMENT IN INDIA: REASONS AND OBJECTIVES	
The Longer Term	1
The Shorter Term	4
II. URBANIZATION IN INDIA : THE RECORD	
Introduction	6
The Record since 1901	8
The Size Distribution of Town and Cities	12
The Regional Pattern of Urban Growth and Economic Development	19
The Urban Rural Distribution of Income and Employment	26
Appendix A 2.1	32
Appendix A2.2	34
Appendix Tables A 2.1 to A 2.6	38
III. URBANISATION IN THE YEAR 2001	
Introduction	44
Population Projections	44
The Disaggregation of Urban Population Projections	49
The Growth of Employment and Labour Force	56
The Growth of Urban Income	60
Appendix Tables A 3.3 to A 3.7	64
IV. MECHANISMS FOR THE PLANNING OF URBAN DEVELOPMENT	
Themes in Indian Urban Policy	68
Urban Development Planning : Suggestions for a New Approach	76
Recommendations for Institutional Changes	83

	Page
V. PLANNING FOR METROPOLITAN AREAS	
Problems in the Existing Approaches to Metropolitan Planning	93
Towards Better Approaches to Metropolitan Development Planning	96
Suggested Procedures for Realistic Metropolitan Planning	98
VI. COORDINATION OF INDUSTRIAL AND URBAN DEVELOPEMT	
Introduction	102
Local Level Links	103
Higher Level Links	109
VII. THE URBANISATION OF NEW AREAS	
Introduction	113
The Pattern of Urbanisation by Sub-Regions	113
Regional Urban Growth	118
Appendix Tables A 7.1 to A 7. 3	120
B—URBAN LAND POLICY	
VIII. URBAN LAND POLICY IN INDIA: A REVIEW AND CRITIQUE	
Background : Principles of Urban Land Policy	128
Existing Approaches to Land Policy	132
What has gone wrong ?	135
The Need for a New Approach	141
IX. URBAN LAND POLICY: SOME NEW DIRECTIONS	
Introduction	143
A Review of Legislation Affecting Urban Land	143
Assembly and Development of Urban Land: What can be done?	146
Urban Renewal and Redensification	149
X. INNOVATIVE METHODS OF LAND ASSEMBLY AND DEVELOPMENT : LAND READJUSTMENT AND TOWN PLANNING SCHEMES	
Introduction	152
The Land Readjustment System	152
Town Planning Schemes	154
Land Readjustment and Town Planning Schemes Compared	156

	age
A Practicable Scheme of Land Readjustment in India . . .	158
Recommendations	162
XI. DEVELOPING A LAND PRICE MONITORING SYSTEM	
The Need	163
Japan's Land Price Publication System	163
Monitoring of Urban Land Prices in the United States . . .	165
A Proposal for a Land Price System for India	166
TECHNICAL APPENDICES	
Technical Appendix-I	168
Technical Appendix-II	174

LIST OF TABLES

No.	Title	Page
2.1	Growth of Urban Population in India	10
2.2	Distribution and Growth of Urban Population by Size Classes in India	13
2.3	Annual growth rate of urban population by size of town	14
2.4	Pattern of growth of Class I Cities (1961-81)	16
2.5	Frequency distribution of annual growth rates of towns and cities between 1971 and 1981	17
2.6	The growth of large cities and their hinterland	18
2.7	Statewise growth of urban population (1951-81)	19
2.8	Urban growth in states during (1951-81) A Summary	22
2.9	Per Capita state domestic product	23
2.10	Statewise Manufacturing and Agricultural Productivity (1961-81)	24
2.11	Trend of Urban/Rural Shares	28
2.12	Movement of Sectoral Shares (1950-51 to 1980-81)	29
2.13	Rural share in net domestic product (1970-71 to 1980-81)	29
A2.1	Urban population of states in India (1951-81)	38
A2.2	Rural population of states in India (1951-81)	39
A2.3	Level of urbanisation in states 1951-81	40
A2.4	Statewise growth of urban population excluding new towns added in 1981 (1971-81)	41
A2.5	Statewise growth of Rural population in India	42
A2.6	Urban Rural Growth Differential (URGD) by states	43
3.1	Total population projections (1981-2001)	44
3.2	Projection of urbanisation to the year 2001	46
3.3	Projected level of urbanisation (1981-2001)	48
3.4	Distribution of urban population over various size classes (1971-2001)	50

No.	Title	Page
3.5(a)	Projected population of existing metro cities for 1991	51
3.5(b)	Cities expected to become metropolitan cities by 1991	52
3.6	Expected number of cities/towns in various class sizes in 1991	54
3.7	The regional distribution of projected urban population by 1981-91	54
3.8	The regional distribution of urban population by class size (1981-91)	56
3.9	Growth in workforce and labourforce (1981-91)	57
3.10	Sectoral distribution of employment (1977-78)	58
3.11(a)	Sectoral Change in the employment (1981-2001)	59
3.11(b)	Inter Sectoral distribution of employment 1981-2001	59
3.12	Changing structure of the Indian economy	61
3.13	Gross output in urban areas by sectors 1994-95	62
3.14	Projected Urban and rural per capita incomes	62
A3.1	Projection of urbanisation to the year 2001	63
A3.2	Growth in workforce and labourforce 1981-2001	63
A3.3	Sectoral distribution of labourforce 1981-2001	64
A3.4	Distribution of labourforce by sectors	65
A3.5	Estimated GDP at factor cost by sectors	66
A3.6	Value added per worker in rural urban areas (1970-71)	66
A3.7	Statewise share of agricultural labourforce 1977-78	67
6.1	Growth of population in selected industrial towns	111
7.1	The pattern of urbanisation regionally disaggregate in states	114
A7.1	Urban and rural population of sub regions in states	120
A.7.2	Level of urbanisation regionally disaggregate in states	123
10.1	Information of five town planning schemes from Maharashtra	156
10.2	A sample land readjustment scheme	159
10.3	Pricing of sample land readjustment scheme	161

SUMMARY OF FINDINGS AND RECOMMENDATIONS

A. Issues in the Planning of Urban Development

I. Reasons and Objectives

1. The results of the 1981 census indicate that the urban population of India is now about 160 million. Although this number implies that the urban population is still less than a quarter of the total population in the country, the absolute magnitude is so large that it warrants a close new look at the existing policies concerned with housing and urban development. Indeed, since the level of urbanisation is still less than a quarter it is important to realise that the volume of people living in cities will continue to increase in the foreseeable future : hence policies have to be so designed that the continuing needs of urbanisation are met. Because of the massive problems that exist in agriculture and in rural areas in general, there has been a tendency to neglect the issues of urbanization. While it is clear that agriculture and rural development will, and should, continue to command priority attention in planning, the size of the urban problem is now such that it can no longer be left to *ad hoc* responses.

2. The key fact that must be faced is that urbanisation is going to continue apace and even accelerate in India in the foreseeable future. It is going to place heavier demands on government for the provision of a host of necessary urban public services. The administrative and fiscal problems that arise from such demands will not be solved by wishing that cities would grow less quickly though, no doubt, some methods of curtailing city growth might succeed temporarily. It is, therefore, none too soon that a systematic review of urbanisation policy be taken now.

3. It must be understood that urbanisation is a phenomenon which is part and parcel of economic development in general. It is a natural consequence of economic changes that take place as a country develops. Certain activities are better performed in, indeed require, agglomerations of people while others do not. The location of activities has therefore to be seen in the spatial context of activities among others existing in a country and both likely and desirably development of network of markets and production centres of goods, services and employment.

4. It would be idle to imagine that the rapid rise in rural population through demographic growth can be absorbed in agriculture as far as 2000 A.D. and still ensure growth in productivity and total production. Twenty years ago, roughly 55 percent of Gross Domestic Product was being created by and supporting the 70 percent of the labour force in agriculture. Today a similar 70 percent is creating only 35 to 40 percent as the contribution of agriculture to G.D.P. The recent spurt in India's urbanisation is an inevitable reflection of these structural movements in the economy and can therefore be

expected to continue in a similar direction and speed. In the interest of keeping urban/rural and income disparities to a minimum, policy towards urbanisation should be positive, encouraging the sharing of urban income among a larger proportion of people. This thrust should consist of a rapid expansion of non-agricultural livelihoods and employment assisted by the promotion of education and technological skills at urban and semi-urban nodes.

II. *Urbanisation in India : The Record*

5. It should be clear that India is not faced with an "urban explosion" as compared with trends in the rest of the world. In 30 years, its level of urbanisation has increased from about 17 percent in 1951 to only about 23.7 percent in 1981. This, however, is no ground for complacency. In absolute terms, India's urban population increased by about 50 million people over the last decade. This increase itself is larger than the total urban population in all countries in the world except China, the Soviet Union, the United States, Japan and Brazil. Indeed, it is likely that India's urban population will be greater than that in all countries except China by 1985.

6. Although total urban population increased six-fold between 1901 and 1981, from about 26 million to about 160 million, the number of settlements increased by only about 80 percent to 3245. Thus most of the growth was because of the enlargement of existing towns at every level and not merely because of the addition of new towns. The majority of settlements now classified as towns have exhibited urban characteristics for a very long time. There is some evidence that the number of settlements regarded as towns was not very different as early as the sixteenth century. The spatial distribution and number of settlements therefore reflects a long and stable history. At the margin, however, there is considerable movement of settlements between urban and rural categories between censuses. This stable, rather static situation has resulted in vast areas of the country still continuing to be devoid of urban settlements of any size leading to extremely low levels of urbanisation of 5—10 percent in these regions. A larger number of new towns should be encouraged to appear in these areas so that income and population growth can take place.

7. It is generally believed that (i) large cities have grown faster than and at the expense of small and medium towns; (ii) that this is undesirable and (iii) measures should be taken to retard large city growth and that this can be done by placing greater investments in small and medium towns. First, it is not true that large cities have grown much faster, on an average, than small and medium towns. Second, the arithmetic of the growth and distribution of settlements is such that higher growth of small and medium towns will have little effect in magnitude on the growth of large cities. Third, fast growing small and medium towns soon become large cities. It must be understood that the growth of towns and cities has little to do with their size : explanations for differential growth rates are more likely to be found in their own particular economic characteristics and that of their regions.

8. This, however, is not the whole picture, since these average growth rates can be somewhat misleading. A higher proportion of larger cities is found to have higher growth rates than small ones and there is a tendency for a larger proportion of small towns to be slow growing. The variance in growth rates is

much higher at the low end of the settlement scale. However, the slow growing towns have been found to be concentrated in particular regions of the country which have varied from decade to decade. It is therefore important that this phenomenon be investigated carefully.

9. There is considerable variation between states in their experience of urbanisation and economic development and this does not seem readily explicable at first sight. There has been a perceptible increase in interstate inequality as measured by per capita state domestic product. This has been caused largely by the relative sluggishness in agricultural productivity in the whole Eastern, Central Eastern and South Eastern region. There have been notable increases in factory production in all states and particularly so, in relative terms, in the hitherto backward states. The combination of increased manufacturing production and agricultural stagnation in parts of the poorer states is likely to have caused the significant acceleration in urbanisation in the last decade. The richer agriculturally advanced area of Punjab, Haryana and Western Uttar Pradesh have also shown an acceleration in urbanisation in the last decade, after slow urban growth in the 1961—1971 decade. The indications, therefore, are that after initial labour absorption which occurs with green revolution type changes in agriculture, as income increases subsequently and further productivity changes occur, the rate of urbanisation is expected to accelerate. Hence, the evidence, particularly from the last decade, suggests that both agricultural growth and relative lack of it are likely to contribute towards further urbanisation in the foreseeable future.

III. *Urbanisation in the Year 2001*

10. It is expected that the total population of India will be in the range 850 to 860 million by 1991 and 990 to 1020 million by the year 2001. For all practical purposes we may regard 1000 *milliom* as the approximate expected population by the end of the century.

11. The level of urbanisation is expected to be between 27 and 28 percent in 1991 and between 31 and 32 percent in 2001. This implies an absolute increase in urban population of about 70 million in the current decade to about 235 million in 1991 and a further 80 to 85 million increase to about 315 to 320 million by the year 2001. The absolute increments in population in the second decade will therefore be about equal in rural and urban areas.

12. The number of cities with 1 million population and above is likely to increase to about 20 to 22 with a total population of 65—70 million by 1991 if there is some slow down in their current rates of growth. If current rates of growth continue, their total population is likely to be between 70 to 75 million in 1991. Correspondingly, the other Class I cities with population between 100,000 and 1 million are likely to increase in number from just over 200 in 1981 to over 300 in 1991, with a total population of about 85 million. This implies that the share of Class I cities in total urban population will increase from about 60 percent in 1981 to 65 percent in 1991, while the share of metropolitan cities alone will increase marginally from 27 to 28 percent.

13. The population in towns expected to be in the Class II and Class III Categories (in the population range 20,000 to 100,000) can also be predicted with some confidence since almost all these towns exist already. This is likely to be in the range of 55 to 65 million (about 23 to 27 per cent of total urban population) depending on the emerging pattern of urbanisation. The population of the remaining towns of under 20,000 population is difficult to predict since many of these towns will be those newly classified as such. If past trends continue, their total population is likely to be about 25-30 million (about 10 to 13 per cent of total urban population). These ranges are indicative of the effect of urban policies on urban population distribution.

14. The implications of this rate of change in urban population are very striking for the rise in urban labour force. It is expected that while the absolute increase in rural labour force in the next three or four quinquennia will remain stable at about 22 million in each quinquennium, the net additions to urban labour force will keep increasing from about 13-14 million in 1981-86 to 19-20 million in 1996-2000. Thus, the net additions to rural and urban labour force will be almost comparable towards the end of the period. This reflects the rising weight of urban population increases in the total towards the end of the period, despite the relatively lower urban labour force participation rates. During the Seventh Plan itself over 3 million urban jobs will have to be created annually. This calls for special attention to the problems of urban employment in the next 15 years, relative to the past.

15. The intersectoral changes in the distribution of labour force consistent with these projections imply a change in the share of agricultural population (including forestry and fisheries) from about 69.5 per cent in 1981 to 66.9 per cent in 1991 and 64.5 per cent in 2001. The share of mining and manufacturing during the same periods is expected to increase from about 11 per cent to about 11.7 and 12.5 per cent.

IV. *Mechanisms for the Planning of Urban Development*

16. Planning for urban development should essentially be supportive of economic development in the country, state or sub-region, be it in agriculture, extractive industries, manufacturing industry or in the tertiary sector. The provision of services and infrastructure removes constraints to the growth of these sectors or in some cases, promotes it. However, the provision of urban services such as transport, communication, water, sanitation, etc. and shelter alone is usually unlikely to stimulate large scale urban development. It is important to time investments in urban services and shelter to coincide with investments in agriculture and industry, mining and commerce which provide permanent sources of employment so that these types of investments can be fully productive. This should be the key objective of urban development planning.

Modes of Urban Planning

17. There has been very little by way of explicit urban policy at the national level. The approaches that have been followed can, at best, be described as piecemeal and desultory. Even schemes which were called "Integrated", e.g. "Integrated Urban Development Programme" (IUDP) and "Integrated Development of Small and Medium Towns" (IDSMT), were focussed on towns of different sizes : cities over 3 lakhs population in the case of I.U.D.P. and towns under 1 lakh population in the case of IDSMT. The selection of

towns was then quite erratic and little attempt has been made at planning of urban development as a whole. As mentioned, another major scheme was the preparation of Master Plans for a large number of cities but these were largely infructuous because of the lack of connection in the preparation of these physical plans with investment planning at the city, state and national levels. The other main interventions have been the metropolitan city and State capital projects and the various slum clearance and improvement schemes. In these cases, investments were made in response to major service deficits which could no longer be ignored or, in the case of the new State capitals, investments were made relatively lavishly in the provision of a very high level of infrastructure. Other lavish investments have been made in the establishment of new townships for large public sector enterprises such as the steel plants and heavy electrical plants.

18. The planning of urban development should be done at a regional or sub-regional level, though this has to be distinguished from regional planning as a whole. Regional urban systems can be identified according to their economic, climatic, geographical and transportation characteristics. Planning for urban development can thereafter be done on the basis of such regions according to the relative need and function of each town in its regional context. Thus, within each planning zone there would be no allocation to towns because of their size but more because of their function and need with particular emphasis on their respective industrial and employment potential. The physical and investment plans can then be dovetailed at the regional level and then fed into the State level plans which are, in turn, coordinated with the national plans. Recognition should be made of the metropolitan cities with regional, national & international functions, since these cities are not wedded to their regions for their existence and perform national level functions.

19. Within towns and cities there is a much greater need for community participation as well as the exercise of private initiative and investment in urban development than exists at present. The delivery of the basic public services to everyone is not feasible without such an approach. At present there is little interaction between the citizen and city government, and sometimes even the state government. What is needed is community level institution building such that the needs of the community can be expressed in an organised manner as well as services provided in this fashion.

20. In order to accomplish this change in approach a number of institutional modifications have to be made to strengthen the procedures of urban development planning at the national, state and local levels. The key to the new approach is two-fold. First is the dialogue between physical and investment planning and second is the preparation of regional and sub-regional urban development plans to make the first possible. What is envisaged is that overall costing and allocation of resources to urban development should be done at the national level between the Planning Commission and the Ministry of Works and Housing acting as the nodal Ministry, and other concerned ministries. Unlike the present *ad hoc* system of schemes, states should be asked to prepare comprehensive state and regional urban development plans to qualify for urban investment allocation, given the overall cost standards. The latter should take account of different kinds of inter-regional variation.

Recommendations for Institutional Changes(a) *National Level*(i) *Planning Commission**Perspective Planning : Need for Integration of Urban Projects*

21. At present there is no mechanism in the plan process to work out spatial (regional as well as urban/rural) implications of the sectoral pattern of investment that is envisaged in each five year plan. Before industrialisation the interlinkages between different parts of the economy were weak enough to be ignored in formal economic modelling. As the economy develops denser inter-sectoral as well as spatial linkages it becomes necessary to do this more systematically. There should therefore be a more conscious effort to integrate urban projections with economic modelling exercise. Such a procedure would also have important feed-back effects in working out the infrastructure and housing implications of the planned sectoral activities alongwith the implied demands for building materials.

Urban Impact of Projects

22. A great number of industrial and other investment decisions have a major bearing on urban development. It is therefore suggested that just as projects over Rs. 10 crores are subject to project evaluation by the Project Appraisal Division, large projects generating direct employment of over 1000 persons or over Rs. 50 crores should also be required to file "Spatial Impact" or "Urban Impact" statements. These statements would detail the implied direct and indirect costs of urban infrastructure made necessary by these investments. These impact statements should include the most obvious implications of each project on employment (direct and indirect), basic services necessary for the implied employment social amenities for the new settlements, communications networks, housing, water supply, etc.

Housing and Urban Development Division.

23. If the suggestions made above are accepted it would also be necessary to upgrade the Housing and Urban Development Division technically to be able to use the information provided by the perspective plan projections and the "Urban Impact" statements for conversion to specific urban development programmes, projects and schemes. At present, the Housing and Urban Development Division is one of the smallest in the Commission. With increasing urbanisation and the need for more systematic planning it is suggested that the Division be strengthened technically with a whole-time technical Adviser made exclusively responsible for these activities. As at present, "Water Supply" should be included with this portfolio, since a considerable portion of urban infrastructure investment is due to water supply provision. Already 6-7% of Plan investment is covered by these sectors and this can be expected to increase in the future to about 10%.

(ii) *The Ministry of Works and Housing*

24. The responsibility for more detailed urban planning and development should rest with the Ministry of Works and Housing. This would become clearer

if the Ministry is redesignated as the Ministry for Human Settlements as has already been proposed. However, this new role would have to be properly defined and the Ministry would have to be strengthened if it has to play an effective role in overseeing urban planning and development at the national level. It should be the nodal organisation for coordinating action in the matter of major investment decision having key spatial implications. The Ministry would be responsible for working out the detailed urban investment implications of projected urbanisation at least the state level. This implies technical strengthening of the Ministry as well as of other technical organisations on whose expertise it can draw.

25. The *Town and Country Planning Organisation* should be re-oriented and enlarged as a strong technical arm of the Ministry. Its functions should be so extended that it can develop capability in and be responsible for (i) investment planning for urban development (ii) appraisal of urban projects (iii) setting and monitoring of standards in urban projects (iv) evaluation of urban projects (v) constant search and review of innovative urban programmes (vi) organisation of an urban information system (vii) training needs in urban development planning and (viii) stimulating research on urban development in-house as well as in other institutions. In order to do this its interdisciplinary character should be strengthened and it could be redesignated as the "Human Settlements Planning Organisation" or equivalent. It would need even representation of economists, financial analysts, and town planners, along with support from demographers, geographers and statisticians. It could continue some of its consultancy activities in physical planning.

Centrally Sponsored Scheme on Urban Development Planning

26. A re-orientation of urban development planning will not take place by mere re-naming of institutions. It is therefore necessary to launch a *Central Sponsored Scheme for funding the development of new urban development planning capability such that the integration of physical, investment and financial planning as envisaged can take place*. The scheme would cover training and institutional needs arising from this re-orientation at both the central and state levels.

Urban Research

27. There is great need for both basic as well as applied research on all issues connected with urbanisation. It is therefore necessary that urban research be strengthened and institutions carrying out such research supported in a systematic manner. There is a wide variety of institutions conducting urban research: Schools of planning, economics research institutes, institutes of management, the institutes of technology and universities. It is noted that the Ministry of Works and Housing has designated the National Institute of Urban Affairs as the nodal institution responsible for urban research. Its role as a clearing house of urban search and collection of data can be strengthened and systematised. At the same time, care should be taken to encourage the existing institutions conducting research in various aspects of migration and urbanisation to improve the quality of their work and their capability for undertaking different facets of planning for urban development. It is recommended that the new Ministry of Human Settlements should work out procedures for the systematic strengthening of urban research in selected institutions around the country.

(b) *The State Level**Coordination of Urban Development*

28. An arrangement similar to the one suggested above for the centre may be suggested at the state level as well. It is important that machinery be established for the coordination of functions connected with urban development. This can, for example, be done by consolidating the various fragmented responsibilities for urban development under one Department of Human Settlements. This has been attempted in one state where there is one Secretary for Housing, Local Self Government and Environment. The Department of Housing has under it a Housing Board, the Department of Environment is responsible for the Town and Country Planning Department, Development Authorities, Pollution Control Board, and the State Slum Clearance Board; the Department of Local Bodies is responsible for all the municipal corporations, municipalities and notified area committees. Even the happy event of one Secretary overseeing all the departments may not be able to achieve the vital interaction between them so necessary to eliminate wasteful expenditure and enterprise. The important thing is to ensure appropriate interaction so that the left hand knows what the right hand has done and to be able to even stay it, if necessary.

29. As suggested for the T. C. P. O. at the Central Level the Town and Country Planning Departments (T. C. P. Ds) should be strengthened technically to perform the following functions:

- (i) The preparation of the Five Year Urban Development Plan and Annual Plans for the State. This would mainly include the State-wide investment allocations for different components of urban infrastructure.
- (ii) The preparation of Regional Urban Development Plans for regions in the State.
- (iii) The preparation of physical land use and other plans for smaller towns which do not have their own capability.
- (iv) Advising on physical plans, site and lay out plans prepared by development authorities and local bodies.
- (v) Monitoring and evaluation of urban development projects.
- (vi) The construction of a data base for each town or city, including demographic, social, economic topographic and land use data.
- (vii) Enforcement of standards, urban regulations, etc.

30. *A Centrally Sponsored Scheme* for funding the development of urban development planning capability has already been recommended in para 26. This must be extended to the state level systematically just as the preparation of the original Master Plan was funded under a Centrally Sponsored Scheme. This could be on a pilot basis in about 6-7 states which are facing more serious urban problems.

(c) *The Local Level*

31. At the local level, the recommendations for metropolitan planning are given separately below. The accompanying Task Force on "Management of Urban Development" is also giving specific recommendations for planning at the local level. There is consensus that municipal bodies should be strengthened for the planning needs of each town. Once the regional dimensions are spelt out by the State Level planning body, the responsibility as well as authority for planning at the local level should rest with the local body. It will be possible for the local bodies in many of the larger cities to develop their own planning capability in terms of qualified staff. Now that there are 216 Class I cities already and that this number is expected to increase to over 300 by 1991, a large proportion of the urban population will be covered by these local bodies. It will, however, be difficult for most of the local authorities in the small and medium towns to afford their own planning staff. It is recommended that the newly revamped and strengthened State Level T.C.P.Ds develop special wings which would act as technical consultants for the local planning and organisational needs of the smaller towns.

32. Some observations are called for for planning at the intra-city or zonal level. Much of city level planning has been of the top-down variety and has often borne little relationship with the needs of people at the neighbourhood level. This has been particularly true for the needs of slum dwellers, who have little say in the pattern of delivery of services to them. The Task Forces on "Shelter for the Urban Poor and Slum Improvement" and on "Management of Urban Development" are commending the widespread adoption of the Urban Community Development Programme as a means of delivering services to the poor and of eliciting their participation in planning at the sub-local level. Details of such an approach are provided in the reports of these Task Forces. It is recommended that the principles of the urban community development programme be adopted widely as a means of increasing citizen participation in urban planning at the sub-local level.

Training Needs

33. The re-orientation of urban development planning from a largely physical approach to a coordinated physical, economic and financial approach implies an expansion in and change of training facilities for urban planning. Two kinds of needs may be distinguished :

(i) *Training of New Planners*

Existing town planning courses in the planning schools should be made broader; management training for urban development planning should be introduced at the Indian Institute of Management and at the L.B. Shastri Academy for Administration; serious consideration should be given to the introduction of urban economics at leading economics departments in selected universities at the M.A. Level. These measures would help in producing a wider variety of urban planners with appropriate technical and managerial background.

(ii) *Mid Career Training*

There should be a network of institutions to undertake training of personnel in existing institutions in:

- a. techniques in urban planning integrating economic and physical approaches;
- b. transportation planning;
- c. land management and land pricing ;
- d. municipal organisation, administration and management;
- e. municipal finances and taxation ;
- f. urban project preparation, monitoring and management.

It is therefore recommended that the Ministry of Works and Housing, in conjunction with the Ministry of Education and the Department of Personnel devise a specific plan for the expansion of training for urban development planning on the above lines during the Seventh Plan, along with an allocation of specific funds for this purpose.

Information System for Urban Development Planning

34. Urban development planning within the framework of overall development planning in India would necessitate the setting up of an Urban Information System (URBIS). The system, may start its work by compiling systematically the data available with the central level data collection/compilation agencies like the Census, Central Statistical Organisation (CSO) etc. There are serious problems of intertemporal as well as inter-state comparability with regard to a segment of this information base. The data on workforce, its distribution among various industrial categories (at the two digital level of NIC classification) the distribution of industrial establishments among these categories, may be mentioned as illustrations. URBIS would have to retabulate the data on the basis of highly disaggregated information and by using comparable definitions of various concepts at different points of time. One other task of URBIS would be to procure from various Central and State government departments and local authorities data that are collected for various administrative purposes but never published nor used in the planning process. These data should be systematised and published.

V. Planning for Metropolitan Areas

35. Planning in metropolitan areas as is currently practised largely consists of land-use planning as an aid to development control. This approach has suffered from two key problems. First, there is no connection between the investment implications of a Master Plan and resource availability. Second, the land use allocation exercise and the standards used do not deal adequately with the prevailing socio-economic conditions in the city: where people live, what they do and where they work. The net result of these problems is that Master Plans often retain pretty pictures on paper and are seldom capable of being implemented effectively. All these shortcomings are not merely the result of the methodology of planning followed.

they also result from the existing institutional set up for urban planning and resource allocation and the social class and sympathies from which the bulk of the technical personnel are drawn, which is not conducive to an integration of physical and investment planning. It would therefore be desirable that metropolitan planning in the future is re-oriented to take account of such key shortcomings.

36. The 12 existing metropolitan cities are conveniently located in a mosaic of geographical regions in the country. The addition of 8 or 9 more cities into this group by 1991 will further improve their geographical distribution so that each region will then be served by a large city. It is therefore important that detailed geographic and economic analysis of these metropolitan regions be initiated on the following lines:

- (a) Integration of communication, transport, energy and other infrastructure in the region to bring about better interdependence in the hierarchical structure of the different areas of the region.
- (b) assessment of the types of industries and other activities that are more suitable for location in metropolitan areas. The present policy of banning the location or expansion of industry in cities with population exceeding 5 lakhs can then be modified on this basis.
- (c) assessment of the type of industries and institutions that should be assisted to take root in smaller cities and towns of the region, that would inter-lock with each other and the rural hinterland and make optimum use of locally available resources.
- (d) above all, the employment that is likely to grow with the planning and implementation of (c) and the provision of housing and shelter as close as possible to their respective places of work of the populations that will man these industries or establishments in the formal and informal sectors.

This should preferably be done under the auspices of the Planning Commission which may seek the collaboration of bodies like the ICSSR, IITs, IIMs, Universities, research institutes and other special foundations interested in this issue.

Coordination of State and Metropolitan Planning

37. A more organised dialogue needs to be established between metropolitan authorities and State Governments. In order to make this possible, the State Plans should include a *Metropolitan Sub-Plan* for metropolitan cities in each state. It would therefore be necessary for the State Government to direct the quasi-autonomous functional agencies to prepare capital investment plans for the metropolitan areas based on the availability of resources as indicated by State Governments as well as the availability of institutional finances. The necessity of preparing such a plan would automatically induce a dialogue between the local metropolitan authorities and the various functional agencies (including agencies responsible for power, telecommunications, transportation, etc.). It has been suggested above that an urban development plan be prepared for each State on regional lines. The suggestion for a metropolitan sub-head in the State Plan is pertinent in this context since

each metropolitan area would merely constitute a region among the various regions delineated.

Coordination of Physical, Financial and Investment Planning at the State Level

38. There is currently a wide variety in the types of metropolitan level authorities that exist in the different metropolitan cities in the country. It is therefore difficult to provide a uniform institutional recommendation for all the metropolitan cities. It is clear, however, that there is need for a metropolitan planning authority (M.P.A.) which accomplishes all the coordinating tasks necessary in a metropolitan area. For such a process to be feasible it will be necessary for State Governments to vest M.P.A.'s with sufficient authority to achieve this co-ordination.

39. As suggested by the Task Force on "Management of Urban Development", such an authority should not be an executing agency : the capital works implied in a plan should be carried out by the relevant municipal or functional bodies as applicable. The function of the M.P.A. should be to prepare a Five Year Plan co-terminus with National and State Five Year Plan, as well as Annual Plans. This may be done within the context of a long term perspective structure plan for the city which lays out the broad developments expected over 10 to 20 year period. The physical plan should be converted into an investment plan for the 5 year period and consequently a financial plan. This should include capital investment and financial plans prepared by each local authority and functional body in the metropolitan area. These plans should take account of all the financial resources expected to be available. The M.P.A. should then coordinate with the State authorities to reconcile the sectoral allocations and priorities at the State level. The key to the success in such planning coordination lies in the matching of costs of development to the availability of resources and the subsequent revision of priorities and ranges of standards consistent with the resources. The assessment of resources should include the expected private investments in urban infrastructure along with the contributions that private citizens can be expected to make.

40. In order to achieve the coordination between physical and investment plans that is suggested above, the detailed procedures of planning need to be examined and guidelines issued. A Centrally Sponsored Scheme for the development of urban development planning expertise at the Central and State Level has already been recommended. This scheme should specifically include the promotion of techniques and personnel for metropolitan planning on the above lines. Model procedures for metropolitan planning should then be worked out so that they can be institutionalised in M.P.As as experience is developed.

City Surveys

41. A crucial issue in planning is how to ensure that metropolitan planning caters to the need of *all* income groups of the population with respect to shelter, employment as well as the distribution of public services. It is therefore necessary for information to be collected in a comprehensive household/employment sample survey which should be conducted in each of the metropolitan cities every 5 years, preparatory to the planning exercise. The Centrally Sponsored Scheme suggested

above for the strengthening of urban development planning capability should include provision for pilot household surveys in selected cities over the Seventh Plan period. It is also necessary to take steps to improve the access of metropolitan authorities to City Level data from national sources of information such as the National Sample Survey, the decennial population census, and the Central Statistical Organisation. In particular, it is important that access be given to the 1981 Economic Census at the city level before it is outdated.

VI. COORDINATION OF INDUSTRIAL AND URBAN PLANNING

42. The link between urbanisation and industrialisation is demonstrated and substantiated in this Report. It is therefore obvious that it is necessary to have much greater co-ordination of industrial and urban development than has hitherto been the case. There is little linkage between the planning of urban infrastructure, both physical and social and that of industry. Policies concerned with the location of industry are not coordinated with the provision and funding of urban services, nor with associated communication and transport facilities. The converse is also true. The selection of towns under the Integrated Development of Small and Medium Towns (IDSMT) has not been linked with any industrial dispersal schemes. Similarly, the urban development projects in Calcutta, Madras and Kanpur have had little linkage with the requirements of industry in these cities. In view of all this, given the links between the provision of social and physical infrastructure and the location of industry, it is imperative that industrial location measures and measures for housing and shelter for population working for these industries should be linked with urban development programmes. This can be done through regional and subregional urban development plans so that the needs for different kinds of investment are coordinated. This reinforces the recommendations made above concerning the preparation of urban development plans at the State and sub-regional level. Only if this is done will it be possible to take into account the requirements of planned industrial activities in the allocation of urban infrastructure investments. However, some infrastructure require commitment of a large quantum of scarce resources and are lumpy in nature. In other words, the policy for provision of physical and social infrastructure involves larger issues which are beyond the competence of sectoral and city/town decision-making levels. The recommendations for coordination are therefore divided into two heads: lower level links and higher level links.

Lower Level Links

43. The possibility of forging a link between industrial and urban planning depends on the extent to which the two processes can be controlled by public authorities. This possibility of control varies from case to case, and therefore different recommendations are given for each type of industrial town.

Steel Towns

44. A large integrated steel plant typically employs 20,000 to 30,000 workers who, along with their dependents, may constitute a fair sized town. Hence, the establishment of a new town and arrangements for planning this new town have to be built into the project planning exercise. Until now, this has been limited to the planning of housing, social welfare facilities and neighbourhood shopping required by direct employees of the steel plant. This is quite inadequate since it ignores

the need of all the indirectly generated employment and population in these rapidly growing cities. It is therefore essential that the planning exercise for such new industrial towns linked to steel plants (or similar projects) must (a) allow for a population size much larger than that attributable to the steel plant (b) a large range of economic activities linked to but not a part of steel plant. One possibility would be to undertake the new town development as a separate project which would be planned, executed and administered by a separate authority constituted in the same manner as other urban development and planning authorities. The responsibility for infrastructure development would rest with this authority. In order to ensure that this authority is adequately funded, a part of the sum that would normally constitute usual township costs may be provided directly to the authority by the Central Government and earmarked for specific activities. Moreover, to ensure coordination, the steel plant management could be included in the controlling Committee of the UDA. If such an arrangement can be effected there may be a greater degree of coherence in the planning of new towns linked to steel plants. Procedures should also be laid down for the municipalization of these towns over time.

Other Towns with Major Projects

45. Major projects other than steel do not generally involve the establishment of a large new town in a virgin area. The cases covered under this category generally involve the establishment of a township near the project site which is often in the outskirts of the nearby urban centre. This sort of development of relatively isolated township can be seen in Baroda, Hyderabad and Bangalore. Water supply, sanitation and social services for these two townships is also planned in isolation from what is happening in the urban centre. This isolation has several consequences. Firstly, the township cannot use effectively the service facilities available in the urban centre, particularly in the central area. Secondly, the urban centre cannot benefit from the facilities created to service the township. There is therefore a need in such cases for a systematic assessment of the likely impact of the project on in-migration, generation of direct and indirect employment, transportation and other service activities and the implied infrastructure requirements. The responsibilities for undertaking these investments have then to be apportioned between the existing city and the project management. The integration will have to be secured by negotiations and collaborative efforts at planning by the local authority and the project management. As for funding there is a case for setting up a Central Scheme for project-linked urban development which can provide resources to the local authority undertaking its part of the assigned responsibility. The project authority would obtain the funds for its responsibilities as part of the project costs.

Towns with Intensive Industrial Area Development and Small and Medium Industries

46. This category is similar to the second in that an influx of medium and large industries leads to rapid urban growth. It differs, however, in the fact that the impact is not that of one or two very large projects but of several smaller ones. Hence, a linkage based on collaborative effort by project managements and the local authority may not be workable. The rational answer to the planning problem in these cases lies in integrated planning of industrial

and urban infrastructure in the context of an overall urban development plan. The entire exercise should be undertaken by one agency which should be the local authority. The industrial promotion organisation would be given some land by the local authority. The development of housing, commuter transport facilities, water supply, sanitation, etc. would be undertaken by the local authority which would be specifically funded for this purpose. If necessary special state level schemes for Urban Development in Industrial Areas may be set up to provide a channel for such funding. As has been recommended earlier the coordination of these investments as well as allocation should be done at the state level in the preparation of the regional and state level urban development plans.

Higher Level Linkage Industrial Dispersal

47. Decentralisation of industry has been an explicit aim of the government for a long time. Yet, extensive decentralisation of industry has not taken place as a result of all the decentralisation measures. The issue, however, is more complex than is generally supposed. It can be asserted with some confidence now that considerable dispersal of industry *has* taken place in the last fifteen to twenty years, which has at least partly been a direct result of these policy measures. But the pattern of dispersal may not have been as planned or as had been hoped. The Indian performance on dispersal compares well with that of most industrial countries in the world. The proportion of value added in manufacturing to State Domestic Product has gone up in every state. There is, therefore, a trend toward equalisation of these ratios among these states. At the same time, there is no evidence of a shift of industry from larger cities to smaller towns for India as a whole though the picture does vary from state to state. But the increase in the number of large cities with some industrial concentration has been such that the concentration of industry in the four largest metropolitan areas has decreased.

48. The National Committee on The Development of Backward Areas has made a step in the right direction by identifying 100 centres which ought to be considered as industrial growth centres. The selection of these centres should be done on a region based need and fraction exercise rather than mechanical criteria concerning population size and number of industrial workers. The availability of fiscal incentives for dispersal have to be accompanied by the provision of physical infrastructure—transport, communication, institutions, warehousing, power, water, etc.—for dispersal to be successful. Given that there are now over 200 cities with over 100,000 population, and likely to be over 300 by 1991, the existing infrastructure, physical as well as social, should be better utilised. This suggests two courses of action. First, among these cities, those which have low levels of industrial activity and employment could be considered for selection as industrial growth centres. But care could be taken to assess their industrial potential given the regional characteristics and availability of facilities, etc. Second, in the more backward areas, where these cities may not exist, a judicious selection of a small number of centres should be made so that all the required facilities may be provided.

49. It is, therefore, clear that since many of the decisions on outlays and strategies for urban as well as industrial development are made at a higher

level in the State and Central planning apparatus, some links between urban and industrial planning is required in the methods and organisational arrangements for plan formulation. The linkage that is really required in central and state plans relates basically to public sector outlays and policies on industrial location and urban development. Some suggestions have already been given on this account in the suggestions for urban development planning at the central and state levels—particularly the suggestions for coordination within the Planning Commission. Another specific recommendation for large public sector projects which has been mentioned, is that such projects which are likely to generate permanent employment of over 1000 persons or whose investment costs are over Rs. 50 crores should be required to file “urban impact” statements that their urban development implications can be worked out and the required investments planned.

VII. *The Urbanisation of new areas Rapidly Developing Areas*

50. Different areas of the country have different needs in terms of urban infrastructure and facilities. On the one hand are many areas where the pace of development of agricultural and other activities has been quite rapid. These areas also happen to be served by a well distributed network of towns and cities of different sizes which act as growth centres for these regions. The need in the towns and cities of these regions is for the provision of basic urban infrastructure in terms of water supply, sanitation, sewerage, roads, drainage, land development, etc. so that their lack does not hamper growth. Essentially, infrastructure has to follow the existing growing activities in these regions. It is, however, necessary to identify some key growth centres in each State, within the context of the industrial dispersal and State and regional urban development plans suggested earlier, for development as lead centres for their regions.

Slowly Developing Areas

51. There are other vast areas in the country such as Northern Bihar, Eastern Uttar Pradesh, parts of Orissa and Andhra Pradesh and others, which can be identified and which have extremely low levels of urbanisation of about 5-10 per cent. In such areas the growth of all economic activity, both industrial as well as agricultural, has been slow. It is in these areas that special efforts have to be made to provide an impetus to urban growth through the provision of urban services, infrastructure and activities. These areas have vast tracts with no urban settlements which can act as marketing or service centres. Here infrastructure provision has to be made in selected settlements which can be expected to lead the growth of urban activities. It is therefore recommended that :

- (i) a special scheme be designed in the Seventh Plan to identify the regions and centres;
- (ii) funds be earmarked from the Central Sector which may be devoted to the development of these sectors over and above the investments emerging from the state and regional level plans.

This report provides some pointers to the identification of these regions but this has to be done more systematically than has been done here. Many of the selected centres would, for example, be those which would develop as mandis (regulated markets), tehsil, taluka or district centres in the future.

B. Issues in Urban Land Policy

VIII. Review and critique of existing policy

52. The objectives of urban land policy are :

- (i) to achieve an optimum social use of urban land
- (ii) to make land available in adequate quantity at the right time and for reasonable prices to both public authorities as well as individuals
- (iii) to encourage cooperative community effort and bonafide individual builders in the field of land development, housing and construction.
- (iv) to encourage the socially and economically efficient allocation of urban land such that land development is done in a resource conserving manner and that the magnitude of land used is optimal.
- (v) to widen the base of land ownership in order to specially safeguard the interest of the poor and underprivileged sections of urban society.
- (vi) to promote flexibility in land use in response to changes resulting from a growing city.

53. The major problem of urban land policy is a serious imbalance in the supply of and demand for serviced land. Hence, the achievement of the above objectives depends in large measure on the supply of serviced land:

- (i) in adequate quantity
- (ii) at the right locations
- (iii) at the right time
- (iv) at the right price

With the rising pace of urbanisation, extensive participation of the public sector is essential, such that the required tracts of land get developed speedily and access of the poor, in particular, to the land for shelter and employment is assured.

54. Public participation in the land market includes policies for:

- (i) acquisition of land for development
- (ii) the standards used for development
- (iii) extent of public control over urban land
- (iv) extent of public ownership of urban land
- (v) regulation of trade in urban land

55. Policies related to the urban land market may be distinguished between:

- (i) Developed urban land (i.e. land in built up areas).
- (ii) Undeveloped urban land (i.e. undeveloped urbanised land within city limits).
- (iii) Land within urbanisable limits.
(yet undeveloped but likely to be urbanised within 10 or 15 years).
- (iv) Land beyond urbanised limits.
- (v) Land for green belt and community purposes.

56. Public control and ownership of urban land can be helpful for mainly three purposes:

- (i) Organisation of orderly development of a city as it expands;
- (ii) Land must be available for public purposes: roads, parks, schools, hospitals, community centres, etc.;
- (iii) Provision of shelter and employment for the poor;

57. Acquisition of land in the urban fringe at low agricultural use prices for high income housing, commercial development or beautification of the city cannot be justified in terms of public purposes.

58. Public control of land does not necessarily mean that all this land should be developed exclusively by public authorities. In fact, the authority responsible for development and construction should, as far as possible, be different from the authority which owns or controls the land.

Accountability of Urban Development and Local Authorities

59. The activities carried out by urban development authorities and other local authorities are done so in the name of "public interest". Frequently, irrational decisions or decisions favouring specific interest groups are also justified by urban authorities on the basis of their supposed public interest. Some such examples are frequent removal of "slums" or "low income settlements" from certain locations to place the same land under use as gardens or upper/middle income housing or commercial and industrial uses. The concept of "public interest" needs to be defined more clearly so that interests of all sections of the public are given due weightage. The following measures may be considered for better monitoring and accountability of these authorities in serving the public interest:

- (i) Urban development authorities and other local authorities involved in developmental works should be required to prepare annual statements which give an accounting of their activities during the relevant year. This may specifically include an accounting of the land that has been developed during the year and its allocation to different income groups—for both shelter as well as employment purposes.

- (ii) State Governments may appoint an overseeing panel which scrutinises these annual reports in relation to declared plans and objectives of these authorities and evaluate their service in the public interest. These reports and scrutiny should be made public.
- (iii) Preferential access to land through non-market concessional channels to privileged groups should be discontinued so that the poor have better access to the publicly developed land made available.
- (iv) An account of the number of new establishments set up in the secondary and tertiary sectors and the extra employment generated in them.
- (v) An account of proximity or otherwise of housing and shelter of those employed to their places of work with reference to (iv).

The Experience of the Delhi Development Authority

60. The Delhi Development Authority has gathered unique experience in many fields which awaits an objective assessment which would be of immense benefit to other cities. A partial assessment has been offered in this report but this is based on fragmentary published data. It is recommended that a systematic review of the operation of D.D.A. be made to derive useful lessons on:

- (a) the importance of adhering to the social and economic objectives of a Master Plan of development which tends to be diluted or distorted in the rough and tumble of day to day operations.
- (b) DDA's experience in
 - (i) the operation of freehold and leasehold land
 - (ii) dispersal and redensification
 - (iii) land zoning
 - (iv) land pricing and sale instrument of predetermined pricing, reserve pricing and open auction.
 - (v) taxation, development levies etc.
 - (vi) looking after the diverse and often conflicting interests of social and economic groups, industrial and commercial demands.

IX. Urban Land Policy: some New Directions *Legislation Regulating Urban Land*

61. A host of multifarious and variegated legal tools including the Land Acquisition Act, State Town and Country Planning Acts, municipal enactments, Slum Areas Legislation, The Urban Land Ceiling Act and others dealing with development control have precipitated overlapping, and, at times, inconsistent legal provisions in urban areas. Comprehensive legislation that integrates economic development with settlement planning should be promoted and the Model Urban and Regional Planning and Development Act which has been recommended by the Central Government to all States to enact should be pursued with renewed vigour, preferably in lieu of existing legislation but at least supplementary to such legislation where existing State and local government situations necessitate adjustments. In this connection, the Central

Government has also issued a Model State Zone Act in 1970 and supplemented it by the Model Land Use Zoning Regulations in 1971 so as to include mixed land uses as an integrated component of the urban land development process. It is recommended that these Model Acts and Regulations be re-examined to ensure that their provisions do not hamper the access of the poor to land for affordable shelter and employment and reissued to States to enforce subsequently.

Town Planning and Building Regulations

62. Many of the standards set in such regulations are unsuitable and even economically unattainable for settlement patterns of a large proportion of urban dwellers with low incomes. Such standards make illegal, by definition, any shelter affordable by low income families. There is urgent need for their modification and a range of standards may be recommended taking into account the different needs of the old core cities, newly developing areas, urban and rural villages, etc.

Land Assembly and Development

63. The modalities for achieving public control of land can involve several elements and a combination of approaches to the assembly, development and disposal of urban land will have to be followed in order to accelerate the supply of serviced land

Land Acquisition

64. Some part can be acquired under the Land Acquisition Act. But land notified at any given time should be acquired within a frame of 2-3 years. Large tracts of land should therefore not be notified at a certain time and actual acquisition conducted years later at the grave expense of agriculturalists. Any land acquisition activity must make adequate provision for reasonable compensation of the farmers whose land is acquired and, more important, for programmes for their rehabilitation through training and employment, and share in developed land.

Land Readjustment

65. Land development through public control can also be done through a process of "*land readjustment*" schemes or other methods on similar principles. The core of the idea is to compensate original owners of acquired land in kind by returning portions of the serviced developed land. In brief, a land readjustment is a process whereby a public authority assembles numerous small parcels of raw land without paying monetary compensation to the owners, services and subdivides the land for urban use, returns a portion of the resulting building sites to the original owners in proportion to the value of their land contributions and sells the remaining sites to cover all public costs. Hence, land readjustment is a temporary form of public ownership to achieve unified control over large areas and means of financing public service installation during the crucial land development stage of urban growth. Such schemes, with variations, have been used very effectively in Korea, Taiwan, Japan and Australia (where it is known as land pooling). A number of variations are possible: owners can be

given equity participation in the serviced land as opposed to actual land; the proportions of land returned can be varied according to social policy; some plots can be auctioned for recovery of development costs, etc.

Right of Pre-emptive Purchase

66. As a measure against speculation and the future registration of land transactions at the fringe, the public authority should have the right of 'Pre-emptive purchase' whereby it would have the right to purchase any transacted plot at the stated price plus a designated X per cent, say 15—20 per cent.

67. Thus, the approach toward land development should be reoriented to enlist the participation and cooperation of people rather than proceed in an authoritarian manner.

Urban Renewal

68. In the continuously ageing urban centres of India, obsolescence is an on-going process and its magnitude at any given time is extremely large and usually beyond the capability of local public authorities to effect renewal. Apart from a few initiatives in Maharashtra there has hardly been any effort to consider and design strategies which can help tackle this problem. It has to be recognised that existing laws may not be adequate to achieve the desired ends. Furthermore, legal tools alone would not suffice to tackle these extremely complex tasks. A combination of laws, fiscal inputs, administrative strategies, etc., would be indispensable. Hence, two of the major tasks that will increasingly engage the attention of metropolitan authorities are (1) urban redensification and (2) urban renewal. These are areas which have hitherto been neglected and need wide discussion both among appropriate authorities as well as institutions interested in economic efficiency, social equity and environmental improvement. It is important to proceed to organise instruments and institutions of organised debate and frequent exchange of information on these areas to facilitate the evolution of desirable policies and the relevance of organising suitable financing, planning and executing authorities under public control.

69. It is recommended that the Ministry of Works and Housing initiate procedures immediately so that the suggestions incorporated in paragraphs 64, 65, 66 and 68 are implemented during the Seventh Plan period. Detailed consultation with the Law Ministry and State Governments would be necessary to make these measures feasible. It may be desirable to formulate pilot schemes to initiate the implementation of these suggestions.

X. Developing Urban Land Information Systems

70. Some of the measures suggested above require an improved system of land records in terms of both prices as well as owners.

71. *Information on Fringe Lands :*

(i) *Register of Original Holders*

If a land readjustment scheme is to operate with the objective of compensating farmers adequately, a detailed land record of original holders on the fringe of designated urban areas has to be kept.

(ii) *Standard Price System*

Both for purposes of land acquisition and land readjustment it is important to regulate the agricultural land prices prevailing on the fringe. Areas on the fringe of urban areas can be designated in rings and zones and a "standard price" announced (based on actual value) for each area in base year. Subsequent to that, inflation adjustments can be indexed and announced every year alongwith other real price rises that are observed to occur around the notified areas. It is recommended that such a system may start with the 12 metropolitan cities and, as experience improves, extended to other Class I cities and further. This would be useful for curbing speculation in the fringe areas.

72. *Information on Already Developed Areas :*

(i) *Register of Owners*

The existing system of land records in urban areas is quite inadequate in most cities. There are no authoritative records of existing owners of the different plots in cities. It is therefore necessary to initiate a system of land ownership records. Since this would be a very large and expensive exercise, a beginning may be made with systematic registration of all new transactions. Schemes may also be begun in selected cities for preparing a comprehensive register of all land owners.

(ii) *Land Price System*

A land price system for already urbanised areas is intended to provide a reliable pricing guide to those proceeding to land transactions by regularly publishing adequate land prices for the purposes of formulating rational land prices. Representative land tracts may be chosen in a grid in urban areas. A representative land tract may be defined as a unit of land where utilisation and environmental conditions are considered normal and which is found in an area where natural and social conditions make it evenly usable for common purposes. In such an intensive area, a unit of land is chosen as representative and its price observed and published. Once the land prices are published every year, the price in every land transaction should be certified by a licensed land appraiser who has taken into account the published price of a similar plot in question. Public authorities also then have to respect the published land prices.

This system may be started on a pilot basis in the four largest metropolitan cities : Calcutta, Bombay, Delhi and Madras during the immediate Seventh Plan period. Again, as experience develops, it can be extended to other urban

areas over the next 15 years. It will be necessary to take steps to initiate a system whereby a corps of trained and licensed land value appraisers can emerge over the country.

Government Land

173. At present large tracts of urban land are owned by different government agencies and there is no accounting of the total amount of land currently owned by the government in each city. In many cases much of this land is frozen in sub-optimal uses and often in prime areas of the city. It is recommended that the local public authority should identify all lands owned by the government and its different agencies and examine their existing land use and efficiency of such use. Machinery should also be set up for issuing guidelines for the better allocation of government lands once their existing uses are known.

PREFACE

The results of the 1981 Census point to the signs of a continuing structural change in the rural-urban ratio of our population and economic enterprise. The problems of agriculture and rural development and of other core sectors have quite rightly claimed priority attention in the past. But the new pace of urbanisation along with growth in the secondary and tertiary sectors of the economy demand fresh thinking in our urban policies.

It was with these considerations in view that Dr. Manmohan Singh, then Member-Secretary of the Planning Commission, called an *ad-hoc* meeting on June 25, 1982, to discuss a background paper on "Strategy of Housing and Urban Development: Some New Perspectives" prepared in the Planning Commission. A wide range of academics and administrators, with experience in urban affairs and economics, were invited to attend and suggest steps that should be taken on this issue. The list of invitees is given in Annex P.1. The meeting was chaired by Prof. M.G.K. Menon, Member, Planning Commission, and attended also by Prof. C.H. Hanumantha Rao, Member, and Dr. Manmohan Singh, Member-Secretary along with Advisers in the Planning Commission.

The main recommendation that emerged from this meeting was that a number of Task Forces be appointed without delay by the Planning Commission to evolve a long-term perspective on housing and urban development issues. Consequently, the Planning Commission appointed 4 Task Forces on :

- (i) Planning of Urban Development
(Chairman, Professor Asok Mitra)
- (ii) Financing of Urban Development
(Chairman, Professor Raja Chelliah)
- (iii) Management of Urban Development
(Chairman, Sri K.C. Sivaramakrishnan)
- (iv) Shelter for the Urban Poor and Slum Improvement
(Chairman, Sri L.M. Menezes)

Member-Secretary to all the Task Forces : Dr. Rakesh Mohan,
Senior Consultant, Planning Commission.

The notification setting up these Task Forces along with their composition and terms of references is given as Annex P. 2.

The Task Force on "Planning of Urban Development" with Professor Asok Mitra of Jawaharlal Nehru University, formerly Secretary, Planning Commission and Registrar General and Census Commissioner of India, as

Chairman, was constituted with members with a wide range of experience in urban planning, development administration, voluntary work and economics research from different parts of the country. All members of the Task Force gave generously of their time and energies voluntarily to the work of Task Force.

The term of the Task Force was originally fixed up to June 15, 1983 but was extended up to September 30, 1983. This Report is being submitted well within the stipulated time.

The work of the Task Force was inaugurated on February 25, 1983 by Professor A.M. Khusro, Member, Planning Commission, responsible for the area of Housing and Urban Development. The Task Force held three additional meetings on April 15 and 16, June 22 and 23 and August 22 and 23, 1983.

At the start of its work the Task Force decided to ask the different members to prepare background notes on specific terms of reference which were carefully drawn up by the Member-Secretary Dr. Rakesh Mohan. The papers received were issued as "Urban Development Task Force Papers" and are listed in Annex P. 3. Other shorter notes were also received and these are also listed.

All members have contributed to the work of the Task Force. At the outset, the Task Force would like to express its gratitude to Professor A.M. Khusro, Member, Planning Commission, who initiated the work of the Task Force with his characteristic sweep and insight. His continued interest in this area and his support and participation in the deliberations of the Task Force has been a source of inspiration. The Task Force is grateful to Sri L.M. Menezes, Joint Secretary, Ministry of Works and Housing, and Sri E.F.N. Ribeiro, Chief Planner, Town & Country Planning Organisation (TCPO) for providing the core Secretariat Staff. Sri M.B. Mathur and Sri V.P. Upadhyaya who were loaned by the T.C.P.O. for this work have worked very hard and helped greatly in expediting the work of the Task Force. For stenographic help we are grateful to Sri B.K. Khera, P.A. (of Planning Commission) and Sri O.P. Madan (of T.C.P.O.) who have borne the brunt of the burden, supported by Sarvashri Kimti Lal, B.C. Sharma and M.L. Sharma (PC). Other able secretariat help has been provided by Sarvashri Setia and Krishan Gopal along with Sri Hari Singh Yadav. The Task Force is grateful to all members of the secretariat staff for the diligence and dedication with which they have fulfilled their duties. Above all, all members and particularly the Chairman, are indebted to Dr. Rakesh Mohan, Member-Secretary, for relentlessly keeping them on the ball.

This report, apart from the merit that it possesses, is a tribute to the dedicated work of all the members, who gave of their time so generously and voluntarily to complete their task well within six months from the start.

ANNEX P—1

AD HOC MEETING ON HOUSING AND URBAN DEVELOPMENT, JUNE 25, 1982

An Ad-hoc Meeting on Housing and Urban Development was held in the Planning Commission on June 25, 1982 and chaired by Professor M.G.K. Menon, Member, Planning Commission. The following from outside the Commission were invited to attend the meeting :

L. K. Jha
Chairman
Economic Administration Reforms Commission

M. K. Mukherji
Secretary
Ministry of Work & Housing

@H. U. Bijlani
Chairman
Housing and Urban Development Corporation

S. S. Shafi
Chief Planner
Town and Country Planning Organisation
New Delhi

M. N. Buch
Director
National Institute of Urban Affairs

M. G. Kutty
Chief Executive Officer
Calcutta Metropolitan Development Authority

H. M. Singh
Vice-Chairman
Madras Metropolitan Development Authority

J. B. D' Souza
Principal
Administrative Staff College of India

Ashok Mitra
Professor
Jawaharlal Nehru University

Mrinal Datta Choudhary
Professor
Delhi School of Economics

@Moonis Raza
Director
National Institute of Educational Planning & Administration

@Raja Chelliah
Director
National Institute of Public Finance & Policy & Member,
Economic Administration Re-forms Commission

*Were not able to attend but sent written comments.

@Were not able to attend.

@Asim Dasgupta
Professor
Calcutta University and Member² West Bengal Planning Board

@S. Guhan
Professor
Madras Institute of Development Statistics

G.V. K. Rao
Bangalore

@Charles Correa
Architect
Bombay.

Bharat Bansal
Planner
Delhi.

Ashish Bose
Professor
Institute of Economic Growth

H. T. Parekh
Chairman
Housing Development and Finance Corporation
Bombay

The following also attended the Meeting:

PLANNING COMMISSION

C. H. Hanumantha Rao
Member

Manmohan Singh
Member-Secretary

S. P. Gupta
Adviser (Perspective Planning)

Baldev Singh
Adviser (State Plans)

Prakash Narain
Adviser (Transport)

Nitin Desai
Adviser (Project Appraisal)

K. Kanungo
Adviser (Agriculture)

M. Q. Dalvi
UNDP Adviser (Transport)

P. K. Srinivasan
Dy. Adviser (Housing and Urban Development)

Rakesh Mohan
Senior Consultant (Perspective Planning)

@ Were not able to attend.

Syed Aftab Ahmed
Information Officer

OTHERS

L. M. Menezes
Joint Secretary, Ministry of Works & Housing

P. S. A. Sundaram
Director (Urban Development)
Ministry of Works & Housing

M.K. Moitra
Director (Housing)
Ministry of Works & Housing

S. S. Ahuja
Chief (Finance)
Housing & Urban Development Corporation.

Deepak Parekh
Deputy General Manager
Housing Development Finance Corporation

Nasser Munjee
Economist
Housing Development Finance Corpn.

Venkatachalam
Housing Development Finance Corporation
Delhi.

Annex P-2

No. P C/H/1/9/82
Government of India
Planning Commission
(Housing, Urban Development & Water Supply Division)
New Delhi,
January 25, 1983.

In order to examine issues related to the Strategy for Housing and Urban Development the Planning Commission has decided to appoint four Task Forces so that policies and programmes in this field may be formulated with a proper perspective in the Seventh Five Year Plan.

2. The task forces are as follows :

- A. Task Force on Planning of Urban Development
- B. Task Force on Financing of Urban Development
- C. Task Force on Management of Urban Development
- D. Task Force on Shelter for the Urban Poor and Slum Improvement.

The composition and terms of reference for each task force are given in the Annexures 'A' to 'D'

3. Non-official members of the Task Force shall be entitled to TA/DA as permissible to Grade-I officers of the Government of India and will be paid by the Planning Commission. TA/DA to official members will be paid by their parent departments.

4. The Task Forces are requested to furnish their final reports to the Planning Commission by June 15, 1983.

5. All correspondence to these Task Forces may be addressed to Dr. Rakesh Mohan, Consultant, Planning Commission, New Delhi.

Sd/-

(K. C. Agarwal)

Director (Administration)

1. Chairmen of Task Forces (by name).
 2. Members of the Task Forces (by name).
- Copy for information to :

1. PS to Dy. Chairman.
2. PS to Member (F)/(H)/ (M)/(K).
3. PS to Secretary.
4. All Heads of Divisions.
5. Admn.-I.
6. Accounts-I.
7. General Branches I & II.

Sd/-

(K. C. Agarwal)

Director (Administration)

(xxxvii)

No. PC/H/1/9/82

Government of India

Planning Commission

(Housing, U.D. & Water Supply Division)

Yojana Bhavan
New Delhi

2 July, 1983.

In pursuance of Planning Commission Office Memorandum of even number dated 25-1-1983 regarding the Task Forces on (a) Planning of Urban Development, (b) Financing of Urban Development, (c) Management of Urban Development and (d) Shelter for the Urban Poor and Slum Improvement, it has been decided to extend the term of these Task Forces till the 30th September, 1983.

Sd/-
(K.C. Agarwal)
Director (Administration)

1. Chairmen of Task Forces (by name).
2. Members of the Task Forces (by name).

Copy for information to :

1. PS to Dy. Chairman.
2. PS to Member (F)/(H)/(M)/(K).
3. PS to Secretary.
4. All Heads of Divisions.
5. Admn. I.
6. Accounts-I.
7. General Branches I & II.

Sd/-
(K.C. Agarwal)
Director (Administration)

Annexure 'A'

Planning of Urban Development

An acceleration in the rate of urbanisation has been observed in the 1981 Census and it may be expected that such a rate might continue in the foreseeable future. Hence policy on urban development must recognise this and plans made accordingly. Issues concerned with urban land policy assume crucial significance with the continued expansion of most if not all towns. The task force is expected to examine the processes of planning of urban development and the associated issues in urban land policy as they would be appropriate for the urbanisation experience expected over the next 15 years.

The terms of reference for the task force are :

- A. 1. To examine the impact on urbanisation of overall structural change in the economy; and to consider specifically the pattern of urban employment which is consistent with the increasing share of urban areas in national income.
2. To project the pattern of urbanisation that may be expected over the next 15 years and to estimate the degree of urbanisation and the magnitude of income arising from urban areas.
3. In light of the above to outline the key objectives of urban development planning for the future.
4. To examine the existing systems of urban development planning at the national, state and local levels and to suggest measures and methods for their improvement. These may include criteria for the selection of new urban centres, and consideration of institutions which would be appropriate for the emerging needs of the future, and of the role of regional urban development planning.
5. To consider specifically measures for better coordination of industrial development and urban development planning such that the provision of physical and social infrastructure is appropriate.
6. To examine the current processes of urban planning in the larger cities and suggest measures such that economic investment planning and physical planning in these cities is integrated and coordinated with regular regional, state and national planning exercises; and
7. To examine the alternative strategy of urbanization of selected rural pockets with large growth potential and provision of infrastructure in these pockets with a view to slowing down the rate of rural-to-urban migration and to make life more productive and worthwhile in rural areas.

- B. 1. To examine critically the existing policies and measures directed towards land assembly and development in urban areas. Specifically, the success achieved as well as problems encountered by such policies should be identified.
2. To examine critically the existing regulations governing the land market and to suggest measures for their improvement such that urban land speculation may be curbed. This may include consideration of land taxation measures, including the efficacy of the property tax.
3. To estimate the expected demand for urban land over the next 15 years.
4. To suggest innovative methods of large scale assembly and development of urban land such that land developed can be accelerated in a resource conserving manner. Specifically, the "land readjustment" method may be examined and particular consideration may be given to the practicability of its application in India.
5. To consider the possibility of establishing a land price monitoring system in the larger cities in the country and suggest procedures by which it could be implemented.

The members of this Task Force will be—

Prof. Asok Mitra	—Professor, Jawaharlal Nehru University, New Delhi.
	—Chairman
Shri Nitin Desai	—Adviser, Planning Commission
	—Member
Dr. S P Guptak	—Adviser, Planning Commission
	—Member
Dr. Amitabh Kundu	—Centre for Study of Regional Develop- ment, Jawaharlal Nehru University
	—Member
Shri V. K. Pathak	—Senior Planner, Bombay Metropolitan Development Authority
	—Member
Prof. Ashish Bose	—Professor, Institute of Economic Growth, Delhi.
	—Member
Shri R. M. Kapoor	—Urban Studies Centre, Times Research Foundation, Calcutta.
	—Member

(xl)

- Ms Madhu Sarin . . . —Urban Planner, Chandigarh.
—Member
- Shri M. Shankar . . . —Director (Lands), Ministry of Works
& Housing.
—Member
- Prof. Waheeduddin Khan . . . —Director, Centre for Economic and
Social Studies, Hyderabad.
—Member
- Dr Rakesh Mohan . . . —Senior Consultant

The following were also appointed as Members of the Task Force prior to the First Meeting of the Task Force :

1. Mr. E.F.N. Ribeiro . . . Chief Planner, Town & Country Planning Organisation, New Delhi.
2. Mr. Anand Sarup . . . Adviser, Evaluation, Planning Commission (now Additional Secretary, Ministry of Commerce, Govt. of India, New Delhi.)
3. Prof. J. Krishnamurthy . . . Reader, Delhi School of Economic, Delhi.

Annexure 'B'

Financing of Urban Development

With the expectation of continuing urbanization in the foreseeable future in India there will be an increasing requirement for investment in urban infrastructure and other facilities. The financing of these investments are likely to pose serious problems in light of other pressing demands for available resources. The task force is therefore expected to examine the whole issue of financing of urban development with a time perspective of the next 15 years.

The terms of reference for the task force are—

A. Examine the existing system of financing of investments as well as maintenance of social overhead infrastructure in urban areas. Specifically,

1. To assess the adequacy of urban local finances and the existing methods of devolution of state and central funds to urban areas and to suggest reforms.
2. To examine particularly the key local taxes: octroi and property taxes and frame guidelines for their improvement.
3. To examine laws or legislative provisions which affect the financing of urban development and to make appropriate recommendations.

B. In the light of expected urbanization and income increases to make projections of the requirements for investment in urban infrastructure investments over the next 15 years. Specifically,

1. To suggest institutional arrangements such that these funds can be generated in a way that urban areas are largely self-financing.
2. To suggest specific innovative methods by which there can be greater generation of funds for these investments.
3. To consider the advisability of establishing an Apex Urban Development Financing Agency for channelising funds for urban infrastructure investments.

The members of this Task Force will be—

- (1) Prof Raja K Chelliah . . . —Member, Economic Administration Reforms Commission, New Delhi.
—Chairman
- (2) Shri V Ramachandran . . . —Commissioner for Economic Development, Govt. of Kerala, Trivandrum.
—Member

- (3) Prof Abhijit Datta . . . —Professor, Indian Institute of Public Administration, New Delhi.
—Member
- (4) Shri M G Kutty . . . —Chief Executive Officer, Calcutta Metropolitan Development Authority, Calcutta.
—Member
- (5) Dr Shankar Acharya . . . —National Institute of Public Finance & Policy, New Delhi.
—Member
- (6) Mr Deepak Parekh . . . —Dy. General Manager, Housing Development and Finance Corporation, Bombay.
—Member
- (7) Dr Rakesh Mohan . . . —Senior Consultant, Planning Commission.
—Member-Secretary

Management of Urban Development

The size of almost all towns and cities in the country is expected to increase in the foreseeable future. Accompanying this increase in size the problem of managing these cities is likely to become more and more complex requiring changes in the mode of their management. The Task Force is therefore expected to frame the key issues in the management of cities as they may be expected to evolve over the next 15 years.

The terms of reference for the task force are :

1. To assess the existing role of local authorities in the management of towns and cities. This would include a critical review of their responsibilities and functions as expected and how they are discharged in practice.
2. To examine the relationship between local authorities and urban development authorities and suggest guidelines for clearer demarcation of their role in urban management.
3. To suggest the directions in which the management of urban development may be improved over the next 15 years. This may include specific consideration of urban development maintenance measures to strengthen local authorities.
4. To examine the feasibility and desirability of the decentralisation of urban management in large cities. This may include specific consideration of a wide-spread urban community development programme.
5. To examine the existing systems for training in urban management and suggest measures for their improvement.

The members of the Task Force will be—

- (1) Shri K C Sivaramakrishnan . —Govt. of West Bengal, Calcutta.
—Chairman
- (2) Mr M N Buch . . . —Director, National Institute of Urban Affairs.
—Member
- (3) Shri Kalyan Biswas . . —Secretary, Industrial Reconstruction, Govt. of West Bengal.
—Member
- (4) Prof Manzoor Alam . . —Director, Area Study Centre, Osmania University, Hyderabad.
—Member
- (5) Dr. Rakesh Mohan . . —Senior Consultant, Planning Commission.
—Member-Secretary

Sri H.M. Singh was also appointed as member of the Task Force prior to the second meeting.

Annexure 'D'

Shelter for the Urban Poor and Slum Improvement

The acceleration in the rate of growth of urban areas has been accompanied by an even greater increase in the urban poor as well as in habitations generally regarded as slums. This situation can be expected to continue with the continuing increases in urbanisation and perhaps, get worse, if imaginative but realistic programmes are not designed such that the urban poor are able to get access to appropriate opportunities for habitation. The task force is expected to examine the whole issue of the provision of shelter for the urban poor with a 15 year perspective.

The terms of reference for the task force are :

1. To examine critically the existing policies and programmes concerned with shelter for the poor and identify the key problems encountered.
2. To review the existing local and other legal impediments which tend to hamper the poor from making their own housing investments.
3. To estimate the affordable demand for shelter that may be expected from the urban poor over the next 15 years.
4. To identify existing specific innovative programmes which have been found to be successful in different urban areas and to suggest ways and means for their adoption in other places.
5. To suggest policies and programmes for shelter for the urban poor which are financially feasible as well as institutionally viable. This may include specific consideration of the feasibility of providing housing finance in small amounts such that incremental development becomes easier for both existing and new units.
6. To suggest measures for universal slum improvement and to estimate the implied financial costs.

The members of the Task Force will be:

- | | |
|-----------------------------------|--|
| (1) Mr Louis M: Menezes | — Joint Secretary, Ministry of
Works & Housing
—Chairman |
| (2) Shri Kirtee Shah | —Ahmedabad Study Action
Group, Ahmedabad
Member |

(xlv)

- (3) Dr. Meera Bapat —Centre for Development
Studies & Activities,
Poonā.
—Member,
- (4) Shri S. S. Tinaiker —Secretary, Housing De-
partment, Govt. of Maha-
rashtra, Bombay.
—Member
- (5) Dr. Rakesh Mohan —Senior Consultant, Planning
Commission, Member-
Secretary

Shri H.U. Bijlani was also appointed as Member of the Task Force prior to the first meeting.

Annex.— P. 3.

List of Material submitted to the Task Force on "Planning of Urban Development."

A. Urban Development Task Force Papers.

- P.1 Rakesh Mohan . . . The Regional Pattern of Urbanization and Economic Development in India
- P.2 Rakesh Mohan . . . Urban Policies in India : A Review and Critique
- P.3 R. M. Kapoor . . . Legislation Governing the Land Market
- P.4 Amitabh Kundu . . . A Settlement Policy in the Context of Regional Economic Development
- P.5 Amitabh Kundu . . . Information System for Urban Planning in India
- P.6 Rakesh Mohan . . . A Review and Critique of Existing Urban Land Policy in India
- P.7 Rakesh Mohan . . . The Introduction of a Land Price Publication System in India
- P. 8 Anand Sarup
Louis Menezes
Rakesh Mohon . . . Urban Development Planning: Suggestions for a New Approach
- P. 9 Rakesh Mohan . . . Innovative Methods of Land Assembly and Development: Land Readjustment and Town Planning Schemes
- P.10 J. Krishnamurthy . . . The Urban Employment Scene

B. Notes submitted to the Task Force

- Ashok Mitra . . . Recommendations for Metropolitan Development Planning
- V. K. Phatak . . . Coordination between Physical Planning and Investment Planning
- Madhu Sarin . . . Some Points for discussion : Terms of Reference A. 4 and A. 6
- Waheeduddin Khan . . . Urban, Industrial and Infrastructure Development

(xlvii)

J. Krishnamurthy	.	.	.	Population Projections
Rakesh Mohan	.	.	.	Urbanization Projections
Waheeduddin Khan	.	.	.	Regionalization for Urban Development Policy
V.K. Phatak	.	.	.	Hypothetical Land Readjustment Scheme
J. G. Keskar	.	.	.	Town Planning Schemes in Maharashtra
Nitin Desai	.	.	.	Coordination of Industrial and Urban Development.

I. URBAN DEVELOPMENT IN INDIA : REASONS & OBJECTIVES

The Longer Term

1.1 The national targets that have been set for agricultural production for 2000 demand a steep increase in productivity per unit of land as well as per unit of labour. Intermediate technologies of labour-intensive cultivation must rapidly give way to increasing investment per unit of land in terms of inputs and farm machinery. It would be idle to imagine that the rapid rise in rural population through demographic growth can be absorbed in agriculture as far as 2000 AD and still ensure its growth in productivity and total production. Twenty years ago roughly 55 percent of Gross Domestic Product was being created by 70 percent of the labour force in agriculture. Today a similar 70 percent is creating only 35 to 40 percent as the contribution of agriculture to GDP. Land under cultivation has not significantly increased. On the contrary the constant proportion of 70 percent of population means an additional burden of about 160 million persons on the same quantity of land after 20 years. Even the most massive food-for-work programmes, continued steadily up to 2000 AD, will hardly suffice to keep our excess population productively engaged. This is gross proof of how seriously agriculture is encumbered today.

1.2 This apart, it has to be acknowledged as a major instrument of public policy that rural prosperity can no longer be contained in rural areas. The recent spurt in India's urbanization is an inevitable reflection of the changing structure of the economy towards the secondary and tertiary sectors. Throughout modern history rural agricultural push has been almost as strong as urban and industrial pull. Rural prosperity will bring about more accumulation of material and human capital than agriculture can absorb. Agricultural profits will demand diversification in non-agricultural portfolios. Improvement in rural human resources through growth in education, health, skills and institutions, must find play in urban, non-agricultural enterprise.

1.3 Despite the still appalling isolation of innumerable villages and rural settlements, particularly in backward regions, the urge to secure a place for each in the national or regional market network of goods and services and wages has grown irresistibly in the last twenty years. There can be no two opinions that a town, however small, or a semi-rural growth centre or mandi, is the visible symbol and instrument of a national or regional market network. In most countries of the world today—not excluding Africa—the ratio of the urban population is far greater than India's paltry 24 percent. In most countries the ratio of rural to urban settlements ranges between 6 and 20 to 1. But in India this ratio is still at least as high as 180 to 1. This figure alone tells volumes about the state of access of our rural areas to the national and regional markets. The prospective toll of this situation on agricultural growth and rural prosperity can only be imagined. Besides, urban household and non-household manufacturing and services cry out to be rapidly expanded to stimulate rural demands for goods and services. Continuous rise of effective demand in rural areas will be the abiding guarantee of growth in agricultural productivity. We have reached

the stage where further neglect of the urbanization process, and attempts to thwart its rapid articulation will kill the goose that promises the golden egg of agricultural self-sufficiency.

1.4 The Second Plan set the national aim as attainment of the good life. This goal will elude us in the foreseeable future. Strictly speaking, except for the happy few, the rest, even in Delhi, not to speak of other metropolitan cities, non-metropolitan towns, growth centres or mandis, do not enjoy even the minimum urban amenities available in Europe or North America or the East Asian seaboard. Every urban amenity in India, even in metropolitan areas, is available at far less than commonly accepted norms to the common citizen : sewerage and sanitation, potable water, education, health, transportation, environmental sanitation, permissible pollution, housing, energy supply, institutional facilities. Communication, a practical yardstick of urban amenity and efficiency, does not work. Many countries now can directly get a village or city on the telephone from one end to other in a matter of seconds. The telephone is available to a small fraction of urban areas. It takes, if one is lucky, half an hour to make an intracity telephone call in Delhi. This is the state of our national communication network. No institutional facility is available as a matter of course and right to a private citizen. It is always a hard and fearfully earned favour.

1.5 The see-saw of political fortunes in the last twenty years—manifested mainly through the popular vote—point to the extreme necessity of securing complementarity between rural and urban areas. This is essential for securing the political stability and unity of the country. Attitudes towards the urbanisation process in the next twenty years must therefore be guided not by unattainable dreams of conspicuous expenditure on a small number of urban areas, but by practical, hardheaded considerations.

1.6 Some of these considerations are :

(i) Rapid expansion of non-agricultural livelihoods and employment assisted by the promotion of education and technological skills at urban and semi-urban nodes that will offer economies of scale in the exploitation of physical and institutional infrastructure and provide competitive markets for wages and skills. Further economic growth will be difficult without a restructuring of our future working force which is more in consonance with the composition of our GDP.

(ii) Rapid articulation of a very large number of growth centres or mandi settlements each of which will enjoy a minimum infrastructure of energy installation, financial, servicing and counselling institutions, communications connecting neighbouring villages to the regional network, sites or locations for setting up warehousing, industries and services for local and regional needs, minimum telecommunication, education, housing and welfare facilities. In short, amenities that will connect the surrounding rural areas to the national or regional, market network of wages, industrial products, spares and consumer goods and reduce the present urban-rural settlement ratio of 180 to 1 to a possible 25/30 to 1. These settlements will serve partly as outlets for investment of surplus capital and human resources of rural population and for upgrading human skills and productivity.

(iii) Fresh and renewed endeavour at recreating regional networks of infrastructure is needed for securing interdependencies between size hierarchies of rural and urban settlements in defined spaces. At present these interdependencies exist more in terms of one-way distribution outlets of goods and services from larger to smaller settlements rather than the other way round in terms of industrial and raw material supplies or of supply of ancillaries or even labour from the smaller to the larger settlements. Establishment of two-way hierarchy networks will be facilitated only when the kind of infrastructure mentioned in the case of growth centres or mandi towns is proportionately augmented in the larger size classes.

(iv) The existing network of state capital city, major intra-state urban nodes, district, subdivisional, tehsil and mandi towns awaits to be strengthened with expansion of infrastructure proportionate to the size class importance of each link. The object in each case should be more the expansion of non-agricultural investment opportunities and employment, improvements in human resources and skills, markets and goods and services rather than the pursuit of unrealisable norms of urban amenities at state expense. This is not to suggest that urban amenities should be neglected (in fact, urban amenities act as a potent and abiding pull factor and determinant of higher urban and industrial productivity) but that wealthgenerating sectors in urbanization investments should receive at least as much priority for the next several decades as consumption investments. There has been a marked tendency in recent decades towards improvements in urban amenities to the implied neglect of urban production investment and employment. Recent trends in metropolitan development have set the pace in this regard. This needs to be corrected.

1.7 It is possible to think of a fair number of small towns where some urban amenities are available. On the other hand, one can think of very few lower order urban centres in India that can boast of brand-new, modern-technology non-local-raw material-based factories. While more sharing of scarce urban amenities and even outright deprivation seem inescapable for some time to come, there is a case for augmenting and distributing more urban employment opportunities. Rural and Urban, agricultural and industrial, political lobbies should recognise the logic of complementarity of rural-urban, agricultural-industrial growth and employment as the obvious answer to the stability as well as economic and social growth of our country.

1.8 This may well constitute the task of urban development in the coming decades. First, stimulating the growth of a large number of growth centres or mandi towns linked to the network of larger national and regional markets, which will reduce the proportion of the population dependent on cultivation and enhance the proportion of settlements that will have the effective characteristics of urban nodes-densification of population, dominant secondary and tertiary sector working force, a realistic array of manufacturing, trade and commerce, transport and services, provision for expansion of non-agricultural enterprise, formal and technical education, social welfare, administrative and financial institutions, provision of energy, warehousing, and above all housing. These may not come up to modern urban standards but the aim should be quickening of economic enterprise, expansion of a wide spectrum of employment and skills, accessibility to wider networks, with provision for establishing better civic services and condi-

tions as opportunities arise. Even if desirable urban amenities are not available and will elude us for a long time, the fact remains that India's cities and towns, as in all other climes and times, are the cradle of all creative enterprise and the home of all cultural, scientific, industrial, and technological progress and strength.

The Shorter Term

1.9 In the short run, however, over the next two plan periods, at any rate, urgent attention and investment is necessary to enable the existing national, metropolitan and existing regional state and district urban nodes to receive the urbanward migration that will continue to take place. It is important to recognise that not a single metropolitan city—not even Bombay or Calcutta if one examines them closely—not to speak of 200 odd 1 lakh urban nodes—has yet started manifesting diseconomies of scale. Density of all kinds still provides hospitality to every kind of enterprise in both formal and informal secondary and tertiary sectors. With wisely conceived schemes of reconstruction and redensification of city cores and peripheries they will continue to thrive indefinitely. Here, too, as in everything else in our country, equity is of the essence in our plans and men and women must have shelter and the minimum amenities of life. Connecting facilities should be made available for useful productive work, should it prove impossible in certain cities to house low income workers close to their place of work.

1.10 The magnitude of the task in the next two Plan periods will appear from the fact that the number of metropolitan cities (1 million plus) will grow from 12 in 1981 to at least 20 in 1991 ; of cities of 1 lakh to 1 million from 204 to at least 300 ; of class II towns from 270 to 350. The population in million plus cities will grow from 42 million to about 65 million, of class I cities from 52 to 85 million; of class II towns from 18 to 27 million (many class II towns will graduate to class I in the current decade). These projections have been made on the basis of past trends and known historical patterns of urbanisation. Suitable policy and appropriate programme intervening can alter some of these magnitudes at the margin, particularly in some regions which need a more beneficent network and spatial distribution of population.

1.11 Taking an across the board proportion of the working force at 30 percent of the total population, the growth in working force in urban areas alone will be 30 percent of 70 million or 21 million. These are daunting figures—as every absolute figure is in this country—but, given the will, the task may not prove insuperable if fancy frills are eschewed and consideration of material and human capital growth are kept in the forefront along with equity. Scarcity will have to be shared.

1.12 Adequate housing for the backlog and the additional 70 million may prove difficult but not insuperable given the right policies. Here to equity and careful husbanding of new and old housing stock can be made to play a very benign role. Besides, the magnitude of the task varies from one zone to another in India and a variety of innovative practices tailored to each Zone's particular problems and requirements and ecological preferences for house designs and building materials will be called for. It is also important to decide upon questions of strategy : whether centralised sewerage and sanitation, water supply, etc. should be undertaken for a city as a whole or a city should be divided in to clearly

demarcated neighbourhoods and have decentralised smaller subsystems to be integrated when times and finances are more propitious. The latter may cost a fraction more than centralised systems but may prove to be more economical to maintain and quicker to set up. These general considerations about the direction of overall development in India have guided this Task Force in its approach to urban development in India. The report offers a systematic assessment of the current urban situation in India ; a realistic forecast of what may be expected in terms of urbanisation upto the year 2000 ; and a suggested reorientation of urban policy in the light of these findings.

II. URBANISATION IN INDIA : THE RECORD

2.1 *Introduction*

The results of the 1981 Census indicates that the urban population of India is now about 160 million. Although this number implies that the urban population is still less than a quarter of the total population in the country, the absolute magnitude is so large that it warrants a fresh and close look at the existing policies concerned with housing and urban development. Indeed, since the level of urbanisation is still less than a quarter, it is important to realise that the volume of people living in cities will continue to increase in the foreseeable future. Hence policies have to be designed such that the continuing needs of urbanisation are met. While it is clear that agriculture and rural development will, and should, continue to command priority attention in planning, the size of the urban problem is now such that it can no longer be left to chance while hoping for the best.

2.2 The key fact that must be faced is that urbanisation is going to continue apace in India in the foreseeable future. It is going to place heavier demands on government for the provision of a host of necessary urban public services. The administrative and fiscal problems that arise from such demands will not be solved by wishing that cities would grow less quickly though, no doubt, some method of curtailing city growth might succeed temporarily. Yet, ever since the III Plan this is exactly what we have been wishing despite all the evidence available which indicates that most cities and towns have been growing uniformly at rates varying between three to four percent a year. There have been cities which have grown faster such as Delhi, Bangalore, Bhubaneswar, Bhopal, Durgapur, Bhilai, etc., but these have almost always been cities with massive public investments like the steel towns and the various state capitals. There have also been some others such as Faridabad, near (Delhi) and Surat, in Gujarat, which have also grown very fast, thanks again to investment on high industrial growth. "Decongestion" of cities and industrial dispersal have been mentioned as an objective in all the plans since at least the III Plan document. It is, therefore, important now, after 30 years of planned development, to make a systematic review of urbanisation policy.

2.3 Urbanisation is a determinant as well as a consequence of economic development in general. It is a natural consequence of economic changes that take place as a country develops. Certain activities are better performed in, indeed require, certain densities in agglomerations of people while others do not. The location of activities has therefore to be seen in the total context of activities existing in a country and their likely development in the future.

2.4 In attempting to understand why certain activities locate in urban areas and others do not, it is necessary to look into the nature of different kinds of economic activities. The distinguishing characteristic of urban areas is the existence of concentrations of people and activities in relatively

small areas. This means activities which can substitute other inputs, mainly capital, for land are likely to concentrate in space. Technically, high elasticities of substitution between land and non-land inputs would lead to urban concentration. Thus, although farm mechanisation and irrigation does enable greater land/non-land substitution in agriculture, the potential for such substitution is severely limited by technology. But service activities based on offices have high substitution elasticities. Large modern industries, particularly continuous process industries, have lower elasticities than small batch production industries. Thus, office activities will and do tend to concentrate heavily in central cities while large modern industries with inescapable demand for land for optimum processing layout tend to locate on peripheries of cities or in new cities where land is available at comparatively low value.

2.5 But high land/non-land substitution elasticities are not by themselves enough to produce urban concentrations. It is the existence of other scale economies—both manufacturing and services—which also contributes to concentration. When there are scale economies in a few activities, the multiplier effect of those activities would produce a concentration of other activities which are necessary for their functioning. The exigency of transportation costs of labour, raw materials, and finished products necessitates the location of complementary activities in close proximity to the industries or services which exhibit scale economies. It is these factors that make it more economical and profitable for small and even artisanal industries both in the formal and informal sectors, to thrive more in densely populated cities than, as is often fondly imagined, in smaller cities or towns. Hence, it is the combined effect of scale economies, transportation costs and relatively high substitution elasticities between land/non-land inputs in non-agricultural activities which produces urban concentrations. It is this process that contributes to the transformation of a largely agricultural to a non-agricultural economy.

2.6 As income rises there is a general shift in demand from food goods to non-food goods. In a country as poor as India this effect is still somewhat muted because for the poorer half of the population small increases in income would not appreciably lower the proportion of their incomes spent on food. However, according to the National Sample Survey the decline in proportion of consumption expenditure spent on food begins at about the 20th percentile. In other words, even for the very poor Engel demand effects are noticeable. Hence, as per capita income rises the increase in the proportionate demand for non-food goods accelerates. Consequently, the demand for labour for non-agricultural activities increases and this increased demand for labour stimulates urbanisation. The whole process has invariably been triggered in modern history by an initial increase in agricultural productivity. Increasing investible rural incomes are therefore likely to accelerate urbanisation.

2.7 The association between per capita incomes and levels of urbanisation is apparent even on rough scrutiny. Over 75 per cent of the variance between levels of urbanisation observed for the 110—120 countries for which data are readily available is explained merely by the use of per capita income differences between these countries.¹ What is interesting is that India lies quite close to the regression line : hence the level of urbanisation in India

¹See Technical Appendix I for such an estimation.

can be regarded as being quite consistent with the experience of other countries in the world. What is even more interesting is that the different states of India with different levels of per capita income fall close to those areas of urbanisation levels that accommodate other countries with equivalent per capita incomes.

2.8 It must be made unequivocally clear that India is not faced with an "urban explosion" as compared with trends in the rest of the world. In 30 years, its level of urbanisation has increased from about 17 per cent in 1951 to only about 23.7 per cent in 1981. Consistent with its low per capita income, India's level of urbanisation is about 90th in rank : there are only about 30 countries with levels of urbanisation lower than ours. Moreover, the rate of growth of urban population in India is also among the lower rates of growth in the world. This is in woeful contrast to India's overall industrial, cultural, scientific and technological might among the nations of the world, and is indication of the kind of feet of clay on which this colossus stands.

2.9 Clearly, there is no ground for complacency although, in absolute terms, India's urban population increased by about 50 million people over the last decade. This increase itself is larger than the total urban population in all countries except China, The Soviet Union, The United States of America, Japan and Brazil. Indeed, it is likely that India's urban population will be greater than that in all countries except China by 1985. Still the urban ratio is not good enough for India's legitimate future. This prognosis along with the absolute magnitude of India's urban population implies that policies toward urban development need to be reconsidered urgently.

The Record since 1901

2.10 Table 2.1 gives the record since 1901. India's urban ratio was relatively static upto 1921. Since 1921 the level of urbanisation has slowly¹ inched up from about 11.3 per cent of total population to 23.7 percent in 1981. During the same time, however, because of India's large population base, the urban population however in absolute terms has increased about six-fold. In the last decade, in particular, the increase has been particularly large, about 50 million people.

2.11 One of the problems in the interpretation of data related to urbanisation is that the growth of urban population as revealed in any census is composed of three distinct components. First is the natural growth of population already residing in urban areas. Second is the reclassification as urban areas of settlement hitherto classified as rural areas and vice versa. This happens in two ways. Large towns and cities extend their boundaries to include villages. Secondly, with population growth, as large villages grow and acquire "urban characteristics" they get reclassified as towns. Some areas injudiciously classified urban in one census are often declassified in the next. It is important to disaggregate these three components in order to understand the process underlying

¹The gradual nature of this growth may be gauged from the fact that China has experienced a similar change from about 11 per cent to over 20 per cent urbanisation in just the last 30 years.

urbanization i.e. rises in the proportion of population classified as urban. The Indian Census now has a relatively strict definition of places classified as urban areas.

2.12 The key ideas underlying the concept "urban" are (i) discernible urban attributes, (ii) high density of population and (iii) the dominance of non-agricultural pursuits. The census combines these two ideas and settlements are classified as urban areas if either

(a) they have a municipality, corporation, cantonment board, notified town areas committee, etc.

or

(b) they have (i) a minimum population of 5000 and (ii) a density of at least 400 people per sq. km. and (iii) at least 75 percent of the male labour force is in non-agriculture.

2.13 A certain arbitrariness arises as a result of definition (a) since that is subject to administrative as well as political vagaries. Definitional problems arise at the margin but it is important to keep them in mind in the interpretation of data—especially at the regional level.

2.14 Urbanisation can be measured in a number of different ways. The first is to examine changes in the level of urbanisation i.e. changes in the proportion of population living in urban areas. A second measure is the "urban-rural growth differential" (URGD). This is merely the difference between the rates of annual population growth between urban and rural areas. Since urban and rural natural population growth rates have not differed widely upto now, this measure gives a good sense of the magnitude of the rural-urban transformation that is taking place. A third measure of urbanisation is the share of net migration in the total growth in urban population. This, of course, is a direct measure of the transfer of population from rural to urban areas. The fourth measure is the growth of urban population itself.

2.15 A problem generic in any interpretation of urbanisation trends is that urban population growth rates are usually computed between two quantities that have somewhat different bases at two census points. To illustrate: the urban population of India in 1971 resided in 2531 towns while that for 1981 was in 3245 towns. Thus the base for 1981 is different from that in 1971. Similarly, the growth of big cities between two points of time often incorporates the addition due to extension of boundaries. Although in Table 1.1 we have attempted to distinguish increases in urban population as a result of population increase in already existing towns and that which result from additions of new towns or extensions of boundaries, the result has not been entirely satisfactory. For one thing, population of areas classified in a previous census but declassified in the next have not been subtracted, although the error would be small. For another, we do not yet possess the information for 1981 by means of which we could have computed on city size being kept constant—either within the earlier boundaries or within the new boundaries.

2.16 A glance at the different indices given in Table 2.1 indicates that the pace of urbanisation was steady until about 1951. It decreased in the 1951--1961 decade but the latest census shows an acceleration once again. Although the

Table 2.1

Growth of Urban Population in India¹

1901—1981

Census Year	² No. of towns	Total urban population (in million)	Popula- tion in towns above 20,000 (in million)	³ Level of urbani- sation	Annual growth rate of total urban popula- tion (% per year)	Annual growth rate of rural popu- lation (% per year)	URGD (col. 6 - col. 7)	Annual Growth rate of popu- lation in towns above 20,000 (% per year)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1901 .	⁴ 1834	25.6	13.5	11.0	..	..	..	..
1911 .	1776	25.6	13.8	10.4	0.0	0.61	-0.61	0.22
1921 .	1920	27.7	15.5	11.3	0.79	-0.18	0.97	1.16
1931 .	2049	33.0	19.6	12.2	1.77	0.94	0.03	2.37
1941 .	2210	43.6	28.7	14.1	2.82	1.11	1.71	3.90
1951 .	2044	61.6	43.2	17.6	3.52	0.82	2.70	4.17
1961 .	2330	77.6	61.4	18.3	2.34	1.88	0.46	3.58
1971 .	2531	107.0	89.6	20.2	3.26	1.97	1.29	3.85
1981 .	3245	156.0	134.9	23.7	3.86	1.75	2.11	4.18

Source : Census of India 1981—Provisional Population Total Series I—Paper 2 of 1981

- Notes :
1. Excluding Assam and Jammu & Kashmir.
 2. Constituent towns of urban agglomerations are not counted as separate units
 3. Proportion of urban to total population.
 4. Urban-rural growth differential.

picutre revealed by the different measures is broadly similar, there are some differences between the measures that are worthy of note. Because of the larger variation in the rate of growth of rural population between the decades, the URGD measure (column 8) also shows large variations between decades. According to this measure the pace of urbanisation was higher in the 1941 to 1951 decade than in all the others. The acceleration in urbanisation that has occurred in the past decade is also brought out much more sharply by this measure :2.11 for 1971-81 as compared with 1.29 in 1961—71 and 0.46 in 1951—1961.

2.17 The slowing down of urbanisation during 1951--61 has sometimes been explained in terms of the declassification of about 800 towns in 1961 as a result of a stricter application of the criterion for urban places.¹ Indeed it is only since the 1961 census that the definition of urban areas has been systematised and made uniform across all states, although as we have already mentioned, an element of arbitrariness has lingered. This arbitrariness is particularly noticeable in the classification of towns at the lower end of the scale since at this level the distinction between village and town would necessarily involve judgment and discretion even in applying the more rigorous definition of urbanisation. Since the urban character of bigger towns is more easily recognisable, classification problems are not likely to be as important for them. Hence, column 9 in Table 2.1 recomputes the growth rate of urban population in towns of over 20,000 population, the norm sometimes taken for international comparisons.

2.18 The picture is again broadly similar to that of the usual definition except that the rates of change are somewhat higher. Two points stand out. First, the deceleration in the 1951--61 decade remains. It was thus not a purely declassification problem but something real. Second, the rate of change in the 1931 to 1941 period was similar to that in 1961--1971 and that in 1941--1951 to 1971--1981. It is reassuring to observe that the broad pattern of change is not altered drastically by adopting a different definition.

2.19 Another feature which stands out from Table 2.1 is the very stable structure of settlements. While total urban population increased six-fold between 1901 and 1981, the number of settlements increased by only 80 percent. Thus most of the growth was more due to the growth of existing towns at every level than to the addition of new towns. The majority of settlements now classified as towns have exhibited urban characteristics for a very long time. There were, for example, 3200 towns and 120 cities in India as early as 1586³ which is quite similar to the number now. The majority of regions in India have had settled cultivation for a very long time. The spatial distribution and number of settlements therefore reflects a long and stable central plan network. With the low growth in population until the earlier part of this century, the majority of settlements had remained at the same size for long periods of time until recently. The function of most small towns is essentially that of servicing the rural surroundings as market and service centres. Thus, their number and spatial distribution reflects the magnitude or rather long duration stagnation of demand for their services from the surrounding areas. There is then a hierarchy of settlements in each region and sub-region and it appears that this hierarchy has remained relatively stagnant miniscule towns appearing and disappearing at the margin from time to time.

¹But about 500 towns were added at the same time which had not been classified as towns earlier.

²That this could make a significant difference is evident from the fact that in 1971 there were as many as 55 million people residing in settlements classified as rural but with populations greater than 5000—a figure comprising about half the total urban population in the country in 1971. Of these, about 22 million lived in 1358 villages with population greater than 10,000 (15 million in Kerala alone) and the rest in about 5000 villages in the 5000-10000 size range.

³Moonis Raza et. al. "India : Urbanization and National Development". in M. Honjo (ed.) *Urbanization and Regional Development*. Singapore : Maruzen Books 1982,

Furthermore, despite this long settlement history, there are vast areas in the country which are devoid of urban settlements of any size leading to the extremely low levels of urbanisation of 5-10 percent in these regions. In such areas, where the distribution of existing towns is sparse, a large number of new towns can be expected to appear and, indeed encouraged to do so in the next few decades.

The Size Distribution of Towns and Cities

2.20 There is a widespread erroneous belief that large towns and cities have been growing much faster than smaller cities and towns in India and that the latter have suffered and even declined as a result (see Table 2.2). This is simply not true. What is true is the proportion of total urban population which lives in cities and towns above any cut off point continues to increase because of the relatively stable structure of the Indian settlement pattern. Thus most of the urban growth takes place by accretion to existing towns and only a small portion by the reclassification of villages into towns and by the emergence of new towns. Large towns and cities are not as a rule growing any faster than small towns in general, although there is naturally a great variety of growth experience between cities and regions. The belief about faster growth of larger cities persists because tabulations are usually based not on individual cities but on size classes, which does not take into account intercensal movement of towns between one class range to another.

2.21 *Table 2.2* is an example of the kind of table that is usually used to show that larger cities are growing faster than smaller towns. The number of cities in each size class changes between censuses. Naturally, in the highest size class (Class I cities), no cities devolve out of it while many graduate into it. This feeds an illusion as if cities in the higher size classes are growing very fast. For example, the growth rate computed for Class I cities is between the population of 145 cities in 1971 and the population of 216 cities in 1981. These are in effect non-comparable bases. This applies to lower size classes as well as on account of intercensal promotions from below. But additions to the lower size classes involve smaller magnitudes of population than in the upper ones. It has also to be borne in mind that the faster growing towns graduate more quickly than slow growing ones.

2.22. *Tables 2.3 and 2.4* give the deflated tabulation that should be used in comparing the real growth experience of different sized cities and towns. *Table 2.3* takes towns according to their classification in 1971 and computes growth rates by comparing the total population of towns in each class in 1971 with the total population of the *same towns* in 1981 irrespective of their classification in the 1981 Census. (All towns in Assam and Jammu & Kashmir have been excluded from these tabulations since they were not enumerated at the same time as the rest of the country. Assam is yet to be enumerated).

Table 2.2

Distribution and Growth of Urban Population by Size classes in India¹

1961—1981

Town Classification	Per cent popula- tion in size class ² 1961	Per cent popula- tion in size class ³ 1971	Per cent popula- tion in size class ³ 1981	Growth rate 1961-71 per cent per year	1971-81 per cent per year
(1)	(2)	(3)	(4)	(5)	(6)
Class I (1 lakh+)	50.8 (102)	56.2 (145)	60.4 (216)	4.32	4.60
Class II (50,000 to 100,000)	11.0 (129)	11.2 (178)	11.6 (270)	3.49	4.22
Class III (20,000 to 50,000)	17.4 (449)	16.3 (570)	14.4 (739)	2.60	2.53
Class IV (10,000 to 20,000)	13.0 (732)	11.2 (847)	9.5 (1048)	1.74	2.10
Class V (5,000 to 10,000)	7.0 (739)	4.6 (641)	3.6 (742)	-1.09	1.45
Class VI (less than 5,000)	0.8 (179)	0.5 ¹ (150)	0.5 (230)	-2.18	4.86
Total:—	100.0 (2330)	100.0 (2531)	100.0 (3245)	3.27	3.86
Total Urban Population (Million)	77.6	107.0	156.2		

Source : Census of India 1981—Provisional Population Totals Series I—Paper 2 of 1981.

Notes : 1. Excluding Assam and Jammu & Kashmir.

2. Constituent towns of urban agglomerations are not counted as separate units.

3. Figures in brackets are the number of towns in each size class.

Table 2.3

Annual Growth Rate of Urban Population by Size of Town
1971—1981

Size Class	No. of towns 1971	Total Population 1971 ⁷ (in thousands)	Total Population 1981 ⁸ (in thousand)	Growth Rate ⁹ Per cent per year	Per cent over decade
Class I (1 lakh and above)	145 ¹	60,122	85,801	3.62	42.7
Class II (50,000 to 100,000)	178 ²	12,030	16,874	3.44	40.3
Class III (20,000 to 50,000)	560 ³	17,170	23,712	3.28	38.1
Class IV (10,000 to 20,000)	818 ⁴	11,656	16,107	3.29	38.2
Class V (5,000 to 10,000)	596 ⁵	4,300	6,264	3.83	45.6
Total:—	2297	105,278	148,758	3.52	41.3

- Notes:
- ¹ Excluding Srinagar, Gauhati and Jammu (Total 1971 Population 0.78 million).
 - ² Excluding Dibrugarh, Jorhat, Nowgong, Tinsukia and Silchar (Total 1971 Population 0.32 million).
 - ³ Excluding 22 towns, 9 in Assam, 3 in Jammu and Kashmir, 15 in Kerala and 1 in Punjab (Total 1971 population 0.63 million).
 - ⁴ Excluding 56 towns, 24 in Assam, 3 in Jammu and Kashmir, 15 in Kerala, 5 in Tamil Nadu, 3 in Karnataka, 3 in Maharashtra and 1 each in Haryana, Bihar and Andhra Pradesh.
 - ⁵ Excluding 83 towns, 23 in Assam, 15 in Jammu and Kashmir, 7 in Kerala, 6 in Gujarat, 4 in Maharashtra, 3 in West Bengal, 6 in Tamil Nadu, 3 in Madhya Pradesh, 3 in Karnataka, 2 in Uttar Pradesh and 1 each in Andhra Pradesh, Orissa and Punjab and Haryana.
 - ⁶ The Growth rates are calculated by comparing the total population of towns in each size class according to their classification in the 1971 Census as compared with the total population in the 1981 Census e.g., the growth rate of 3.62 per cent per year for Class I towns in 1971 refers to the growth between 1971 and 1981 of the 145 towns classified as Class I in 1971.
 - ⁷ Source:—Government of India: Census of India—General Population Tables 1971—Series I, Part II New Delhi, 1975.
 - ⁸ Government of India : Census of India — Provisional Population Tables — Paper 2 of 1981, New Delhi, 1981.
 - ⁹ The various towns excluded in class III, IV and V were those that could not be traced in the 1981 Census. These missing towns are either declassified or amalgamated into larger units. These are listed in Appendix 1.1

2.23. Table 2.3 gives a picture quite different from that in Table 2.2. While Class I cities *have* grown somewhat faster than small towns, the differences are not anywhere as large as Table 2.2 would have us believe. Oddly enough, Class V towns show the highest rate of growth on average. Similar results were found in an earlier study by M.K. Jain (1977)¹ which showed that there was no appreciable difference between the growth rates of different sized cities between 1951 and 1961 and between 1961 and 1971. There has, however, been an acceleration in the overall intercensal rate of growth of population in each size class since 1951.

2.24. Since about 60 percent of the total urban population now resides in Class I cities, it is useful to disaggregate this class further. Table 2.4 gives the results for 1961—71 and 1971—81. Once again there is no striking differential pattern of growth according to disaggregated size classes. It cannot be said that the metropolitan cities (million-plus cities) have been growing much faster than the smaller cities, nor vice versa. Indeed, between 1971 and 1981 the fastest growth was recorded by the group of 33 cities in the 250,000 to 500,000 population range. Moreover, it is of interest to note that the share of million plus cities in the total population of Class I cities has not increased appreciably since 1951. The proportions have been :—

	per cent
1951	42·7
1961	45·3
1971	45·6
1981	44·6

Even in the matter of urban entities, while the total number of class I cities has increased from 74 to 216 (excluding Assam and Jammu & Kashmir) over this period, an increase of almost 200 percent, the number, of million plus cities has increased from 5 to 12, an increase of only 140 per cent. It is therefore incorrect to say that the Indian settlement structure is becoming top heavy : or that metropolitan cities are growing much faster than others. This is not very different from the experience of the world as a whole.²

¹. M.K. Jain, "Interstate Variations in the Trends of Urbanisation in India 1951—71", Bombay : International Institute of Population Studies, 1977.

². See Samuel Preston "Urban Growth in Developing Countries : A Demographic Reappraisal" *Population and Development Review* Vol. 5 No.2, June 1979.
21 W.H—9

Table 2.4

Pattern of Growth of Class I Cities
1961—1981

Category	1961-71 ¹				1971-81 ²			
	No. of towns 1961	Population 1961 (000)	Population 1971	Annual rate of growth	No. of towns	Population 1971 (000)	Population 1981	Annual rate of growth
4 Million+	2 ³	9,887	13,001	2.82	2 ³	13,001	17,392	2.95
1—4 million	5 ⁴	7,983	12,006	4.14	7 ⁶	14,417	21,318	3.99
$\frac{1}{2}$ —1 million	5 ⁵	3,616	4,787	2.82	10 ⁷	6,679	8,919	2.93
250,000—500,000	21	7,378	10,256	3.35	33	12,022	17,858	4.04
100,000-250,000	71	10,772	15,490	3.71	93	14,003	20,314	3.79
Total:—	104	39,636	55,540	3.43	145	60,122	85,801	3.62

- Notes :
- ¹ Data for individual towns for 1961-71 taken from Ashish Bose India's Urbanisation 1901—2001 (1978).
 - ² Data from Government of India, Census of India 1981 — *Provisional Population Tables* Paper 2 of 1981, Government of India, Census of India 1971, Series I Part II A(I) *General Population Tables*, New Delhi 1975.
 - ³ Bombay and Calcutta.
 - ⁴ Delhi, Madras, Hyderabad, Ahmedabad, Bangalore.
 - ⁵ Kanpur, Poona, Nagpur, Lucknow, Agra.
 - ⁶ Delhi, Madras, Hyderabad, Ahmedabad, Bangalore, Kanpur, Poona.
 - ⁷ Nagpur, Lucknow, Coimbatore, Madurai, Jaipur, Agra, Varanasi, Indore, Jabalpur, Allahabad.

2.25. This, however, is not the whole picture, since these average growth rates are somewhat misleading. Table 2.5 tabulates the frequency distribution of towns and cities according to ranges of growth rate. It may be noted that there is a higher proportion of Class I cities in the higher growth ranges but that the distributions of towns in the other size classes are remarkably similar to one another. Although the differences between the distributions of the growth rates of towns in Classes II, III, IV and V are not statistically significant there is a tendency for a larger proportion of small towns to be slow growing. In fact the variances in the growth experience of the Class IV and Class V towns are somewhat higher. Thus, although on average there are no significant differences between the growth of large towns and cities, the frequency distributions reveal a tendency for larger towns and cities to grow somewhat faster. This needs further investigation. As mentioned earlier, at the lower end towns are more unstable and occupy a less important place in the settlement structure. Thus,

the variance of growth rates is much higher at the low end of the settlement side. Moreover, the slow growing towns are found to be concentrated in particular regions of the country, in particular, the densely populated but slow growing (in terms of population) states of Kerala and Tamil Nadu.

Table 2.5

Frequency distribution of Annual Growth Rates of towns and cities between 1971 and 1981

Annual rate of growth	Class I (%)	Class II (%)	Class III (%)	class IV (%)	Class V (%)	All Classes (%)
Less than 1% . . . .	..	3	7	7	8	6
1 to 2%	7	15	14	19	21	17
2 to 3%	30	33	33	32	32	32
3 to 4%	30	25	23	23	21	23
4 to 5%	19	16	13	11	7	11
5 to 7%	11	7	8	5	6	7
7 and above	3	2	3	3	5	3
Total	100	100	100	100	100	100
Total No. of towns in size class	145	178	569	818	594	2295

- Notes :
1. Classes according to 1971 Census classification.
 2. For details on towns omitted from the 1971 Census list because of non-availability of data in 1981. See Appendix A. 2.1. The number of towns omitted by size class are : Class I-3 cities, Class II-3 cities, Class II-5 towns, Class III-22 towns, Class IV-56 towns, Class V-83 towns.
 3. Constituent towns of urban agglomerations are not counted as separate units.

2.26. Since particular attention is usually given to the role of the largest metropolitan cities in the urbanisation process, it is of interest to examine the growth experience of the 6 largest cities (given in Table 2.6). The boundaries of large cities are extended as they grow from one census to another. 'Increases' are not large when the newly incorporated area was sparsely inhabited in the previous census year. They are large only when the new boundaries incorporate existing populous towns or rural settlements on the periphery. Table 2.6 shows that the experience has been a varied one and that no generalisation can be made for these cities taken as a group. It is only Delhi that has grown with a consistently high rate of growth over the three decades.

2.27. Despite the dislocation caused in Bengal at the time of partition and later in 1971 the rate of growth of Calcutta has been consistently low and about at par with the growth rate of the population of the country as a whole. The increase in growth rate in the last decade is illusory and has been caused mainly because of the inclusion of about 20 towns which were listed as separate entities in 1971. The corrected growth rate for Calcutta would be just over 2 per cent per year which is similar to previous decades.

Table 2.6

*The growth of large cities and their hinterland*¹

City	Population ('000)		Annual Growth Rates (% per year)			
	City ²	Hinterland	City			Hinterland
			1951-61	1961-71	1971-81	1971-81
Calcutta	9165	1377	2.26	2.05	2.69	3.04
Bombay	8277	1273	3.42	3.70	3.26	5.09
Delhi	5713	2073	5.08	4.45	4.59	5.83
Madras	4276	972	2.35	5.01	3.04	2.93
Bangalore	2913	1127	4.42	3.27	5.82	3.40
Hyderabad	2528	642	1.03	3.71	3.42	5.08

Notes : ¹ The Hinterland for each city is taken as all towns with 20,000 or more population in 1971 within roughly a 100 km. radius of the city measured as straight line distance. The details of the towns are given in Appendix A 2.2.

² 'City' refers to urban agglomeration.

Sources : 1. Census of India 1981 *Provisional Population Totals Series* 1—Paper 2 1981—New Delhi 1981,

2. Census of India 1971 *General Population Tables* 1971 Series I Part II-A(i) New Delhi, 1975.

2.28 The other striking feature of this table is that the rates of growth of the hinterlands of Delhi, Bombay, Calcutta and Hyderabad are consistently higher than that of the cities themselves. Furthermore, the total urban population of the hinterlands is usually a small proportion of the city's population, varying from about 15 per cent in the case of Calcutta and Bombay to about 40 percent for Bangalore. This implies that the capacities of these neighbouring towns to attract and absorb populations from the large cities is limited since their rates of growth are already high but their weight in population low.

2.29 In summary it should be clear from the evidence presented above that the record of growth of different size cities has been very stable over the different decades. Towns and cities of all sizes have been growing at similar rates since at least 1951 and there are no startling differences between large and small towns and cities. The main difference between 1971 and 1981 is that there has been a significant acceleration in the growth of all towns and cities. But the overall settlement pattern continues to be stable and well distributed.

The Regional Pattern of Urban Growth and Economic Development

2.30 Disaggregation, at least down to the state, and better still to sub-regional levels in the case of some of the larger states, will lay bare the trend and process of urbanisation in India. Variations between the states are surprisingly large not readily explicable at first sight. *Table 2.7* gives the growth rate of urbanisation in the major states (those with population greater than 10 million in 1971, except Assam, which has not been enumerated for the 1981 census, and Kerala). Kerala has not been included here because it posed particular problems in the definition of urban areas. For one thing, its overall population density was about 550 people per sq. km. in 1971, the rural density itself being about 480. Secondly, over 95 per cent of the rural population in Kerala lives in villages of over 5000 people. Hence almost all the settlements in Kerala would qualify for classification as urban settlements were it not for the additional requirement of 75 per cent of the male labour force being in non-agriculture.

2.31 The most industrialised states of Maharashtra, Gujarat and Tamil Nadu are now all over 30 per cent urbanised (according to the census definition). These states conform more to middle income countries with about 400 per

Table 2.7

*State-wise¹ Growth of Urban Population
1951—1981*

(Per cent per year)

State	All towns			Towns above 20,000 only		
	1951—61	1961—71	1971—81	1951—61	1961—71	1971—81
Andhra Pradesh	1.5	2.9	4.0	3.5	3.9	5.0
Bihar	4.1	3.7	4.4	4.8	4.1	5.4
Gujarat	1.8	3.5	3.5	3.6	3.6	4.2
Haryana	3.1	3.1	4.8	4.4	3.9	5.2
Karnataka	1.7	3.1	4.2	3.5	3.8	5.3
Madhya Pradesh	4.0	3.9	4.6	4.6	5.0	4.8
Maharashtra	2.0	3.5	3.4	3.6	4.0	3.8
Orissa	6.5	5.2	5.3	7.4	7.9	6.0
Punjab	2.6	2.3	3.7	3.9	2.6	4.1
Rajasthan	1.1	3.3	4.6	2.8	4.3	5.4
Tamil Nadu	2.1	3.3	2.5	6.1	4.3	2.9
Uttar Pradesh	0.9	2.7	4.9	2.9	2.9	3.9
West Bengal	3.1	2.5	2.8	3.3	2.7	3.1
India ²	2.33	3.26	3.85	3.59	3.85	4.18

Notes :¹ Including all States with total population greater than 10 million in 1971 but excluding Kerala and Assam.

² Including all States except Assam and Jammu and Kashmir

capita income in terms of the level of urbanisation. The industrial stagnation of Calcutta is reflected in the level of urbanisation in West Bengal since 1951. At the other end of the scale are Orissa (11.8%), Madhya Pradesh (20.3%) and Rajasthan (20.9%). There are only about 10 countries¹ in the world at the lowest per capita levels which have levels of urbanisation lower than 12 per cent. Thus, in terms of urbanisation levels, India's regions exhibit patterns spanning the whole range of about 50 countries with annual per capita incomes from about and 100 to \$ 400. The variation in levels of urbanisation² has, however, declined as measured by the co-efficient of variation, from about 0.45 in 1951, to 0.42 in 1961, 0.50 in 1971 to 0.34 in 1981. The acceleration in the least urbanised states along with the deceleration of the most urbanised ones has caused this major change in the last decade.

2.32 From table 2.7 it is evident that all the relatively poorer states (Andhra Pradesh, Bihar, Madhya Pradesh, Orissa and Uttar Pradesh³) have experienced rapid urban growth during 1971—81. Haryana alone among the richer states has experienced comparable growth. In fact, the old industrially developed states of West Bengal, Tamil Nadu and Maharashtra have the lowest rates. Naturally, absolute increases in urban population in these states continue to be large due to the higher initial levels. Columns 5—7 of Table 2.7 give comparable growth rates for urban population in towns above 20,000 only. While most of the observations made above are still valid, there are some changes that appear, significant at this cut-off point. The acceleration over decades is also less pronounced—although the rate of growth for each state is much higher. This confirms the claim that the Indian settlement structure is of long standing and is also stable at the state level and that our urbanisation is mostly by accretion to existing towns of all sizes with only small additions of new towns at the low end of the range. It may, however, be expected that in States such as Orissa, parts of Bihar, U.P. (particularly Eastern U.P.) and Madhya Pradesh (particularly Eastern Madhya Pradesh) where current urbanisation levels are low and towns are located sparsely, there is a greater potential for the emergence of new towns.

2.33 *Table A 2.4* documents the differences caused by the addition of new towns in the 1981 census. The states which have added a significant number of new towns are essentially Haryana, Madhya Pradesh, Rajasthan, Orissa and Uttar Pradesh. Many of these towns in U.P. should have been classified as such in 1971 (Premi and others, 1977). Thus the apparent large acceleration of urbanisation in U.P. is at least partly illusory though not entirely so. Taking the same towns as in 1971 the growth rate did increase from 2.7 per cent per year in 1961—71 to 3.1 per cent in 1971—81. Similarly, if only towns over 20,000 were considered the rate increased from 2.9 to 3.9 per cent a year. For Haryana, the corrected growth rate of 4.1 percent is still significantly higher than the 3.1 per cent for 1961—71. The conclusion then is that the definitional problems of towns in the 1981 census do make a difference to the recorded growth rates of 4 or 5 states showing a much larger increase but

¹ Including Bhutan, Nepal and Bangladesh within the Indian sub-continent.

² The coefficient of variation in the levels of urbanisation is taken for levels according to urban population in towns above 20,000.

³ This is documented below.

do not alter the overall pattern described from the growth rate of urban population, whether it is according to the usual definition or that for towns above 20,000 population. The population of the added towns, as a proportion of state urban population, was 6 per cent for Haryana, 16 per cent for U.P. and 9 per cent for Orissa. But at the All India level the difference made by these definitional issues diminishes. It is of further interest to tabulate the rates of growth of rural population (Table A 2.5). There have been significant declines in the rate of growth of rural population in the high agricultural productivity states of Haryana and Punjab but small increases have taken place in the low productivity states of Bihar, Rajasthan and U.P. There have, however, been declines in other poor states such as Orissa and Madhya Pradesh. Preliminary census results indicate that for the first time since the turn of the century, there may have been a perceptible decline in the proportion of labour force engaged in agriculture from 69.8 per cent in 1971 to 66.7 per cent in 1981. This is at least consistent with the decline in the overall rate of rural population growth. Increases in agricultural production are now coming mainly from productivity changes—only small increases in net cropped area are possible in the future. This indicates that the absorptive capacity of agriculture for continued increases in population and labour force is now declining. The acceleration in the rate of urbanisation and decline in rural population growth rates are even more evident from tabulation of the urban-rural growth differential (URGD) for different states. (These are documented in Table A. 1.6). Again it is only Tamil Nadu which shows a decline: there have been significant increases in all other states. The progress over the three decades is quite remarkable. There were as many as 5 states with negative URGD, only one with less than 1.0 and as many as 9 with over 2.0. The rural urban transformation and its acceleration in all the states therefore stands out with much greater clarity on the application of URGD.

2.34 It is interesting that the distribution of population growth rates for rural as well as urban areas has become more uniform between states over the same period. The coefficient of variation between states of rural population growth rates has declined from 0.36 for 1951—61 period to 0.17 for 1961—71 and 0.16 for 1971—81. The corresponding coefficients for urban population growth are 0.31, 0.31 and 0.20 respectively.¹ Furthermore, the pattern goes back to the 1941—51 decade as well. The coefficient of variation for rural population growth rates for that decade was about 0.49 and for urban population growth rates about 0.31 again. What is of great interest is that the variation in urban population growth rates has declined as well as in the past decade.

How can all these data be summarised? *Table 2.8* groups all the states into four categories. The variation in the experience of the four groups of states emerges quite forcefully. Thus, even in the case of richer states, two diametrically opposed patterns are revealed. In the old industrially and commercially developed states of Maharashtra and Gujarat the urban growth rate increased initially but tapered off with time while in the agriculturally progressive developed states of Punjab and Haryana, the opposite was experienced. Clearly different forces are at work in these states and more detailed analysis is required.

¹ These co-efficients of variation for urban population growth are calculated for the growth of towns above 20,000 only to avoid the variations due to low and definitional problems.

Table 2.8

Urban Growth in States during 1951--1981 A summary

Category of States	All Towns	Towns of Population above 20,000 only
(1)	(2)	(3)
I. States where the rate of growth of urban population has increased continuously since 1951-61.	Andhra, Karnataka, Rajasthan and Uttar Pradesh	Andhra, Karnataka and Rajasthan.
II. States where the rate increased between 1951-61 and 1961-71 but declined or remained constant thereafter.	Gujarat, Maharashtra and Tamil Nadu	Madhya Pradesh, Maharashtra and Orissa.
III. States where the rate declined or remained constant between 1951-61 and 1961-71 but increased thereafter.	Bihar, Haryana, Madhya Pradesh, Orissa, Punjab and West Bengal	Bihar, Haryana, Punjab Uttar Pradesh and West Bengal
IV. States where the rate of growth of urban population has increased continuously since 1951.	None	Tamil Nadu.

2.35 Having documented the record of urbanisation it is now necessary to look at different indices of economic development over the same period to reveal the concession between urbanisation and economic development.

2.36 Consistent economic data are difficult to obtain for 1951 onwards because of the reorganisation of States in 1956. The record since 1961 is therefore presented. Considerable controversy surrounds the magnitudes of per capita state product. Given a countrywide common market it is difficult to compute State domestic product. However, State Statistical Bureaus as well as the Central Statistical Office (C.S.O.) make annual estimates of the state domestic product (SDP). There are usually discrepancies between the two sets of estimates and the C.S.O. issues a set of consistent estimates with some lag. These are currently available for 1970-71 to 1975-76. More difficult still is a constant price series of SDP and no official series has been issued. The data used here are from a compilation of data by the Centre for Monitoring the Indian Economy, an independent organisation. While recognising that individual errors might exist in these data they are considered adequate for the purpose at hand: they do give a good picture of the magnitude and pattern of disparity in incomes between states and how this pattern has evolved over the past 20 years.

2.37 Table 2.9 gives estimates of per capita SDP at constant 1970-71 prices for 1961, 1971 and 1978-79, the latest available for a 'normal' year. The coefficient of variation (CV) for per capita income has moved from 0.23 in 1961 to 0.26 in 1971 to 0.33 in 1979. This is in the opposite direction from the C.V. for level of urbanisation which are 0.37, 0.34 and 0.29 for the same years respectively. The ratio of the per capita SDP of the richest to the poorest state was about 2 in 1961, 2.5 in 1971 and 3 in 1981. These are not high in comparison with the regional disparities existing in other countries of the world. But what is a matter of deep concern is the worsening of the disparity over time. This has been well appreciated in plan documents since at least the Fourth Five Year Plan. There is preferential allocation of funds to the poorer states and there is an elaborate system of incentives for industries to locate in the poorer regions of the country.

Table 2.9

Per capita State Domestic Product

States	Per Capita State NDP (Constant 1970-71 prices)		
	1961	1971	1981
(1)	(2)	(3)	(4)
1. Andhra Pradesh	518	586	678
2. Bihar	390	418	438
3. Gujarat	697	845	884
4. Haryana	627	932	1029
5. Karnataka	559	675	723
6. Kerala	471	636	569
7. Madhya Pradesh	472	489	463
8. Maharashtra	769	811	1008
9. Orissa	392	541	514
10. Punjab	760	1067	1308
11. Rajasthan	500	629	591
12. Tamil Nadu	571	616	682
13. Uttar Pradesh	457	493	524
14. West Bengal	758	729	765
Mean	558	676	727
Coefficient of Variation	0.23	0.26	0.33

Notes : 1. 1978-79 data.

Source : Centre for Monitoring the Indian Economy, *Basic Statistics Relating to the Indian Economy* Vol. II 1981,

2.38 *Table 2.10* tabulates data on the per capita value added in the factory sector and an index of agricultural productivity for each State. The latter has been defined as the total production of foodgrains per male agricultural labour.¹ For the per capita value added in the factory sector the C.V. has declined from 0.92 in 1961 to 0.67 in 1971 and 0.62 in 1978. The ratio of the highest to the the lowest was about 14 in 1961 and about 7 in 1971 and 1978. For agricultural productivity, on the other hand, there has been a continuous increase in disparity—C.V. increasing from 0.30 in 1961 to 0.59 in 1971 and 0.73 in 1981—and this is consistent with the increasing inter-state income disparity. It is clear then that the worsening disparity in state incomes has not been caused by the manufacturing factory sector—indeed there has been a strong opposite trend toward equalisation in this sector. The three poorest states in 1961 were Bihar, Orissa and Uttar Pradesh in terms of income. They also had along with Andhra Pradesh, Madhya Pradesh and Rajasthan, the lowest value added in the factory sector. The position has not changed much in 1981 and these three states remain among the bottom five. The rates of increase in the factory sector value added have, however, been higher in the poorer states. It is quite noticeable from the factory sector value added table

Table 2.10

Statewise Manufacturing and Agricultural Productivity
1961—1981

State	Value added in Factory Sector (Current Rs. per capita)			Agricultural Productivity ² (tons per person)		
	1961	1971	1981	1961 ²	1971 ³	1981 ⁴
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Andhra Pradesh	9	29	74	0.88	0.83	1.06
2. Bihar	14	31	57	0.71	0.69	0.67
3. Gujarat	52	108	245	0.59	0.94	0.85
4. Haryana . . . . .	..	70	169	..	2.77	2.91
5. Karnataka	14	62	107	0.82	1.06	1.13
6. Kerala	17	42	93	0.60	0.50	0.65
7. Madhya Pradesh	8	27	68	1.24	1.26	0.98
8. Maharashtra	69	167	324	0.92	0.65	1.17
9. Orissa	6	27	62	0.98	0.96	0.98
10. Punjab	4 ⁶	52	136	1.73 ⁶	3.07	4.36

¹ Only male agricultural Labour is used because of the well known definitional changes in the 1971 census, which has made the female agricultural labour data non-comparable

1	2	3	4	5	6	7
11. Rajasthan	5	26	56	1.10	1.44	1.05
12. Tamil Nadu	24	75	166	0.90	0.98	1.07
13. Uttar Pradesh	9	24	47	0.85	0.99	0.99
14. West Bengal	60	97	173	0.92	1.11	1.04
Mean	23	60	127	0.94	1.23	1.35
Coefficient of Variation	0.92	0.67	0.62	0.30	0.59	0.73

Source : Centre for Monitoring the Indian Economy (C.M.I.E) *Basic Statistics Relating to the Indian Economy Vol. II Bombay 1981.*

- Notes :
1. 1977-78 data.
 2. Average of 1959-60 to 1961-62.
 3. Average of 1970-71 and 1971-72.
 4. Average of 1978-79 to 1980-81.
 5. Defined as total Foodgrains output in the State divided by total male agricultural labour.
 6. Undivided Punjab.

that from a situation when the only substantial manufacturing was in Gujarat, Maharashtra, West Bengal and Tamil Nadu and located around their capital cities, there has been a considerable dispersion of industries by now.

2.39 Looking at the increase in disparity in agricultural productivity it is clear that the stagnation in agricultural productivity in the whole Eastern region is the main cause of the increasing inequality.

The composite picture that emerges is as follows. There has been a perceptible increase in interstate inequality as measured by per capita state domestic product. This has been caused largely by the stagnation in agricultural productivity in the Eastern, Central-Eastern and South-Eastern regions. There have been notable increases in factory production in all states and particularly so, in relative terms, in the hitherto backward states. This movement has mitigated somewhat the increasing interstate inequality but the favourable changes have not been large enough to counteract the adverse changes in agriculture. The combination of increased manufacturing production and agricultural stagnation in the poorer states is likely to have caused significant acceleration in urbanisation in the last decade. The data suggest that the absorptive power of agriculture has probably been stretched to its current technological limit in the sense that minimum per capita subsistence limits may have been reached. In the earlier periods, there was considerable scope for extensive increase in the area under cultivation. It was,

therefore, possible to accommodate the increase in population and consequently, agricultural labour by extension of cultivation to hitherto uncultivated lands. These possibilities have now been exhausted. Increases in agricultural production now can only take place by productivity changes i.e., technological change. The experience of Punjab and Haryana suggests that after the initial labour absorption and after income increases have taken place, and agriculture grown more technologically intensive, urbanisation is likely to accelerate afresh. Curiously enough, both agricultural stagnation and growth are likely, each in its own logic, to contribute towards further urbanisation in the country in the foreseeable future.

The Urban Rural Distribution of Income and Employment

2.40. The transformation of an economy from a poor mainly agricultural based state to modern economic growth essentially involves a structural shift towards the secondary and tertiary sectors in both output and employment. In India, although the per capita income growth has been relatively slow at 1 to 1.5 percent a year over the last three decades, the economy has undergone a remarkable structural change in terms of output. This has not yet been accompanied yet by a similar change in the sectoral shares of employment, however.

2.41 The share of agriculture in Net Domestic Product has declined from about 60 percent in 1950-51 to less than 40 percent now. At the same time, the percentage of labour force employed in agriculture has remained broadly constant at 67—70 percent. The share of mining and manufacturing has increased substantially from 10.7 percent in 1950-51 to 16.4 percent in 1980-81, and that of the tertiary sector from about 29 percent to 36 percent. The declining share of agriculture has, therefore, had to provide for the livelihood of a constant share of the labour force and of population—in absolute terms an increasing number of people. The increase in income share of the other sectors has been substantial while the share of labour force has remained broadly constant. This must imply that the per capita increases in income must have been significantly higher in these sectors than in agriculture.

2.42 Even with almost no change in the share of labour force in agriculture, the rural share of population has decreased from about 82 percent to about 76 percent. This suggests that the urbanisation that has taken place in terms of employment has mainly been a transfer of rural based secondary and tertiary sector activities to urban areas of all sizes. Some of this has no doubt been because of reclassification of the larger villages into towns but as has been shown earlier this has not been large in terms of share in urban population and hence in urban employment. There has, as yet, been no large scale transfer of employment from agriculture to non-agricultural pursuits. It is only in the current census that a decrease is observed in the proportion of labour force employed in agriculture from 70 to 67 per cent.

2.43 One of the important consequences of urbanisation being slow while the economy undergoes this kind of structural change is that the disparities in per capita incomes between urban and rural areas tend to increase. Unfortunately the National Income Accounts do not usually distinguish the origin or

accrual of income by urban and rural areas. This is naturally difficult to do in principle because of the large volume of cross rural/urban transactions. Because of persistent demands for these estimates for policy purposes, the Central Statistical Organisation (C.S.O.) has recently published a set of estimates of rural and urban income for 1970-71¹. but these are limited to income originating in these areas i.e. to domestic product in rural and urban areas. These estimates are arrived at through indirect methods and should therefore be regarded as approximate. Subsequently, the C.S.O. has also pieced together information from various research studies and published estimates for 1950-51 and 1960-61 as well².

2.44 A few explanatory remarks are in order before presenting the estimates. It has not yet been possible to make estimates of income accruing or personal disposable incomes for rural and urban areas. Since remittances go predominantly from urban to rural areas, the urban/rural differential in accrued incomes is likely to be less than that in income originating. The methodology used for estimating the urban/rural net domestic product is essentially that of estimating the respective wage/earnings/value added data per worker in different sectors from different sources and then using the number of workers in each sector to arrive at the net domestic product.

2.45 *Table 2.11* gives the trend of urban and rural shares in area, population and labour force from 1950-51 to 1970-71. The area occupied by urban areas was only about 1.4 per cent of the total area of the country. The ratio of urban to rural per capita Net Domestic Product increased from about 1.8 to about 2.4 from 1950-51 to 1970-71. The ratio of per capita Household Expenditure, however, increased from 1.37 in 1960-61 to only about 1.5 in 1970-71 according to the National Sample Survey. Lest these figures be viewed with excessive alarm a few caveats are in order. First, as stated earlier, these figures are only rough approximations. Second, the real difference between urban and rural per capita incomes would be lower because of urban/rural price differences. Third, the N.D.P. figures obviously include taxes—this affects the estimate for urban areas much more because agricultural income is not taxable. Fourth, the impact of urban-rural remittances is not accounted for. The ratio of 2.4 for 1970-71 should, therefore not be regarded as an indication of 'real' income or welfare differences between urban and rural areas. The direction of change that is indicated over the period, however, is probably a reasonable accurate indicator of the trend.

¹C.S.O. *National Accounts Statistics January 1981*

²C.S.O. *Monthly Abstract of Statistics July 1981 PP. S6-S10.*

Table 2.11

Trend of Urban/Rural Shares

Item	1950-51	1960-61	1970-71
1. <i>Percentage Rural Share</i>			
Area	N.A.	98.8	98.6
Population	82.7	82.0	80.1
Workers	84.9	84.9	82.3
2. <i>Per Capita</i>			
<i>Net Domestic Product at factor cost</i>			
<i>(Rs. current prices)</i>			
Total	267	323	638
R ural	232	261	469
Urban	424	608	1201
3. <i>Differential Ratios (Urban/Rural)</i>			
Per Capita Net Domestic Product	1.83	2.33	2.40
per capita household consumer expenditure	N.A.	1.37	1.50

Source: C.S.O. Monthly Abstract of Statistics, July 81, p. 5-7.

2.46 Table 2.12 gives the movement of sectoral shares in NDP from 1950-51 to 1980-81. Also given are estimates of the rural share in sector NDP upto 1970-71. The first part of the table clearly shows the declining share of agriculture to about 40 per cent of NDP now. Concurrently, as might be expected, although the rural share in agriculture has remained roughly constant, the rural share in secondary and tertiary activities has been declining—particularly in mining and manufacturing. It is, therefore, the combined effect of the declining share of agriculture and the urbanisation of non-agricultural activities which has accentuated the urban rural income disparities. At the same time, the rate of urbanisation has been relatively slow so the increasing income share of urban areas has not been matched with major proportional increases in the urban share of either the labour force or population. It would seem that labour intensive village based manufacturing is being replaced somewhat by more capital intensive urban based manufacturing. Table 2.13 attempts to estimate the urban and rural shares of income for 1980-81. For want of better information, it is assumed, optimistically, that the rural share of income in the secondary and tertiary sectors has not declined further. Hence, the C.S.O. estimates of rural shares in sectoral N.D.P. for 1970-71 are assumed to hold constant for the whole 1970—1981 period. With this assumption, and using population information from the 1981 Census, the urban rural per capita N.D.P. ratio has increased to about 2.6 from about 2.4 in 1970-71. Thus the ratio of urban per capita N.D.P. to rural per capita N.D.P. has increased regularly from about 1.8 in 1950-51 to 2.3 in 1960-61, 2.4 in 1970-71 and at least 2.6 in 1980-81. As is shown in the next Chapter this increasing trend in dis-

parity is expected to continue at least until the end of the century, unless much greater transformation takes place in the structure of employment in the country.

2.47 The prognosis in terms of urban employment is not bright if the experience of the last decade is any indicator. The urban employment scene over the 1970s was marked by a rising labour force and by growing unemployment. Between 1972-73 and 1977-78, the labour force grew from about 40 million to 52 million, and the usual status unemployed from 2 million to 3.6 million. The incidence of unemployment rose from 5 percent to 6.9 percent. In fact, there are indications that urban unemployment rates have been rising since the 1960s. In 1977-78 the large majority of these unemployed (about 70 percent) were in the 15-24 age group and only 10 percent were illiterate. Long term unemployment was high mainly among the young educated portion of the labour force. There was little unemployment in the 30+ age group. There is also

Table 2.12

Movement of Sectoral Shares--1950-51 to 1980-81

Sector	1950-51	1960-61	1970-71	1980-81
	(Percentage share of Sectors in NDP)			
Agriculture	60.5	55.7	49.0	41.5
Mining and Manufacturing	10.7	12.9	14.6	16.4
Tertiary	28.8	31.4	36.4	42.1
	(% ² If sector/NDP originating in rural areas)			
<i>Share of rural areas in sector</i>				
Agriculture	96.5	97.7	96.4	
Mining and Manufacturing	56.2	38.6	32.3	
Tertiary	36.1	35.3	28.8	

Notes :— ¹NDP at factor cost at 1970-71 prices 1950-51 to 1980-81.

²Source: CSO Monthly Abstract of Statistics, July, 1981, P. S-8.

Table 2.13

Rural share in Net Domestic Product
(1970-71 to 1980-81)

(Rs. crores)

Sectors	1970-71		1980-81
	% NDP Rural	(Current Prices)	Current Prices
1	2	3	4
1. Agriculture	94.7	16080	3788
2. Mining	60.9	199	897

1	2	3	4
3. Manufacturing	25.4	1173	4523
4. Electricity, gas and Water Supply	39.9	127	601
5. Construction	43.2	800	2206
6. Transport	22.3	351	1255
7. Services	32.4	2867	10564
Rural NDP		21597	57932
Total NDP		34519	104132
<i>Rural NDP</i>			
Total NDP (Percent)		62.6	55.6
Rural Population (Million)		439	524
Urban Population (Million)		109	160
<i>NDP Per capital (Rs.)</i>			
Urban		1186	2888
Rural		492	1106
Urban/Rural		2.40	2.61

Note:— 1. Rural NDP in each sector has been assumed to be the same proportion of the total as in 1970-71.

evidence that unemployment rates in urban India are generally higher, lower the monthly per capita expenditure level of households. Thus poverty and unemployment are directly related. But about 40 percent of urban males and 54 percent of urban females in the work force belong to households below the poverty line. Yet only 18 percent of urban male workers and 21 percent of urban female workers reported availability for additional work. The actual proportion who could take up additional work is probably even smaller. If the weekly status evidence on days of unemployment is taken, then only 6—8 percent of the weekly status work force reported 0.5 or more days of unemployment during the reference week. Since the usual and weekly status work force have a very substantial overlap, it is likely that the proportion of the usual status work force with unemployed time will be very small. Yet we find that a large proportion of workers come from households below the poverty line. So in urban India (as in rural India), utilisation of unutilised labour time will not alleviate poverty to any significant extent. Poverty is a serious problem and the planning process must devote more attention to urban poverty removal programmes. The problem is acute among casual labourers, for about 70 percent of them belong to household below the poverty line. Schemes for self-employment in urban areas may not be appropriate for this group given their poor asset base.

Also the proportion of casual labourers to the usual work force has been rising over time from 10 percent to 13 percent for males and from 24 to 26 percent for females between 1972-73 and 1977-78.

2.48 Our projections given in the next chapter show that the expansion of the urban labour force will be rapid as labour force participation rates rise and as the urbanisation process operates to increase the size of the urban population. Each year 2-3 million more will join the labour force and jobs have to be found for them. This is only part of the problem; already the urban employment situation has deteriorated progressively since the 1960's. It would require a very rapid increase in the expansion of employment opportunities to counter these trends. In particular, unemployment is already much more open in urban India, and this is likely to become more so with socio-economic development and a rise in the proportion of casual labour households overtime. Also the unemployed are typically young, and many are educated. Unless concerted steps are taken, a very explosive situation is likely to materialise in urban India.

DETAILS OF TOWNS OMITTED IN TABLES 1.3 AND 1.5

There seems to have been a major redefinition of towns and cities in Kerala but no details are available hence many towns could not be traced in the 1981 Census. The remaining towns in other states were either those which have merged with higher cities or have been declassified in the 1981 Census :

Towns that have been omitted in each class according to 1971 Census are :—

- (i) Class I : Srinagar (J & K), Gauhati (Assam) and Jammu (J & K)(3 cities).
- (ii) Class II : Dibrugarh, Jorhat, Nowgong, Tinsukia and Silchar (Assam)
(5 towns).
- (iii) Class III : Tezpur, Dhubri, Karimaganj, Lumding, Sibsagar, Barpeta,
Bongaigaon, Hojai and N. Lakshimpur (Assam).
- Sopore, Anantnag and Baramula (J & K).
- Kilikolloor, Kanhangad, Haripad, Pantalayani, Payanoor,
Nemmon, Nileshwar, Kannamukulam, Kanjirapally
(Kerala).
- Rajpura Township (Punjab) (merged with Rajpura) (22 towns).
- (iv) Class IV : 24 towns in Assam, 3 in J & K.
- Kerala : Najarakkal (Ernakulam District), Balarampuram, Kovalam
(Trivandrum District), Ettamanoor, Ponkunnam, Kundak-
kayyam (Kotayam), Kadalundi.
- Elathur (Kozhikode), Pazhanji (Trichur), Majeshwar (Canna-
nore), Nammara, Mannarghat, Pattambi (Palghat),
Pandalam (Alleppey), Kendara (Quilon).
- Tamil Nadu : Velur, Sankari (Salem), Vellakoil, Sirumugai (Coimbatore),
Manimuthar (Tirunelveli).
- Karnataka : Shivalli, Shirwa, Udayavur (All in South Canara District).
- Maharashtra : Pipalgaon—Basvant (Nasik), Bhayndar, Shirgaon (Thane).
- Ballabgarh : Gurgaon, (Haryana), Ramnagar (Champaran, Bihar), Pidu-
gurualla (Guntur, Andhra Pradesh).
- (v) Class V : 25 towns in Assam; 14 in J. & K.
- Bihar : Mohania (Rohtas), Manoharpur (Singhbhum), Domchanch,
Kodarana (Hazaribagh), Burharwa (Santhal Parganas),
Bihta (Patna) and Namkum (Ranchi).
- Gujarat : Dhansura (Sabarkantha), Vasad (Kheda), Nakhatrama (Kutch),
Junadeesa, Varahi, Bhabharnava (Banaskantha).

- West Bengal : Haripal (Hooghly), Kataganj and Gokulpur Government Colony (Nadia) (merged with Gayeshpur), Dakshinjhurdha (Howrah).
- Tamil Nadu : Ithalar (Nilgiri), Sirungamani, Illuppur (Tiruchirapalli), Highways (Madurai), Samnikapuram (Ramanathapuram), Punjai Uthukalli (Coimbatore).
- Madhya Pradesh : Johilla Colliery (Shahdol), Sarsed (Chaltarpur) Dungaria Chapparia (Seoni).
- Karnataka : Tyamagondle (Bangalore), Pranthya (D. Kannad), Turuvannur (Chitradurga).
- Uttar Pradesh : Kaila (Ghaziabad), Rustamnagar (Muradabad).
- Kerala : Kazhakuttam, Chirayinkil (Trivandrum), Mokkal (Kozhikode), Parintalmanna (Malappuram), Kumbala (Cannanore), Wadakkancherry (Trichur), Hemabikanagar (Palghat).
- Andhra Pradesh : Chittivalasa (Vishakhapatam).
- Orissa : Gobindpur (Sambalpur).
- Punjab : Tankanwale (Ferozepur)
- Haryana : Toshiam (Hissar)
- (84 Towns).

Table 2.6

Details of Town Included in the Hinterland of Big Cities

All class I, II and III towns within a radius of about 100 Km straight line distance of the metropolitan cities were included in the definition of hinterland. Details by city size are :—

1. *Calcutta*

	Population		Percent Growth (Decadal variation)
	1981	1971	
Kharagpur	234,934	161,257	45.67
Nabawdip	129,647	94,204	37.62
Habra	127,855	93,351	36.96
Bankura	94,910	79,129	19.94
Ranaghat	84,081	47,815	75.85
Basirhat	80,805	63,816	26.82
Bangaon	70,912	50,538	40.31
Chakdaha	59,537	46,345	28.46
Contai	35,709	27,355	30.54
Ghatal	35,453	27,570	28.59
Baduvia	33,391	27,647	20.78
Tamluk	29,423	22,478	30.90
Gobardanga	28,034	20,184	38.89
Baruipura	27,081	20,501	32.10
Taki	25,502	20,931	32.57
Tarakeshwar	15,761	11,959	25.80
Kalna	35,988	28,594	25.80
Burdwan	167,589	143,318	16.94
Kajpur	60,791	34,393	76.75
All Hinterland Towns	1,377,403	1,021,385	34.86

2. *Bombay*

	Population		Percent Growth (Decadal variation)
	1981	1971	
Ulhasnagar	648,149	398,361	63.52
Thane	388,577	207,352	87.40
Vasaj	52,341	44,909	16.55
Panval	37,026	26,602	39.19
Bhiwandi	115,256	79,576	4.84
Khopoli	32,108	18,152	76.88
All Hinterland Towns	1,273,457	774,952	64.33

3. *Delhi*

Ghaziabad	291,955	127,700	128.63
Modinagar	86,614	43,470	99.25
Meerut	538,461	367,754	46.42
Hapur	103,406	71,266	45.18
Bulundshahar	103,666	59,505	74.21
Khurja	67,244	50,245	33.83
Alwar	139,973	100,578	39.45
Faridabad	326,968	85,762	281.05
Rohtak	166,631	124,755	33.57
Sonepat	109,537	62,393	75.24
Gurgaon	101,071	57,151	76.85
Bahadurgarh	37,409	25,812	45.22
All Hinterland Towns	2,072,871	1,176,191	76.24

4. *Madras*

	Population		Percent Growth (Decadal variation)
	1981	1971	
Vellore	246,937	178,554	38.30
K. Puram	145,329	119,693	21.42
Arcot	94,359	15,911	24.30
Gudiyatham	80,039	67,966	17.76
Arani	49,284	38,664	27.47
Changalpattu	47,324	38,419	23.18
Tindivanam	56,514	4,058	25.43
Tirupati	115,244	65,843	75.03
Chittoor	86,155	63,035	36.68
Srikalahasti	51,307	34,735	47.71
All Hinterland Towns	972,492	727,878	33.61

5. *Bangalore*

Kolar G.F.	144,406	118,861	21.49
Tumkur	109,231	70,476	54.99
Mandya	100,264	72,132	39.00
Kolar	65,602	43,418	51.09
Ramanagram	43,996		39.93
Channapatra	50,699	32,588	55.58
Chikballapur	40,030	29,227	36.96
Chentanamani	39,214	26,684	46.96
Doddhallapur	47,172	35,600	32.51
Kanakapura	30,153	20,197	48.56

Bangalore (Contd.)

	Population		Percent Growth (Decadal variation)
	1981	1971	
Hindupur	55,900	42,959	30.12
Gudipathem	80,039	67,966	17.76
Ambur	66,026	54,011	22.25
Tirupattur	52,422	40,357	29.90
Krishnagiri	48,327	35,383	60.58
Pornambat	30,056	23,325	28.86
Hogur	27,119	16,591	63.46
Jolerpat	21,603	20,069	7.64
Vaniyambadi	75,010	57,686	15.16
All Hinterland Towns	1,127,269	807,630	39.58
<i>6. Hyderabad</i>			
Warangal	336,018	207,520	61.92
Mahbubnagar	87,361	51,756	68.79
Nalgonda	62,506	33,126	88.69
Suryapel	43,849	21,724	101.85
Tandur	32,448	22,008	47.44
Bhongir	30,506	21,815	39.84
R' Puram	21,048	11,146	88.84
Naryanpel	27,866	21,744	28.13
All Hinterland Towns	641,596	390,839	64.16

Appendix Table A. 2.1

*Urban Population of States¹ in India
1951-1981*

(In thousands)

	Population of All Towns				Population of towns above 20,000 (Class I, II and III)			
	1951	1961	1971	1981	1951	1961	1971	1981
Andhra Pradesh	5419	6275	8403	12458	3358	4732	6942	11312
Bihar	2624	3914	5634	8699	1896	3023	4529	7634
Gujarat	4429	5317	7497	10556	2978	4212	6009	9060
Haryana	968	1308	1773	<u>2822</u>	617	950	1394	2321
Karnataka	4452	5266	7122	10711	2593	3669	5319	8870
Madhya Pradesh	3135	4627	6785	10589	2008	3141	5097	8170
Maharashtra	9201	11163	15711	21966	6623	9398	13961	20225
Orissa	594	1119	1845	3106	303	618	1317	2367
Punjab	1990	2568	3216	4620	1329	1940	2510	3742
Rajasthan	2955	3281	4544	7140	1646	2173	3321	5611
Tamil Nadu	7334	8991	12465	15928	3916	7090	10846	14446
Uttar Pradesh	6825	9480	12389	19973	5928	7853	10479	15288
West Bengal	2670	8541	10967	14433	5640	7793	10140	13761
India ₂	61,629	77,566	106,962	156,192	43,169	61,418	89,607	134,898

Notes : 1 Including all States with total population greater than 10 million in 1971 but excluding Kerala and Assam.

2 Including all States except Assam and Jammu & Kashmir.

Source : Census of India 1981—Provisional Population Totals—Series I—Paper 2 of 1981.

Appendix Table A 2.2

Rural Population OF States¹ IN India

1951-1981

States	Rural 1951	Population 1961	(‘000) 1971	1981
Andhra Pradesh	25695	29709	35101	41135
Bihar	36155	42533	50721	61124
Gujarat	11834	15316	19200	23404
Haryana	4705	6282	8263	10029
Karnataka	15312	18766	22176	26332
Madhya Pradesh	22939	27744	34869	41550
Maharashtra	22801	28392	34701	40749
Orissa	14052	16440	20099	23166
Punjab	7171	8567	10335	12049
Rajasthan	13015	16874	21222	26968
Tamil Nadu	22785	24697	28735	32370
Uttar Pradesh	154779	64272	75951	90913
West Bengal	20018	26386	33346	40052
India ²	288,176	347,274	421,951	501,953

Notes:— ¹Including states with total population greater than 10 million in 1971 but excluding Kerala and Assam.

²Including all states except Assam and Jammu & Kashmir.

Source:— Census of India 1981—Provisional Population Total—Series I Paper 2 of 1981.

119459

Appendix Table A.2.3
LEVEL¹ OF URBANISATION IN STATES²
1951-1981

	Population of All Towns as % of Total				Population of towns above 20,000 only as % of Total			
	1951	1961	1971	1981	1951	1961	1971	1981
Andhra Pradesh	17.4	17.4	19.3	23.3	10.8	13.2	16.0	21.1
Bihar	6.8	8.4	10.0	12.5	4.9	6.5	8.0	10.9
Gujarat	27.2	25.8	28.1	31.1	18.3	20.4	22.5	26.7
Haryana	17.0	17.2	17.7	22.0	10.9	12.5	13.9	18.1
Karnataka	22.9	22.3	24.3	28.9	13.4	15.6	18.2	23.9
Madhya Pradesh	12.0	14.3	16.3	20.3	7.7	9.7	12.2	15.7
Maharashtra	28.8	28.2	31.2	35.0	20.7	23.8	27.7	32.2
Orissa	4.1	6.3	8.4	11.3	2.1	3.5	6.0	9.0
Punjab	21.7	23.1	23.7	27.7	14.5	17.4	18.5	22.4
Rajasthan	18.5	16.3	17.6	20.9	10.3	10.8	12.9	16.5
Tamil Nadu	24.4	26.7	30.3	33.0	13.0	21.0	26.3	29.9
Uttar Pradesh	13.6	12.9	14.0	18.0	9.4	10.6	11.9	13.8
West Bengal	23.8	24.5	24.7	26.5	21.4	22.3	22.9	25.3
India ³	17.6	18.3	20.2	23.7	12.3	14.5	16.9	20.5

Notes 1. Urban Population as proportion of total population.

2. Including all state with total population greater than 10 million in 1971 but excluding Kerala and Assam.

3. Including all states except Assam and Jammu & Kashmir.

Source:—Table A 2.1 and A 2.2.

Appendix Table A2.4

Statewise Growth of Urban Population Excluding New Towns Added in 1981

1971-1981

State	No. of towns 1981	No. of new towns ² 1981	Total urban population excluding new towns 1981 ('000)	Annual Growth Rate	
				Uncorrected ⁵ (Peresent 1971-1981)	Corrected ⁶ per year
(1)	(2)	(3)	(4)	(5)	(6)
Andhra Pradesh	234	29(2)	12,160	4.0	3.8
Bihar	179	30(4)	8,374	4.4	4.1
Gujarat	220	29(2)	10,389	3.5	3.4
Haryana	79	17(6)	2,641	4.8	4.1
Karnataka	250	34(4)	10,327	4.2	3.9
Madhya Pradesh	303	72(6)	9,956	4.6	3.9
Maharashtra	276	31(2)	21,616	3.4	3.2
Orissa	103	27(9)	2,836	5.3	4.4
Punjab	134	28(4)	4,419	3.7	3.2
Rajasthan	195	43(7)	6,612	4.6	3.8
Tamil Nadu	245	18(1)	15,774	2.5	2.5
Uttar Pradesh	659	368(16)	16,829	4.9	3.1
West Bengal	130	19(1)	14,236	2.8	2.7
India⁴	3007	770(5)	136,169	3.81	3.35

¹ All states with 1971 population of 10 million and above.

² No. of towns added in 1981 i. e. towns not classified as such in 1971 (including those classified as towns in an earlier Census but not in 1971).

³ Figures in bracket give the population of new towns as a percentage of total urban population.

⁴ Including only the 13 states above.

⁵ Rate of growth of total population in States.

⁶ Rate of growth of urban population in State but excluding new towns in 1981 and excluding 1971 towns not found in 1981 census as detailed in Appendix 2.1.

Source:— 1. Census of India 1981 Series, 1, India Paper 2 of 1981.

2. Census of India 1971 Series 1, India Part II-A (i) General Population Tables Statement 5, page 185.

Appendix Table A 2.5

STATEWISE GROWTH OF RURAL POPULATION IN INDIA

1951-1981

State	Annual Rate of Growth of Rural Population (Percent for Year)		
	1951-61	1961-71	1971-81
(1)	(2)	(3)	(4)
Andhra Pradesh	1.46	1.68	1.60
Bihar	1.64	1.78	1.89
Gujarat	2.61	2.29	2.00
Haryana	2.93	2.78	1.96
Karnataka	2.06	1.93	1.73
Madhya Pradesh	1.92	2.31	1.77
Maharashtra	2.22	2.03	1.62
Orissa	1.58	2.03	1.43
Punjab	1.79	1.89	1.55
Rajasthan	2.63	2.32	2.42
Tamil Nadu	0.81	1.53	1.20
Uttar Pradesh	1.65	1.68	1.81
West Bengal	2.80	2.37	1.85
India ²	1.89	2.00	1.75

Notes:— ¹Including all states with a population of 10 million or more in 1971 excluding Kerala and Assam.

²Including all States except Assam and Jammu & Kashmir.

Appendix Table A 2.6
URBAN RURAL GROWTH DIFFERENTIAL (URGD) BY STATES¹
1951-1981

State	URGD ²		
	1951-61	1961-71	1971-81
(1)	(2)	(3)	(4)
Andhra Pradesh	0.01	1.28	2.42
Bihar	2.43	1.93	2.55
Gujarat	-0.76	1.21	1.48
Haryana	0.12	0.31	2.80
Karnataka	-0.37	1.13	2.44
Madhya Pradesh	2.06	1.59	2.78
Maharashtra	-0.27	1.45	1.79
Orissa	4.87	3.19	3.91
Punjab	0.79	0.39	2.14
Rajasthan	-1.58	0.99	2.20
Tamil Nadu	1.25	1.79	1.28
Uttar Pradesh	-0.70	1.03	3.08
West Bengal	0.32	0.16	0.93
India ³	0.48	1.29	2.11

Notes:—¹Including all states with a population of 10 million or more in 1971 but excluding Kerala and Assam.

²Including all states except Assam and Jammu & Kashmir.

³Taken as the difference between the growth rate of total urban population (census definition) and rural population growth rates.

III. Urbanisation in the year 2001

Introduction

3.1 It is necessary to make realistic projections of urbanisation in the country in order to reflect the magnitude of the task ahead in terms of the planning of urban development. The ideal methodology for so doing would be through the use of a dynamic model of the economy which stimulates economic growth of the country, distributes this growth by sector as well as space and also models the interaction of demographic variables with economic growth. Such a model is not available hence much simpler techniques have been used to project the space of urbanisation in the country upto the year 2001. The approach is to derive ranges of growth which appear to be feasible given the recent past experience of the country in both demographic as well as economic terms. This is therefore a broad and straightforward statistical exercise indicating upper and lower ranges of the expected distribution of urbanisation. Deliberate policy, programme and fiscal interacting can make some differences at the margin to the magnitudes and distribution indicated and these can be quite important.

Population Projections

3.2 Table 3.1 gives the total population projections from 1981 to 2001. Three variants are given. Variant I and Variant II are regarded as the high and low limits of the expected growth in population. Variant III gives results similar to Variant I but has been reached with somewhat different assumptions.

Table No. 3.1

Total population projections¹ 1981—2001

						(Population in million)
Variant	1981 ²	1986	1991	1996	2001	
Population Variant I	697	776	856	936	1016	
Population Variant II	697	774	850	923	993	
Population Variant III	697	776	856	937	1018	

Implied Growth Rates (per cent per year)

Year	Popula- tion Variant I	Popula- tion Variant II	Popula- tion Variant III
1981-86	2.16	2.12	2.18
1986-91	1.98	1.88	1.98
1991-96	1.81	1.81	1.66
1996-2001	1.66	1.47	1.68

Notes :—

1. For methodology, see text.
Source :— (i) Census of India 1981, *Final Population Totals Series I—India*, Paper I of 1982, Page vii.
(ii) Census of India 1981, *Report of Post Enumeration Check*, Series I—India, Paper 4 of 1982, page 6.
2. 1981 Final Population total adjusted for net omission rate.
3. *Assumptions*
 - (i) Population Variant I—The total population growth rate is made to decline smoothly every year from 2.27% in the initial year 1981-82 to 1.6% in 2000-2001, the terminal year.
 - (ii) Population Variant II—As above except that terminal year growth rate is 1.4%.
 - (iii) Population Variant III—Rural population growth rate declines smoothly from 1.76% in the initial year 1981-82 to 1.0% in 2000-2001 with constant URGD 2%.

3.3 The base population of 697 million in 1981 has been used, taking into account the net omission rate as found from the post enumeration check in the 1981 census.⁴ It is assumed that the growth rate of population will decline gradually from the initial 2.27 per cent in 1981-82 (the compound 1971-1981 growth rate, accounting for net omission rates in both years) to a terminal year (2000-2001) growth rate of 1.6 per cent for Variant I and 1.4 per cent for Variant II. In the past it had been expected that the decline in population growth would be faster and that a Net Reproduction Rate of 1.00 would be achieved by the end of the century. The results of the 1981 census indicate little slowdown in the rate of population growth. We have therefore opted to make these somewhat pessimistic assumptions about population growth upto the end of the century. Since neither mortality rates nor fertility rates are yet available from the 1981 census, nor the age distribution, it is not possible to do much better than the crude exercise presented here.

3.4 It is expected that total population of India will be in the range of 850 to 860 million by 1991 and 990 to 1020 million by the year 2001. For all practical purposes we may regard 1000 million as the approximate expected population by the end of the century.

⁴ The final population total was 685 million according to the 1981 census but the post enumeration check revealed a net omission rate of 1.795%.

3.7 The URGD for 1971 and 1981 was 2.11 for the country as a whole with the rate of urban population growth being 3.86 per cent a year and that of rural population growth 1.75 per cent. Two variants of URGD have been used over the projection period. Urban Variant I first increases URGD to 2.2 for the first quinquennium and then makes it decline gradually to 2.0 from 1986-1991, 1.8 for 1991 to 1996 and 1.6 from 1996 to 2001. Urban Variant II assumes URGD to remain constant at 2.0 over the whole period. There is no good basis for projecting the behaviour of URGD. As was shown in the Chapter I, URGD has varied from 0.46 in 1951-1961 to 1.29 in 1961-1971 to 2.11 in 1971-1981. These changes have been mainly due to changes in the rate of urban population growth while the rate of rural population growth expected has remained relatively steady (1.88, 1.97, 1.75 per cent per year in the last three decades respectively). The last decade witnessed a significant decline in the rural growth rate. As was shown in the last chapter, the share of agriculture in the national economy has declined to about 37 per cent and can be expected to continue to decline upto the end of the century. One can expect an attendant decline in rural population growth rates over the projection period. As shown in Table 3.2, the rural growth rates resulting from the projection assumptions imply a decline to about 1.1 per cent in the terminal year, when total population growth is 1.6 per cent in that year; and 0.9% when the terminal year population growth is 1.4 per cent. It would seem unrealistic for these growth rates to decline much further by the end of the century. This is the rationale for not expecting a further increase in URGD as has occurred over the past three decades. Moreover, our preferred Variant is *Variant I* where URGD is assumed to decline roughly in accordance with the decline in total population growth.

3.8 The results of this exercise indicate the following:—

- (i) The level of urbanisation is expected to be between 27 and 28 per cent in 1991; and between 31 and 32 per cent in 2001.
- (ii) This implies an absolute increase in urban population by about 70 million in the current decade to about 235 million in 1991 and a further 80 to 85 million increase to about 320 million by 2001.

3.9 The relationship between urbanisation and economic development is explored in Technical Appendix I. A regression relating the level of urbanisation to national per capita income was found to explain the variation of urbanisation levels between countries quite well. This relationship is used here to predict the urbanisation experience over the next 15 years by assuming certain rates of growth in per capita income and decreases in the proportion of labour force devoted to agriculture. Table 3.3 reports the results of this exercise. It is found that the level of urbanisation predicted is somewhat less than that in Table 3.2 above, but is still similar in broad orders of magnitude. This gives confidence in the projections given above. The somewhat lower predicted levels of urbanisation also indicate that if the pattern of urbanisation projected in Table 3.2 is to be consistent with world urbanisation trends, the pace of structural transformation of the economy in terms of both income growth and shift from agriculture will have to be somewhat more rapid than indicated in Table 3.3.

Table 3.3

*Projected level of urbanisation (1981—2001)
using world norms)*

Year	% Labour Force in agriculture (Ai)		Per capita income in US Dollars (Yi)		Level of Urbanisation using equation 1				Level of Urbanisation using equation 2			
	A ₁	A ₂	Y ₁	Y ₂	(A ₁ Y ₁)*	(A ₁ Y ₂)*	(A ₂ Y ₁)*	(A ₂ *Y ₂ *)	(A ₁ *Y ₁ *)	(A ₁ *Y ₂ *)	(A ₂ *Y ₁ *)	(A ₂ Y ₂)*
1981	66.7	69.6	192	192	26.40	..	24.59	..	22.85	..	21.14	..
1986	65.7	68.3	202	212	27.03	27.05	25.42	25.45	23.46	23.49	21.91	21.93
1991	65.0	66.9	212	234	27.48	27.54	26.31	26.36	23.91	23.95	22.75	22.78
1996	64.3	65.6	223	258	27.98	28.02	27.14	27.22	24.31	24.42	23.56	23.61
2001	63.6	64.5	234	285	28.40	28.51	27.85	27.96	24.83	24.91	24.26	24.34

- Notes : -
- Equation 1 $U_i = 67.20 + 22.9667 Y_i^* - 8.5166 Y_i^{*2} - 6184 A_i$
 - Equation 2 $\log_n \left\{ \frac{100}{U_i} - 1 \right\} = 1.045 - .8536 Y_i + .3453 Y_i^{*2} - 3.416 A_i^*$
 - For projection A₁, A₂, See Text.
 - Assumption for increase in Y_i
 Y_1 : annual increase 1%
 Y_2 : annual increase 2%
 - $Y^*i = \frac{Y_i}{10,000}$
 - $A^*i = \frac{A_i}{100}$

The Disaggregation of Urban Population Projections

The Distribution of Urban Population by City Size

3.10 It is important to distribute the growth in urban population by city size. The principle of the method used here is similar to that used for projection of urban population as a whole. The pattern of growth of the population in urban settlements above any cut off point is assumed to be logistic as a proportion of the total population. One can start with over 1 million population and predict their population in the future by utilising their growth record in the past decade. Once this is obtained, this predicted population is subtracted from the total population. Using this remainder, the same procedure is applied to the next class size i.e. Class I cities less than 1 million, and so on¹, until the rural population is reached. This is called the "Downward Procedure". In the "Upward Procedure", the rural population is first obtained, then the lowest class size (Class VI) and so on, until the metropolitan population is reached.

3.11 This procedure was utilised to predict the distribution of population by Class Size for 1971, using 1951 and 1961 data and for 1981 using 1961 and 1971 data. The results are presented in Table 3.4 which show that the predicted populations are remarkably close to the actual populations. This method was therefore regarded as reliable and projections are made for 1981 and 2001 which are displayed in Table 3.4

3.12 It may be noted that the proportion of total urban population, residing in metropolitan cities is expected to increase only marginally from about 27 per cent in 1981 to 28 per cent in 1991 but that in Class I cities as a whole is expected to increase from about 60 per cent in 1981 to about 64.5 per cent in 1991. (These projections include the population added in each Class size due to towns jumping class size from one period to the next). These projections may be regarded as quite firm for the upper class sizes upto about Class III since the towns that comprise these classes already exist. The natural population growth of these towns and the expected migration over the next decade, based on patterns largely similar to the past, yields these results.

1. For details of procedure, see Technical Appendix II.

Table 3.4

Distribution of urban population over various size classes (1971—2001)

Year		METRO	I	II	III	IV	V	VI	Rural	Total Urban	Total Urban Projected (From table 3.2)
1971	(i)	27.6	32.7	12.0	18.7	12.2	4.4	.7	423	108.3	
	(ii)	25.5	28.6	11.6	18.1	12.5	3.4	.7	429	100.4	
	(A)	27.4	32.7	12.0	17.5	12.0	4.5	.5	422	106.6	
1981	(i)	42.0	45.2	17.0	22.2	19.7	5.6	.6	506	152.3	
	(ii)	41.2	48.3	16.3	21.7	13.8	3.9	.7	506	145.9	
	(A)	42.0	52.3	18.1	22.4	14.9	5.6	.8	502	156.1	
1991	(i)	66.3	85.5	28.3	29.2	18.6	6.6	1.2	604	235.7	235
	(ii)	66.5	85.7	27.5	29.2	18.6	6.8	1.3	605	235.6	235
2001	(i)	97.4	132.0	39.5	34.4	21.0	8.0	1.3	704	333.6	316
	(ii)	97.2	133.5	38.6	34.0	21.3	7.5	1.3	703	333.4	316

Notes :—

1. 1971 and 1981 figure excludes Jammu & Kashmir and Assam.
2. 1991 and 2001 projections includes Jammu & Kashmir and Assam.
3. Total Population projection used is from Population Variant I.
4. Class Size

Metro	1 Million +
I	100,000 to 999,999
II	50,000 to 99,999
III	20,000 to 49,999
IV	10,000 to 19,999
V	5,000 to 9,999
VI below	5,000
5. 'A' stands for actual population according to Census of India.
6. (i) Gives projection from the "Downward Procedure".
(ii) Gives projection from the "Upward Procedure".

3.13 A somewhat more detailed exercise was done for the growth of metropolitan cities which is shown in *Table 3.5(a) and 3.5(b)*. The existing 12 metropolitan cities are shown in *Table 3.5(a)* and their population projected according to 4 different assumptions. It is difficult to make good population projections for individual cities. Variant A gives the projected population if all these cities grow at the same rate as in the past decade, taken as a group. Variant B assumes that each city will grow at its own past rate. Variant C imposes the weighted average growth rate of the largest 4 cities in all and Variant D the weighted average rate of the next 8. The total range obtained is between about 58 to 62 million population in these 12 cities taken as a group.

3.14 *Table 3.5 (b)* attempts to predict the cities which are expected to join the metropolitan groups i.e. become 1 million+ by 1991. The first 9 cities listed are in order of size after 1 million in 1981. The next 3, Dhanbad, Bhopal and Ulhasnagar are those which had extremely high rates of growth in the past decade and can only be expected to join the metropolitan club if these high rates of growth continue. Of the first 9, all are expected to cross the million mark under different growth assumptions except Agra, which grew very slowly in the past decade.

Table 3.5(a)

Projected population of existing Metro Cities, for 1991

(Population in millions)

City	Actual Population 1981	1971-81 Annual Growth Rate	Projected Population for 1991 under different assumption			
			(A)	(B)	(C)	(D)
1. Calcutta	9.17	2.69	12.92	11.96	12.65	13.44
2. G. Bombay	8.23	3.26	11.60	11.27	11.35	12.09
3. Delhi	5.71	4.59	8.06	8.96	7.88	8.40
4. Madras	4.28	3.04	6.03	5.75	5.90	6.29
5. Bangalore	2.91	5.82	4.11	5.12	4.02	4.28
6. Hyderabad	2.53	3.48	3.56	3.57	3.49	3.72
7. Ahmedabad	2.51	3.7	3.54	3.65	3.47	3.68
8. Kanpur	1.69	2.85	2.38	2.23	2.33	2.48
9. Pune	1.68	4.03	2.37	2.49	2.33	2.48
10. Nagpur	1.30	3.39	1.83	1.81	1.79	1.91
11. Lucknow	1.01	2.14	1.42	1.24	1.39	1.48
12. Jaipur	1.00	4.65	1.42	1.59	1.39	1.48
Total:—	42.0		59.24	59.64	57.99	61.73

Notes: 1. *Assumptions*

- (A) Using weighted average growth of 12 metro cities.
- (B) Using their own growth in decade 1971-82.
- (C) Using weighted average growth of first 4 metro cities.
- (D) Using weighted average growth of last 8 metro cities.

2. Formula used $P^t = P_0 (1+r/100)^t$

Table No. 3.5(b)

Cities expected to become metropolitan cities by 1991

(Population in thousand)

City	Actual Popula- tion 1981	Annual growth rate 1971-81	Projected Population in 1991			
			(A)	(B)	(C)	(D)
1. Coimbatore	917	2.22	1142	1284	1302	1312
2. Patna	916	6.43	1709	1283	1301	1310
3. Surat	913	6.40	1688	1278	1296	1305
4. Madurai	904	2.42	1149	1266	1284	1293
5. Indore	827	3.98	1219	1158	1174	1183
6. Varanasi	794	2.72	1307	1111	1125	1135
7. Agra	770	1.95	..	1078	1093	1102
8. Jabalpur	758	3.53	1073	1061	1076	1084
9. Varoda	744	4.77	1183	1042	1057	1064
Total :			10200	10561	10708	10788
10. Dhanbad	677	4.55	1055	..	..	..
11. Bhopal	672	5.73	1174	..	..	..
12. Ulhasnagar	648	5.05	1059	..	..	..
Total :			13488	10561	10708	10788

Notes:— 1. Assumptions

- (A) Using individual growth rates.
 (B) Using weighted growth rate of cities more than 500,000 population.
 (C) Using weighted growth rate of cities more than 750,000 population.
 (D) Using weighted growth rate of cities more than 500,000 and less than 750,000 population.

g. Formula used $P_t = P (1+r/100)^t$.

3.15 Adding the total population of the existing 12 metropolitan cities to that of the new additions, the range obtained is about 70 to 75 million as compared with 66 million predicted in Table 3.4. This indicates that the projections of Table 3.4 have built into them a certain slowing down of some of the largest cities. If the decline in growth of the largest cities (Calcutta, Bombay, Madras) continues, this result is quite plausible. If, however, the largest 20—24 cities continue to grow at their current rates, their total population and, consequently, their share in total urban population, will be higher than that projected in Table 3.4. At any rate, it can be asserted with some confidence that the population in million plus cities is extremely unlikely to be less than 65.0 million in 1991.

3.16 It now remains to project the number of towns in each category. This is given in Table 3.6. The methodology used is to use the pareto distribution to generate the number of towns in each size class (Details are given in Technical Appendix II).

3.17 This method is quite good at predicting the number of towns upto the Class II category, but it tends to under-estimate the number of towns in the lower size classes. This is therefore done by a more crude method for Class III and Class IV. If it is assumed that the average growth rate of urban population in the 1981-1991 decade is about 45 percent and that, as in the past, the growth rate of towns in each size is similar, on average, the number of towns in Class III and Class IV can be predicted by merely examining the number of existing towns which can be expected to cross over into these categories by 1991 by such growth. Thus most towns with 14,000 and above population in 1981 can be expected to cross over 20,000 in 1991 and those between 7,000 and 10,000 can be expected to cross over 10,000 over the same period. Since the number of these towns is large it may be expected that the slower than average growers will be compensated by the fast growers which are not accounted for here—thus yielding broadly similar figures. It is not possible to predict the number of Class V and Class VI towns in a similar manner since they are likely to be subjected to reclassification of villages into towns and *vice versa*.

The regional Distribution of Urban Population

3.18 It is also useful to disaggregate the expected urban population by region. This is done in Table 3.7. The methodology used is the same as for country-wide projections except that the URGD taken for each region is the same as its own URGD in 1971-81. It turns out that the total urban population predicted by this procedure is about 230 million in 1991 which is quite close to the overall projection. It should be noted that the method used does not ensure consistency with the over-all totals,

Table 3.6

EXPECTED NUMBER OF CITIES/TOWNS IN VARIOUS CLASS SIZES IN 1991

Year	Metro ¹	Other ² Class I	Class ² II	Class III	Class IV	
1981 Actual		12	204	270	739	1048
Predicted		15	189	239	794 ²	1452 ²
1991 A		21	275	344		
B		23	289	360	938 ³	1297 ³
C		21	258	323		

Notes := 1. From Projections A, B, C. Table 3.5

2. From Pareto distribution

Simple Projections

See Technical Appendix II.

Table 3.7

The Regional Distribution of Projected Urban Population
1981-1991

(Population in million)

S. No.	Name of the Zone	Year	Total Population	Urban Population	Urban Population
1.	Eastern Zone	1981	177.5	2.95	16.6
		1986	197.1	33.7	17.1
		1991	218.9	39.2	19.9
		1996	238.6	44.3	18.6
		2001	256.8	49.6	19.3
2.	Northern Zone	1981	73.4	17.6	12.2
		1986	83.8	24.4	20.1
		1991	95.7	25.3	26.6
		1996	107.0	31.0	29.0
		2001	118.8	37.4	31.5
3.	Central Zone	1981	169.2	36.3	21.5
		1986	190.0	45.8	24.1
		1991	213.5	57.8	27.1
		1996	234.7	71.1	30.3
		2001	2056.4	86.2	33.6

Sl No	Name of the Zone	Year	Total Population	Urban Population	%Urban
4.	Western Zone	1981	96.9	32.5	33.5
		1986	108.5	38.3	35.3
		1991	121.4	45.5	37.5
		1996	133.0	52.5	39.5
		2001	144.9	60.3	41.6
5.	Southern Zone	1981	166.4	44.6	26.8
		1986	183.5	52.8	28.8
		1991	202.3	62.4	30.8
		1996	218.3	71.4	32.7
		2001	234.2	81.3	34.7

Notes:—

1. Total population of various zones has been projected by using formula $P_t = P_0 (1+r)^t$. Base year population are unadjusted for net omission rate for each zone.
% Urban obtained by using logistic curve.
*d growth differential taken as the same as of 1971-81 for all regions.
- 2.1 Southern Zone — (i) Andhra Pradesh, (ii) Karnataka, (iii) Tamil Nadu, (iv) Kerala, (v) A.N.Islands, (vi) Dadra and Nagar Haveli, (vii) Goa, Daman and Diu, (viii) Lakshadweep and (ix) Pondicherry.
2. Western Zone—(i) Gujarat, (ii) Maharashtra.
3. Eastern Zone—(i) Orissa, (ii) Bihar, (iii) West Bengal, (iv) Assam, (v) Arunachal Pradesh, (vi) Nagaland (vii) Manipur, (viii) Tripura, (ix) Mizoram, (x) Meghalaya, (xi) Sikkim
4. Central Zone—(i) Uttar Pradesh, (ii) Madhya Pradesh (iii) Delhi.
5. Northern Zone—(i) Jammu & Kashmir, (ii) Punjab, (iii) Haryana, (iv) Himachal Pradesh, (v) Chandigarh (vi) Rajasthan.

Table 3.8

The Regional Distribution of Urban Population by Class Size (1981-1991)¹

Zone	Year	Metro	I	II	III	IV	V & VI	Total
(i) Southern Zone	1981	9.7	16.0	5.9	8.2	3.8	.9	44.5
	1991	14.2	26.2	8.8	10.9	3.6	.7	64.2
(ii) Western Zone	1981	13.7	8.9	2.6	3.8	1.3	.7	31.0
	1991	18.9	16.4	2.9	4.6	1.4	.6	44.8
(iii) Central Zone	1981	8.4	12.6	4.4	3.8	4.3	2.6	36.1
	1991	12.2	19.3	9.6	4.0	7.9	4.8	57.8
(iv) Northern Zone ²	1981	1.0	7.5	1.7	3.0	2.3	.7	16.2
	1991	1.7	12.4	1.5	4.4	3.4	.7	24.1
(v) Eastern Zone ³	1981	9.0	8.5	3.3	3.7	2.1	.7	27.3
	1991	11.9	16.2	5.7	4.5	2.4	.5	41.2
Total	1981	41.8	52.5	17.9	22.5	13.8	5.6	155.1
	1991	58.9	90.3	28.5	28.4	18.7	7.3	232.1
India	1981	42.0	52.3	18.1	22.4	14.9	6.4	156.1
Country Wide ⁵	1991	66.3	85.5	28.3	29.2	18.6	7.8	235.7

Notes:— 1. Projections are being done by using downward procedure.

2. Excluding Jammu & Kashmir

3. Excluding Assam.

4. Including Jammu & Kashmir and Assam

5. Independent country wide projections Table 3.4

It is, however, difficult to make any other assumptions about the behaviour of URGD by region. Table 3.8 gives the regional distribution of urban population by class size. The procedure used for each region is the same as was used for the country as a whole. Again, this does not ensure consistency with the countrywide results. But the results obtained are broadly consistent except that the metropolitan million + category is possibly predicted.

The Growth of Employment and Labour Force

3.19 The projection of employment in urban and rural areas would be best done if embedded in a country wide inter sectoral dynamic model. This has not, however, been possible to do here and, once again, relatively crude methods have been employed to do these projections.

3.20 The last chapter reviewed the behaviour of the growth in labour force and employment over the past decade. The projections here are done by merely applying the crude labour force and work force participation rates that appear from this review. It is expected that these participation rates will increase gradually over the next 15—20 years. This is partly because of the changing age structure of the population as there is some decline in the rate of population growth. The proportion of people in the 15-64 age Group can be expected to increase. In addi-

tion, it can be expected that the participation of women in the labour force would also increase. These two trends can be expected to be countered by increasing educational opportunities which delay the average age of entry into the labour force. *Table 3.9* gives the labour force and work force participation rates that have been assumed and the resulting projections of labour force and work force. Results are given only for the most preferred population and urbanisation variant: Population Variant I and Urban Variant I. The results for other variants are given in Appendix *Table 3.2*

Table 3.9

Growth in Work Force and Labour Force (1981-2001)

(Persons in millions)

Year	Labour Force			Work Force			Growth in inter Period Labour Force		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
1981	240	61	301	187	48	235			
1986	263	74	337	208	60	268	23	13	36
1991	285	91	376	230	73	303	22	17	39
1996	308	109	417	251	88	339	23	18	41
2001	333	128	461	273	104	377	25	19	44

Note:—1. Population Variant I and Urban Variant I are used.

Re. (a) Total Population growth is assumed to decline from 2.27% in the initial year to 1.60% in the terminal year.

(b) URGD's 1981-86 2.2%, 1986-91 2.0%, 1991-96 1.8% and 1996-2001 1.6%.

2. (i) Labour Force participation rate (LFPR)
(ii) Work Force participation rate (WFPR).

Assumptions

	LFPR				
	1981	1986	1991	1996	2001
Rural	45.0	45.5	46.0	46.5	47.5
Urban	37.0	37.5	38.5	39.5	40.5
<i>WFPR</i>					
Rural	35	36	37	38	39
Urban	29	30	31	32	33

3.21 The main point to note is the rapidly rising labour force in urban areas. It is expected that while the absolute increase in rural labour force in the next three or four quinquennia will remain stable at about 22 million the net additions to urban labour force will keep increasing from about 13-14 million in 1981-86 to 19-20 million in 1996-2001. The net additions to rural and urban labour force will be almost comparable towards the end of the period.

3.22 The pressure exerted by such increases in labour force on employment opportunities available is obvious. During the Seventh Plan period alone over 3 million urban jobs will have to be created annually. This calls for special attention to be paid to the problems of urban employment in the next 15 years.

3.23 A first approximation of the economywide changes in the sectoral distribution of labour force can be obtained. Table 3.10 gives the sectoral distribution of employment according to the 1977-78 National Sample Survey (32nd Round). It is found that the intra-rural and intra-urban changes in the sectoral distribution of employment have been negligible over the past 2 decades. A comparison with other countries also reveals that these proportions remain quite stable until much higher increases in income are achieved. Agriculture claims approximately 80-85 percent of employment in rural areas. Of the major States only in Tamil Nadu, West Bengal and Kerala is employment in agriculture in rural areas lower than 80 per cent. In urban areas, employment in agriculture appears to keep stable at about 15 per cent as more and more fringe areas and other erstwhile rural settlements get classified as urban. The proportion of employment in the secondary sector in urban areas is seldom found to increase much beyond 30 per cent.

Table-3.10

Sectoral Distribution of Employment (1977-78)

Sector	Rural %	Urban %	Total %
1. Agriculture	83.36	15.21	69.59
2. Mining and Manufacturing	6.49	28.22	10.88
3. Electricity, gas and water	0.13	0.85	.27
4. Construction	1.32	3.75	1.81
5. Trade, Hotels and Restaurants	3.29	18.73	6.41
6. Transport, Communication and Storage	0.81	7.94	2.25
7. Others	4.60	25.29	8.78
Total	100	100	100

Source : National Sample Survey (32nd Round) 1977-78.

3.24 It may therefore be expected that the structural change in employment in the economy will be due mainly to rural urban shifts. Assuming the same intra-urban and intra-rural distributions as 1977-78, as given in Table 3.10, the resulting economywide distribution of employment is projected for 1981 to 2001 in Table 3.11 (a)

Table 3.11 (a)*Sectoral Change in the Employment (1981-2001)*

Sectors	1981	1986	1991	1996	2001
1. Agriculture Forestry and Fisheries .	69.59	68.32	66.92	65.56	64.46
2. Mining and Manufacturing . .	10.88	11.28	11.73	12.16	12.53
3. Electricity, gas and water . .	.27	.28	.31	.32	.33
4. Construction	1.81	1.86	1.90	1.95	1.99
5. Trade, Hotel and Restaurants .	6.41	6.70	7.02	7.32	7.57
6. Transport, Communication and Storage	2.25	2.38	2.53	2.67	2.79
7. Others	8.79	9.18	9.59	10.02	10.34
Total.	100	100	100	100	100

Notes:—1. Intra Urban and Intra Rural distribution as in table No. 3.10

2. Rural Urban Labour Force projection as in table 3.9 (based on population Variant I Urban Variant I.)

Table 3.11 (b)*Inter-Sectoral Distribution of Employment (1981-2001)*

Sector	1981			1991			2001		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Primary .	83	15	69	80	15	63.3	78	15	60.5
Secondary .	6.5	28	11	6.75	30	12.4	7	32	13.9
Tertiary .	10.5	57	20	13.25	55	23.3	15	53	22.5
Total	100	100	100	100	100	100	100	100	100

Note:—Labour force projections as in table 3.9

Employment in agriculture (including forestry and fisheries) is found to decline very gradually from just under 70 percent in 1981 to about 64-65 percent by 2001. Although this change seems very minor it should be noted that in the Indian historical context such a shift will constitute a major change since this proportion has remained largely stable since the beginning of the century. *Appendix Table 3.3* gives the absolute sector distribution of labour force for 1981-2001.

3.25 The implication of minor changes in the intra-rural and intra-urban distribution may also be noted. If the share of agriculture in the rural labour force is assumed to decline from the current 83 per cent to 78 percent by 2001 (with corresponding increases in the Secondary and Tertiary Sector) and the share of manufacturing in urban areas increases to 32 percent, the overall agriculture share will decline to about 60 percent. This scenario is regarded as somewhat unlikely since even the more advanced states do not at present show any systematic decline in the share of agricultural employment in rural areas. A 60 percent share of agriculture in overall employment can therefore be regarded as the outer limit to its decline by 2001. *Table 3.11 (b)* gives these results.

The Growth of Urban Income

3.26 The last chapter had shown the relatively rapid increases in urban incomes over the last 3 decades leading to a rise in the ratio of urban and rural per capita incomes. Once again, it should be emphasised that these estimates of urban and rural incomes are very crude because of the availability of direct data in the national accounts statistics. This section attempts to project the growth of urban and rural incomes, given that the growth in population and labour force has already been projected.

3.27 *Table 3.12* gives the changing structure of the Indian economy as it is expected to grow over the next decade or so. The figures given take account of the revised targets for 1984-85 as given in the Sixth Plan Mid Term Appraisal of the Planning Commission. Further projections to 1989-90 and 1994-95 are done on the basis of the original perspective projections for each sector in the Sixth Plan. As in the past the share of agriculture continues to decline quite rapidly : this is when the assumed output growth is 3.75 percent a year¹ from 1984-85 to 1994-95 which is higher than the trend growth achieved in the last 3 decades. The growth rates assumed for the other sectors are also on the optimistic side : the changing proportions are then quite realistic.

3.28 It is difficult to project urban product or incomes from these data. A first approximation can, however, be made. We have already derived the urban and rural sectoral distributions of the labour force (given in *Appendix Table A 3.4*). We now assume that the ratio of urban and rural per worker productivity remains constant as calculated by the C.S.O. for 1970-71 (*Appendix Table A 3.6*). These are not unrealistic ratios : it is unlikely that they would move in favour of rural areas in the foreseeable future. The urban share of output is then calculated for each sector given all the above information and this is given in *Table 3.13*. The share of urban output in national gross output is projected to rise from about 47 percent¹ in 1980-81 to 51 percent in 1984-85,

Table 3.12

Changing Structure of the Indian Economy

Sectoral distribution of gross output at factor cost (1980-81 — 1994-95)

(Percent Share)

Sector	1980-81	1984-85	1989-90	1994-95
1. Agriculture, Forestry and Fisheries	37.8	34.2	31.3	28.5
2. Mining and Manufacturing	18.7	21.3	22.3	23.4
3. Electricity, gas and water supply	1.8	1.9	1.9	2.1
4. Construction	4.7	4.6	5.0	5.3
5. Trade, Hotel and Restaurant.	14.4	15.0	15.7	16.3
6. Transport, Communication and Storage.	6.0	6.4	6.6	6.8
7. Others	16.7	16.6	17.1	17.6
Total :	100	100	100	100

Source : Appendix Table A.3-5.

54 percent in 1989-90 and just under 58 percent in 1994-95, while the share of urban population moves from 23.6 percent to 29 percent. It is clear therefore that urban per capita incomes are expected to continue to rise faster than rural incomes. Table 3.14 gives the changing urban/rural per capita income ratios. It rises from 2.87¹ in 1980-81, to 3.05 in 1984-85, 3.19 in 1989-90 and 3.34 in 1994-95, which constitute changes similar to the past experience.

3.29 It is difficult to envisage how the scenario would be different from this somewhat disturbing projection. There are two possibilities : either urbanisation would be more rapid leading to more people sharing urban incomes, or rural productivity would rise faster than projected. As mentioned, the rate of growth of agricultural output assumed is already higher than the trend record would suggest. Thus rural productivity could be higher only if there is a greater spread of non-agricultural activities in the rural areas. The record of the more advanced states is not too encouraging in this respect. Appendix Table A 3.7 gives the share of labour force devoted to agriculture for each of the major states. Only West Bengal and Tamil Nadu have a share of less than 80 percent with West Bengal at 75 percent and Tamil Nadu at 78 percent. Hence, it is difficult to expect a dramatic change in the structure of the rural labour force in the next 10-15 years. The other possibility is for a higher rate of

¹ It is higher than that given in Table 2.13 in Chapter II because of different assumptions made in the calculations. This is regarded as a better approximation.

Table 3.13*Gross output in Urban Areas by Sectors
(1994-95)*

(Rs. Crores in 1979-80 prices)

Sectors	1980-81	1984-85	1989-90	1994-95
1. Agriculture, Forestry and Fisheries	1963	2280	3074	4092
2. Mining and Manufacturing	13964	19326	27417	38683
3. Electricity, gas and water supply	1145	1431	2103	3062
4. Construction	2415	2976	442	6512
5. Trade, Hotel and Restaurant	11758	14713	20734	28795
6. Transport, Communication and Storage	4700	6100	8479	11734
7. Others	11878	14358	20141	28052
Total Urban Output	47824	61183	86364	120931
Percent of total output	46.9	50.6	54.3	57.7
Percent Urban Population	23.6	25.1	27.1	29.0

Source : Using (i) Sectoral distribution of GDP in appendix Table A.3-5.

(ii) Sectoral distribution of labour force in appendix table A.3.4

(iii) Ratio of value added per worker in urban and rural areas for 1970-71 in Appendix A. 3.6.

Table 3.14*Projected Urban and Rural Per Capita Incomes*

Year	Per Capita Income (Rs)		Ratio
	Rural	Urban	Urban/Rural
1980-81	1017	2916	2.87
1984-85	1051	3203	3.05
1989-90	1188	3788	3.19
1994-95	1357	4529	3.34

Notes — (1) Urban/Rural value added from table 3.13 and appendix table A 3.6

(2) Urban/Rural population interpolated from table 3.2 (Population Variant I, Urban Variant I).

(Population in Millions)

	1980-81	1984-85	1989-90	1994-95
Rural	533	569	612	653
Urban	164	191	228	267

urbanisation and greater absorption of labour in urban areas. This also seems unlikely given the record of urban employment as described in the last chapter. The direction of projections given here should therefore be regarded as quite realistic, given current conditions and trends.

3.30 The main mitigating features which make urban/rural disparities lower than suggested by these projections is the considerable transfer of incomes in terms of remittances from urban to rural areas. This was mentioned in the last chapter since the movement in urban/rural ratios for per capita consumption is not high over the last couple of decades. Nonetheless, it is quite clear that much greater attention will have to be paid in the future to the provision of employment in urban areas if rural areas are not to be immiserised. At the same time it is imperative that rural productivity be raised.

Appendix Table A 3.2

Growth in Work Force and Labour Force (1981-2001)

(Persons in million)

Year	Labour Force			Work Force			Growth in Inter period Labour Force		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
1981	240	61	301	187	48	235			
1986	262	74	336	208	59	267	22	13	35
1991	293	90	373	228	73	301	21	16	37
1996	303	107	410	248	87	335	20	17	37
2001	325	125	450	267	102	369	22	18	40

- Note :
1. Population Variant II and Urban Variant I are used.
i.e. (a) Total population growth is assumed to decline from 2.27% in the initial year to 1.40% in the terminal year.
(b) URGD's 1981-86—2.2%, 1986-91—2.0%, 1991-96—1.8% and 1996-2001—1.6%.
 2. (i) Labour force participation rate (LFPR)
(ii) Work force participation rate (WFPR)

Assumptions

	1981	1986	1991	1996	2001
LFPR Rural	45.0	45.5	56.0	46.5	47.5
Urban	37.0	37.5	38.5	39.5	40.5
WFPR Rural	35	36	37	38	39.7
Urban	29	30	31	32	33.7

Appendix Table 3.3

Sectoral Distribution of Labour Force (1981-2001)

Persons in millions

(Persons in millions)

Sector	1981			1986			1991			1996			2001		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
1. Agriculture	200.0	9.2	209.2	219.1	11.3	230.4	237.9	13.8	251.7	256.5	16.4	272.9	277.7	19.5	297.2
2. Mining and Manufacturing	15.6	17.1	32.7	17.1	21.0	38.1	18.5	25.6	44.1	20.0	30.6	50.6	21.6	36.1	57.7
3. Electricity gas and water Supply . . . . .	.3	3.5	.8	.3	.6	.9	.4	.8	1.2	.4	.9	1.3	.4	1.1	1.5
4. Construction	3.2	2.3	5.5	3.5	2.8	6.3	3.8	3.4	7.2	4.1	4.1	8.2	4.4	4.8	9.2
5. Trade, Hotel and Restaurant	7.9	11.4	19.3	8.7	13.9	22.6	9.4	17.0	26.4	10.1	20.3	30.4	11.0	23.9	34.9
6. Transport, Communication and Storage	1.9	4.8	6.7	2.1	5.9	8.0	2.3	7.2	9.5	2.5	8.6	11.1	2.7	10.2	12.9
7. Others -	11.1	15.4	26.5	12.1	18.8	30.9	13.1	22.9	36.0	14.2	27.5	41.7	15.3	32.3	47.6
Total:—	240.0	60.7	300.7	262.9	74.3	337.2	285.4	90.7	376.1	307.8	108.4	416.2	333.1	127.9	461.0

Notes:— 1. Intra-Rural and Intra Urban distribution from NSS 32nd Round (1977-78) Table 3.10

2. Labour Force Projections from Table 3.9 (Based on Population Variant I, Urban Varian I).

Appendix A 3.4

Distribution of Labour Force by Sectors
(1980-81 to 1994-95)

(Persons in millions)

Sectors	1980-81		1984-85		1989-90		1994-95	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1. Agriculture Forestry and Fisheries	200.15	9.24	215.06	10.80	233.40	13.24	252.57	15.90
2. Mining and Manu- facturing	15.58	17.14	16.75	20.04	18.18	25.55	19.67	29.90
3. Electricity gas and Water supply . . . . .	.30	.52	.33	.61	.35	.74	.38	0.90
4. Construction	3.17	2.27	3.41	2.66	3.70	3.26	4.00	3.90
5. Trade, Hotel and Restaurant	7.90	11.38	8.49	13.30	9.22	16.30	9.97	19.00
6. Transport, Commu- nication and Storage	1.94	4.82	2.08	5.64	2.26	6.69	2.45	8.50
7. Others	11.06	15.36	11.88	17.95	12.89	22.00	13.95	26.90
Total :	240.00	61.0	258.0	71.0	280.05	87.0	303.0	105.00

Notes :— 1. Interpolated from labour force projection in table No. 3.9.

2. Inter Urban Intra Rural distribution by sectors has been done by using NSSO 32 round results, 1977-78 given in table 3.10

Appendix Table A 3.5
Estimated GDP at Factor Cost by Sectors
 (1979-80 Prices)

Sectors	1980-81 ¹	1984-85 ¹	1989-90 ²	1994-95 ²
1. Agriculture, Forestry and Fisheries	38574	41380	49743	59796
2. Mining and Manufacturing	19046	25793	35538	48965
3. Electricity, gas and Water supply	1801	2198	3091	4347
4. Construction	4747	5613	7891	11093
5. Trade, Hotel and Restaurant	14702	18100	24964	34059
6. Transport, Communication and Storage	6127	7796	10571	14334
7. Others	17051	20105	27262	36967
Total :	102048	120985	159060	209561

Notes :— 1. Revised estimates of GDP at factor cost by sectors: Sixth Plan *Mid-Term Appraisal* Planning Commission, New Delhi 1983.
 2. Projected from 1984-85 by issuing same sectoral growth rates as projected in *Sixth Five Year Plan* 1980-85 Planning Commission, New Delhi 1981 (Table 2:9).

Appendix Table A 3.6

Value Added Per Worker in Rural and Urban Areas (1970-71)
 (at 1970-71 Prices)

Sectors	Net Domestic Product Per Worker (Rs.)		Urban/Rural
	Rural	Urban	
1. Agriculture, Forestry & Fisheries	1217	1529	1.1610
2. Mining and Manufacturing	1568	3918	2.4976
3. Electricity, gas and Water Supply	6165	6201	1.0058
4. Construction	6253	9046	1.4467
5. Trade, Hotel and Restaurant	2069	5737	2.7728
6. Transport and Communication and Storage	2957	3921	1.3260
7. Others	1879	3106	1.6534
Total :	1443	3930	2.7235

Source :— Central Statistical Organisation—*National Accounts Statistics* 1981. New Delhi 1981 (Table A 1.2 and A 1.3 pages 150-151).

Appendix Table A 3-7*Statewise Share of Agricultural Labour Force 1977-78*

State	In Rural Areas
	Percent Share
India	83.3
Andhra Pradesh	82.4
Assam (including Meghalaya)	84.4
Bihar	84.7
Gujarat	88.4
Haryana	81.3
Himachal Pradesh	N.A.
Punjab	81.1
Jammu & Kashmir	84.4
Karnataka	84.8
Madhya Pradesh	91.5
Maharashtra	85.7
Orissa	85.0
Rajasthan	88.1
Tamil Nadu	78.1
Uttar Pradesh	82.3
West Bengal	75.4

Source :— National Sample Survey 32nd Round 1977-78.

Notes : — 1. Main and Marginal workers have been included.

2. Agriculture is taken to include forestry and Fisheries.

IV. Mechanism for the Planning of Urban Development

Themes in Indian Urban Policy

Introduction

4.1 The previous chapters have documented that the Indian Urban System has exhibited remarkable stability characteristics as indeed has the Indian economy as a whole. There is little likelihood of an appreciable decline in the growth of urbanisation in the foreseeable future. The distribution of city sizes in India is relatively even and the historical record suggests that no dramatic changes should be expected in the normal course in the next two to three decades. What is needed therefore is a search for methods that will help cope with the growth of cities rather than an avoidance of this growth. The problems of different types of towns have to be dealt with according to their respective needs. What follows in this chapter is first a brief review of the kinds of urban policies and planning approaches that have been followed until now followed by suggestions for changes in the current approach.

National Economic Policies with Spatial Effects

4.2 It must be recognised at the outset that explicit spatial policies in India, such as restrictions on industrial location, incentives for industry to locate in backward areas, infrastructure investments in particular types of towns and cities, etc., have seldom been strong enough to alter existing spatial and hierarchical patterns. Policy and programme interventions have been half-hearted, loosely co-ordinated, to say the least, and even counter-productive. Spatial considerations have never received the attention they deserve. Policy has been half-hearted in as much as few of the points at which governments might intervene to manage urbanisation and affect its course and direction have been properly tackled. It is unco-ordinated in as much as national planning trends to be in terms of sectoral outlays while urban planning has been mainly linked with physical layouts. It is counterproductive in as much as the effort has been to divert, retard, or stop urban growth, and in particular to inhibit the expansion of metropolitan cities.

4.3 It will be useful here to document by way of illustration some of the unintended spatial effects of national economic policies. Industrial policy, for example, has had many unintended effects. One key element of the country's industrial policy has been its textile policy. A combination of licensing control, excise duty policy and trade policy, favouring handlooms over powerlooms, over mills has led to a restriction of the mill sector expansion in textile production. The main objective of this policy has been to protect the employment potential of decentralised handloom industry. The effect has been to keep a large number of cities relatively stagnant in their spatial and technological industrial structure. As a result, some of the mill based cities have grown slower than they otherwise would have if production of mill cloth had been en-

couraged. Simultaneously, some new centres with concentrations of power-looms have sprung up. Some of these effects may be regarded as beneficial spatial effects of industrial and employment policy. They are given here to illustrate unintended spatial effects of policies which are essentially national economic policies.

4.4 Trade Policy has also had many unintended effects some of which have been beneficial. To the extent that some industries are more protected than others, the former tend to concentrate in a few locations. On the one hand an export oriented growth strategy promotes the location of industry (and hence population) in port cities like Bombay or those well connected by transport to those port cities. On the other hand strong import substitution policies have favoured industrial growth since the mid-fifties in inland cities such as Bangalore, Hyderabad, Delhi, Bhopal, Ludhiana and Jullundur. Again trade protectionist policies have contributed to the languishing of the port cities of Calcutta and Madras. At the same time, an industrial licensing system has favoured the promixity of industry, for at least of large corps of liaison personnel, to administrative centres of political and financial power where the licensing permits, etc. have to be obtained. This had led to somewhat faster growth of these governmental centres. Many of the State capitals have grown significantly faster in population than other cities. Particularly rapid has been the growth of Delhi, the national capital not all of it originally intended. Protection of industry involves an implicit subsidy: it brings about an effective transfer of resources into industry from other sectors which in turn results in a bias towards spatial concentration even of basic social services such as education, health and medical services. Under-investment in these services in dispersed areas increases to some extent the attraction of those areas where these services are concentrated.

4.5 Transport policies have had very strong spatial effects. Since the existing railway network has been altered little since independence it continues to reflect the colonial priorities of efficient transportation to the port cities. Industrial dispersal policies can only meet with limited success if transportation systems are lacking in the areas which are designed as recipients of the dispersed industries. A major effort, for example, has been made to develop the twin city of New Bombay on the mainland adjacent to Bombay island. But development has been slow in the absence of a rail link either to the new city and between it and its hinterland.

Policies on Industrial Dispersal

4.6 An example of explicit spatial policy is the decentralisation of industry which has been a declared aim of the government for a long time. Entrepreneurs are given attractive incentives to locate in backward areas. These incentives include low interest rates on loans from term-lending institutions, priority in the granting of loans, income tax concessions, capital investment subsidies and transport subsidies. In addition, different state governments offer additional incentives to firms to encourage location in the backward areas of their states. Another measure for the decentralisation of industry has been the provision of industrial estates in outlying areas. The issue is more complex than is generally

supposed. It can be asserted with some confidence now that considerable dispersal of industry *has* taken place in the last fifteen to twenty years, which has at least partly been a direct result of these policy measures. But the pattern of dispersal may not have been as planned or up to expectations.

4.7 A large proportion of all industrial activity before independence was concentrated in Calcutta, Bombay, Madras, Ahmedabad and Kanpur. As mentioned earlier, substantial concentration has now taken place in inland cities such as Bangalore, Hyderabad, Delhi, Poona, and later in Bhopal, Ludhiana, Jullundur and the new steel towns—particular in Durgapur in West Bengal which has diversified considerably. A glance at the map of India reveals that there is now a major industrial centre in all regions of the country outside East Central India and the North East. Given the size of the Indian Industrial base it would have been unreasonable to expect any greater dispersal without incurring significantly higher costs. Bangalore, Ahmedabad and Hyderabad are fast developing into major metropolitan centres and should now be spoken of along with the traditional largest four cities of Bombay, Calcutta, Madras and Delhi as “national” cities. Over the next two decade, it is likely that Poona, Jaipur, Bhopal and Lucknow will also join this list. These may be cited as beneficial consequences of national policy.

4.8 If data on the location of manufacturing are examined carefully as has been done by Sekhar (1983)¹ it will be seen that there has been a noticeable trend towards better distribution of industry over the past two decades. As late as 1976, the States of Maharashtra, West Bengal, Gujarat and Tamilnadu together accounted for about 55 percent of total value added and 52 percent of employment in the manufacturing (factory) sector in the whole country. Maharashtra alone accounted for 25 percent of value added and 19 percent of employment. However, in 1961 these four states alone contributed as much as two thirds of value added and about 58 percent of employment. This degree of concentration may be compared favourably with Japan where only the three major metropolitan concentrations of Tokyo, Osaka and Nagoya between themselves account for 65 percent of industrial output. Given the extremely large size of Japan’s industrial base this represents a very high degree of concentration. Despite avowed policies of decentralisation of industry, and despite the very high growth rate of industry in Japan which should at least make feasible industrial dispersal, little success has been achieved in Japan in its quest for a better distribution of industry by region. Similar problems have been faced by Italy, France, the United Kingdom, etc. in implementing regional policies.²

¹ A. Uday Sekhar “Trends in Inter-State Disparities in Industrial Development in India, 1961 to 1975.”

Indian Economic Journal Vol. 30, No. 22, Oct-Dec., 1982.

² C.E.C.D. *Regional Problems and Policies in OECD Countries*. Vol. 1, Vol. 2, Paris 1976.

4.9 The Indian performance on dispersal compares well with any of these countries. The proportion of value added in manufacturing to state Net Domestic Product has gone up in every state but faster in the less industrialised States. There is, therefore, a trend toward equalization of these ratios among States. A more systematic approach to measuring industrial decentralisation among States is to compute an inequality index of the distribution of industry among states, same as one might compute an inequality index of income distribution across states. The computation of such an index as done by Sekhar showed a marked decrease in the value of the inequality index. At the same time, it must be pointed out that there is no evidence of a shift of industry from larger cities to smaller towns of India as a whole though the picture does vary from State to State. If data are examined for the distribution of industrial employment (in household and non-household industry) among different classes of cities and towns in 1961 and 1971, it will appear that relative to population, employment in household industry tends to be more concentrated in the smaller classes of towns where the demand of the population for small quantities of simple manufactured products are met by household production units. Thus, while about 15 per cent of the urban population resided in towns of less than 20,000 in 1971 as much as 24 per cent of the household industrial employment was found in these towns. At the same time, less than 8 per cent of non-household industrial employment would be found in these towns. The concentration of household industry in small towns was even greater in 1961. Household industry has tended to move away from small towns in favour of somewhat larger towns although evidence is inconclusive on this point because of definitional changes regarding workers between the 1961 and 1971 census. On the other hand, there is not much evidence of a marked change in the distribution of non-household industrial employment between small and large towns from 1961 to 1971—as measured by the inequality index comparing concentration of industrial employment with that of population. The picture is not uniform across States, however: there is evidence, for example, that there was some shift away from large cities in Maharashtra, Gujarat, Uttar Pradesh, Andhra Pradesh and Karnataka. On the whole, although there has not been deconcentration from large cities to small towns, the number of large cities itself has increased.¹

4.10 The designation of "Backward Areas", where the incentives for industrial location alluded to earlier could be taken advantage of, was done so liberally that as many as 247 districts (out of a total of about 350 in the country) qualified for these incentives. These districts cover about 60 per cent of the population and 70 per cent of the total area.² As the current dispersal incentives are framed, industry has naturally taken advantage of the incentives in the *least* backward areas and particularly those in the vicinity of metropolitan areas. Almost 90 per cent of the concessional investment funds went to as few as 22 districts in the country.² Furthermore, at least three of the metropolitan cities (New Delhi, Bangalore, Hyderabad) had designated "Backward Areas" in their backyards in districts adjacent to them. Not surprisingly, private industry has been quite happy to take advantage of the incentives

¹. All the above evidence taken from Sekhar op. cit.

². Government of India : National Council for the Development of Backward Areas (NCDBA).
Report on Industrial Dispersal.
New Delhi : Planning Commission 1982.

to locate in these areas probably resulting in the faster growth of these cities. This can be termed as an example of "unintended effects" of a spatial policy.

4.11 The N.C.D.B.A. has made a step in the right direction by identifying 100 centres which ought to be considered as industrial growth centres. Each of these centres has to satisfy the dual criterion of population over 50,000 (to ensure a minimum of agglomeration economies) but with fewer than 10,000 industrial workers. These centres are also not to be near existing industrial centres. The main deficiency in these suggestions is that selection is then done mechanically on the basis of these criteria rather than on a region-based need and function exercise. The aforementioned NCDBA "Report on Industrial Dispersal" also points out the importance of social infrastructure in the locational decisions of firms. For dispersal to be successful, the availability of fiscal incentives for dispersal have to be accompanied by the provision of physical infrastructure-transport, communications, power, water, etc. Furthermore, the availability of good schools, medical facilities, etc. are crucial to attract skilled and high skilled labour and professionals. It is obvious that given the economy wide resource constraints it is currently not feasible to provide all these facilities in a large number of locations at once. This suggests two courses of action. First, given that there are now over 200 cities with over 100,000 population, and likely to be over 300 by 1991, the existing infrastructure, physical as well as social, should be better utilised. Hence, among these cities, those which have low levels of industrial activity and employment could be considered for selection as industrial growth centres. But care should be taken to assess their industrial potential given the regional characteristics and availability of facilities, etc. Second, in the more backward areas, where these cities may not exist, a judicious selection of a small, number of centres should be made so that all the required facilities may be provided.

Modes of Urban Planning

(a) Spatial Planning of Cities

4.12 There was very little by way of explicit or direct "urban policies" or planning until about the Third Five Year Plan. Considerable thinking on urban issues resulted from the preparation of the Delhi Master Plan (1961 to 1981). The salient feature of this plan was the proposal for advance acquisition of all the projected urbanisable land for 20 years by the Government and subsequent disposal on a controlled and lease-hold basis. It also envisaged the development of Delhi as a "multi-nodal" city and proposed the construction of as many as 15 business centres so that commuting to the centre would be reduced and communities could be more self-contained. Consistent with this thinking of a "decentralised" city it was also suggested that the growth of Delhi be restricted by the development of "countermagnets" or ring towns around Delhi. The development of industry was to be restricted and only a few selected industries were to be allowed to develop. The old city was to be "decongested" and industries located there shifted out.

4.13 These ideas characterise the dominant thinking on urban planning and land use over the past twenty years even if they may not have been effectively carried out in practice. Starting from the early sixties, town plann-

ing organisations have been established in every state and statutory town plans have been prepared for the majority of cities of any substantial size, specially those with population of over 100,000. These are basically physical land use plans characterised by relatively strict separation of land uses. They have essentially followed British Town Planning traditions and especially as have been applied to the British New Towns. The result has been that their implied standards have been far too high for the economy of a low income country like India and the Master Plans have largely remained on paper. The key problem has been that these Master Plans are seldom linked with investment planning, and no institutional machinery was devised to link such plans with national and state level investment planning exercises.

4.14 The idea of developing ring towns or "countermagnets" has not met with marked success. A conspicuous failure has been Kalyani near Calcutta, which was fashioned in a way quite similar to British new towns. This was supposed to help in restricting the growth of Calcutta as of London, among other objectives. Similar attempts are being made near Madras, New Bombay adjacent to Bombay and around Delhi. The towns around Delhi have actually grown faster in population than Delhi but it is not clear whether they have had the effect of attracting population away from Delhi or adding to it. Perhaps, the concept itself is flawed. An understanding of metropolitan agglomeration economies would suggest that an alternative to a metropolitan centre is another metropolitan centre and not a nearby small town. It is quite likely that the development of Bangalore 200 miles from Madras has had the effect of slowing down the growth of Madras. Similarly, it may be expected that the other emerging 'national' cities would have corresponding effects on the existing major metropolitan centres. Another issue is purely arithmetical. A slowdown by one percent a year in the rate of growth of a 5 million city would need 20 towns of 50,000 each to accelerate their growth by 5 percent each. This is clearly in excess of the nation's investment and other capabilities. Moreover, the number of nearby towns in any one case is likely to be less than 20.

4.15 Apart from specific investment programmes devoted to the building of State capital projects, (Gandhinagar in Gujarat, Bhubaneswar in Orissa, Bhopal in Madhya Pradesh, Chandigarh in Punjab/Haryana) substantial investment funds have gone into the World Bank aided urban development projects in Calcutta and Madras and now Kanpur. The other main plan schemes have been the "Integrated Urban Development Programme" which directed infrastructure investment to cities over 300,000 in the Fourth and Fifth Plans. A recent extension of this idea is the "Integrated Development of Small and Medium Towns". The latter scheme is expected to invest Rs. 1 crore in each of 200 towns with populations less than 100,000. The total funds invested in these efforts have been meagre and despite the use of the term "Integrated" there has been little integrated planning of these schemes. The articulation of these schemes is more approximated by a response to shopping lists thrown up by different towns according to the guidelines provided. As is evident, the allegation that large cities have been favoured by planned investments is largely true despite rhetoric that concentrates on the stopping or arresting of growth of large cities.

(b) *Planning for Slums*

4.16 Within cities the main concern has been with the increasing numbers and magnitudes of slums. Early beginnings were made in the Second Plan period (1956-61) when the dominant idea was to "clear" slums and to house the "cleared" slum dwellers in multi-storeyed tenements. Such thinking continued until the late sixties despite its impracticability in the face of estimates which show that as many as 20 percent of urban dwellers might be living in areas which may be defined as slums and about another 20 percent in squatter settlements. Since 1972 wiser counsel has prevailed and a large scale programme of "Environmental Improvement of Slums" has been in progress. The idea is essentially to improve the basic physical environment of slums *in situ* by the paving of lanes, provision of piped water, latrines, storm water drainage and sanitation. Over 100 million slum dwellers should have benefited from these programmes by now. Associated with this are sites and services projects for assisting the poor to obtain shelter but these projects are still not widespread except in Calcutta, Delhi and Madras.

(c) *Curbing real estate speculations*

4.17 Concern with curbing speculation in urban land has manifested itself in almost every plan document. The two main types of measures that have been used to accomplish this may have been counter-productive. The first is the idea of large scale acquisition of land by the Government for development and disposal. The idea is to acquire large chunks of urbanisable lands in advance and to freeze land prices by so doing. The public sector is to then capture the unearned increments in land value after developing the land and disposing it at cost plus development plus prices to the public in an equitable manner. Such an approach has obviously facilitated urban planning in an organised manner. The second measure is the Urban Land Ceiling and Regulation Act which puts a ceiling on urban land ownership in all cities on a graduated scale starting from 500 sq. metres in the largest metropolitan cities. The idea is to thwart large land owners from undesirable speculation and to bring more land under government control for development in order to improve its access to the poor. The first measure has been used mainly in Delhi and in New cities like new Bombay and Chandigarh. While the idea is attractive in principle it has not worked out very well in practice. It has had the effect of restricting the total supply of urban land because of the monopoly of the public authority which finds it difficult to keep up with demand in physical and financial terms. The result has been very noticeable rises in land price. The continuing control of large amounts of land by a public authority also leads to two other undesirable effects. The acquisition at prevailing agricultural prices brings the land at extremely low prices. Public use of the land so acquired becomes profligate reflecting this low price and what results is sprawling development sending up infrastructural, communication and commuting costs and shortage of available land at a later date. The other effect is the inevitable pressure of those in power—the politicians, bureaucrats and other organised groups—for preferential access to land at low prices. The extension of these ideas to a host of other cities has led to frequent "land grab" scandals wherever the opportunity has arisen. The net result is that access of the poor to housing and building land been dismal. Nor have the rises in land prices slowed down. Public authorities have often behaved like private monopolists, with, of course, greater disregard of individual needs.

4.18 Similar problems have been encountered with the operation of the Urban Land Ceiling Act, which as proved extremely cumbersome to implement. The theoretical flaw in this legislation is two-fold. First, this is a one shot affair: even if the supply of urban land is increased by this measure it does so only once. The supply in the future is then decreased. Second, it is horizontally inequitable since as is well known, within the same metropolitan areas the price of land can vary a hundred-fold depending on its location. This problem was recognised in the rural land ceiling measures by the definition of "standard acres" such that people with less valuable (and productive) land were allowed to retain larger plots of land. This is clearly impossible in urban areas because of the vast differences in values. Again, the net result has been an effective constriction in the supply of land which may have been responsible for the countrywide rapid escalation in land prices over the last few years.

4.19 A common thread in many of these bold but ineffectual measures have been a lack of realism in the instruments available to the state and in an understanding of urban processes. The thinking behind these policies has betrayed a fear of urbanisation that will let in migrants who will threaten the privileges of settled city populations.

Urban Policies : Some New Directions

4.20 Policy on urbanisation must shift its attention away from restriction—be it on city sizes land transactions or industrial location. Policy should be oriented positively to enable an orderly transition from a predominantly agricultural and rural society to an increasingly urban one. The tertiary sector has already surpassed the agriculture sector in its overall contribution to the gross national products. Such emerging facts should be recognised and urban policy tailored accordingly.

4.21 Policy on urbanisation should shift from an adhoc approach to different problems and different towns to a more integrated approach toward investment and physical planning.

4.22 The planning of urban development should be done at a regional and sub-regional level. This is to be distinguished from regional planning as a whole. What is being argued here is that regional urban systems can be identified according to their economic, climatic, geographical and transportation characteristics. The National Sample Survey, for example, defines economic regions in the country which are relatively homogeneous. Planning for urban development can be done on the basis of such regions and according to the relative need and function of each town in its regional context. Thus, within a planning zone there would be no allocation to towns because of their size but more because of their function and need. The physical and investment plans can then be dovetailed at the regional level and then fed into the State level plans which are, in turn, coordinated with the national plans. Recognition should be made of the metropolitan cities with regional and national functions. Again, this should not merely defer to size. In the North East, for example, there will not be a million plus city for quite some time to come but there is probably a need for one city, Gauhati, for example to perform the functions of providing linkages with the rest of the national urban system. Since these metropolitan cities are not narrowly wedded to their regions for their existence and

functions, they need more specific city level planning exercises which, again, should be physical and investment plans linked with the state and national plans.

4.23 Within towns and cities there is a much greater need for community participation as well as the exercise of private initiative and investment in urban development than exists at present. The delivery of the basic public services to everyone is simply not feasible without such an approach. At present there is little between the citizen and city government, and sometimes even the state government. What is needed is community level institution building such that the needs of the community can be expressed in an organised manner as well as provided in this fashion. Slum improvement, sanitation, garbage removal, etc. can be organised and even paid for at the community level. Collection of user charges, loan repayments, taxes, etc. could also be improved in this manner. Unit costs of services could also decline. For the larger the city the more difficult it is for the city level authority to provide for the myriad needs of different areas of the city. It may also be hoped that such a people oriented approach will also lend more realism to urban policies and planning.

4.24 The following sections suggest some changes in the modes of urban planning which would account for some of the shortcomings of past approaches which have been documented in brief above.

Urban Development Planning: Suggestions for a New Approach

Introduction

4.25 This section attempts to provide a brief description of the existing arrangements for urban development planning at the national, State and local levels. It then suggests measures and methods for improving these arrangements and considers the possibilities of new institutions for coping with the emerging needs of the future.

4.26 The last section provided an overview of the main approaches and plan schemes that have been followed in the country over the past two or three decades. These approaches can, at best, be described as piecemeal and fragmented. Even schemes which were called "Integrated", e. g. "Integrated Urban Development Programme" (IUDP) and "Integrated Development of Small and Medium Towns" (IDSMT), were focussed on towns of different sizes: cities over 3 lakhs population in the case of I. U. D. P. and towns under 1 lakh population in the case of IDSMT. The selection of towns was then quite arbitrary and little attempt has been made at planning of urban development as a whole. As mentioned, a major hiatus was the absence of effort to link these physical plans with investment planning at the city, state and national levels. The main interventions have been in the metropolitan city and State capital projects and the various slum clearance and improvement schemes. In these cases, investments were made in response to major service deficits which could no longer be ignored or, in the case of the new State capitals, investments were made relatively lavishly for the provision of a very high level of infrastructure. Other lavish investments were made in the establishment of new townships for large public sector enterprises such as the steel plants and heavy electrical plants. Except for this last group, planning has not emphasised

growth of industries, production and employment. It is clear from this brief summary that there has been no attempt at any kind of integrated urban development planning at any level.

4.27 It should, perhaps, be made clear what is meant by urban development planning here. It is taken to include the planning of urban infrastructure and services for the growing urban population who will be employed in more production work, producing greater national wealth, while claiming and enjoying a share thereof. These services consist of basic facilities like water supply, sanitation, drainage, land development, solid waste disposal, roads, street lighting, etc.

4.28 The provision of these services is characteristically done by localbodies or state government appointed authorities. Other services like transport, power, communication, health and education are also integral to urban development where provision should be linked with other infrastructure and services. In plan practice, however, they come under ill-coordinated different plan heads and ill-coordinated government departments. The problem of urban development planning is then coordination of these services along with the core urban services mentioned above.

4.29 Planning for urban development should essentially be supportive of economic development in the country, state or sub-region, be it in agriculture, extractive industries, manufacturing industry or in the tertiary sector. The provision of services and infrastructure removes constraints to the growth of these sectors or in some cases, promotes it. However, the provision of urban services and shelter alone is usually unlikely to stimulate large scale urban development. It is important to time investments in urban services and shelter to coincide with investments in industry, mining and commerce which provide permanent sources of employment so that these types of investments can be fully productive. This should be the key objective of urban development planning.

Existing Arrangements for Urban Development Planning The National Level

4.30 At the national level the main organisations concerned with urban planning in some form are the Planning Commission (P.C.), the Ministry of Works and Housing (MOWH) and the Town and Country Planning Organisation (T.C.P.O.). At the same time other ministries and organisations of the Govt. of India (GOI) have an important role to play in the matter of urban planning and development. Major investment decisions are taken by national level organisations which have various spatial implications. Each of these organisations have their own systems and methods of appraising projects and their own criteria for taking investment decisions. Furthermore, they themselves take action resulting from their own decisions and often have their own machinery for dealing with physical and infrastructural aspects of their major projects and programmes, which precludes consultations with appropriate bodies.

4.31 Decisions on transport have major effects on the growth (or lack of it) of urban areas. Investment in industrial estates or industrial growth centres often goes to waste if there is no matching and adequate investment in roads and rail lines to serve them. There is for example, little chance of New Bombay succee-

ding in attracting the projected volume of population and activity until the railway line is extended there. Similarly, decisions concerning communication—extension of telecommunication services—are also crucial.

4.32 Large public sector industries characteristically provide housing and service infrastructure for their own direct employees and the township is then run like a company town. Little provision is made for all the indirect employment and resulting population growth that takes place. The existing local body or state government is then called upon to make infrastructure and service provision for the growing town. Durgapur and Rourkela are two examples of how not to set about such matters.

4.33 Food procurement and storage are now major activities of the government and government agencies. Mandi activity is seriously affected by decisions related to the location of godowns, the volume of procurement activity, etc. Consequently, the need for various types of infrastructure arises. Conversely, towns where such activity does not take place, get affected adversely by such decisions. Again, currently, there is little coordination of urban development planning with such activities.

Organisational Considerations at the National Level

4.34 One of the first things that requires to be done is proper coordination between Ministries/Departments/Organisations at the national level in the matter of major investment decisions and location of projects. Even looking at the most obvious implications, each project has to consider impact on employment (direct and indirect), basic services for large numbers of workers and non-workers, social amenities for the new settlements which are likely to come up, communications net work and housing. Impact on existing settlements, both urban and rural, and the relationship between the new settlements and the existing ones would have to be considered also.

4.35 The Planning Commission, as in other sectors, decides on the total quantum of resources that are to be devoted to urban development for the country as a whole. It further allocates these resources between states and between schemes both for Central Sector and State Sector activities. Urban development investments are mainly in the State Sector except for some specific Central Sector Schemes. It is not, however, clear on what basis the allocation of resources to urban development is done. At present it does not seem that there is any systematic basis on which this is done. On existing schemes, the allocation is largely based on previous allocations. On World Bank assisted metropolitan and other projects, the allocations get determined by the size of the negotiated projects. New schemes, e.g. the IDSMT, which appear in a Five Year Plan, are allocated some ad hoc amount. In addition to the expenditures included in the head "Urban development" as mentioned earlier, many more expenditures under other heads are made in industrial townships, by the railways and other organisation which go towards augmenting the total volume of urban infrastructure. At present there is little coordination of these allocations within the Commission. The existing "Housing and Urban Development Division" is one of the smallest in the Commission consisting of just 3 officers : One Deputy Adviser, one Senior Research Officer and one Research Officer. As such, little technical work and forward

planning gets accomplished, the pressure of routine work being what it is. There is little capacity for on going analysis of urbanisation patterns, settlement patterns, evaluation of existing projects, etc.

4.36 The perspective Planning Division (PPD) is responsible for inter-sectoral consistency and coordination as well as for long term projections for the country as a whole, disaggregated sectorally. As yet there is no urban/rural dichotomy built into the perspective planning model though more consideration is now being given to regional disaggregation. The other division that has considerable responsibility for urban related issues is the Transport Division which is responsible for urban transport policy as well.

4.37 The Ministry of Works and Housing has one Division concerned with housing and urban development headed by a Joint Secretary and it performs essentially secretariat functions. As it currently stands it has little technical capacity and is mainly administrative and policy making in nature. In terms of planning the Ministry is responsible for coordinating the proposals and schemes for urban development for consideration of the Planning Commission. Further, it is responsible for monitoring of the plan schemes once they are approved. It is not technically well equipped to do so currently.

4.38 The Town and Country Planning Organisation is the technical wing of the Ministry but currently plays a very limited role in influencing urban planning and development in the country as a whole. It was founded originally for the formulation of Delhi's Master Plan. After the formation of the D.D.A. it was transformed into a national organisation. In the sixties it was quite active in the promotion of State level town planning organisations as well as in the formulation of the master plans. Its decline in activity and importance has partly been a result of its success in forming its State level counterparts. Direct responsibilities for formulation of master plans, etc., has then devolved to the State level organisations and the T.C.P.O., it would appear, has not been successful in adapting to its changed circumstances. Now it has direct responsibility only in respect of certain programmes financed by the Ministry. It also offers services to various public sector undertakings and other Government Departments on a consultancy basis. The Ministry also places some monitoring responsibilities with the T.C.P.O. for specific plan schemes. The scrutiny of projects under the IDSMT, for example is done by the T.C.P.O., as well as monitoring of progress of slum improvement schemes. Although the organisation has a multi-disciplinary staff its orientation has largely been that of physical planning. If the Ministry of Works and Housing has to play a greater role in urban planning and development at the national level, the T.C.P.O. could be developed as a strong technical arm of the Ministry for the appraisal of major projects and advice on measures to be taken to deal with the consequences of major Central Government investments in the country.

4.39 The Institute of Urban Affairs is a body supported by the Ministry of Works and Housing. It has possibilities which are far from well articulated as yet. It is important to assist and enable it to assume an appropriate character and importance.

The State and Local Level

4.40 At the State level the organisations dealing with urban development and planning are the State Secretariat Departments concerned, the Planning Boards or Departments wherever they exist and the Town Planning Departments. There is no uniform pattern of the responsibilities of the Secretariat Departments. In West Bengal, for instance, there is a Department of Metropolitan Development in addition to the Department of Urban Development. Other States often have Departments of Local Self Government which are exclusively concerned with the administration and control of Local Bodies. In some States there is one Department of Housing and Urban Development, while in others these responsibilities are split into two departments. In addition, core infrastructure services like water supply are often the responsibility of yet another Department or Organisation.

4.41 Most of the Town Planning Departments are still engaged in conventional physical land use planning, though no doubt, there are some exceptions to this general observation. As mentioned earlier, Town Planning Departments have formulated Master Plans for a large number of towns under an earlier Plan Scheme. But all the shortcomings and impediments that attack at the national level appear in accentuated form at most state levels. There is no firm tie-up between the plans of the Town Planning Departments and state funding of programmes. While preparing these "Plans" the Town Planning Departments rarely consider the problem of resources. This is not necessarily the fault of these departments since they were set up as primarily physical planning agencies and staffed mainly with physical town planners. Hence if planning of urban development at the State level is to be improved, a complete re-orientation of these organisations would be necessary. There would have to be inter-disciplinary teams who would have to work closely with the people who provide the resources and take major investment decisions.

4.42 The State Secretariat Departments concerned with Urban Development (as with other secretariat departments) have little planning capability. By and large, they merely do some expenditure allocation of the few plan schemes in this field (IUDP, IDSMT, slum improvement) to the various agencies (Local and State level) who implement them. In State with metropolitan cities, the importance of the departments is somewhat greater and so is the power of the Metropolitan Development Authorities where the detailed planning work concerning the metropolitan areas is done.

4.43 The state Planning Bodies have also yet to focus on urban development planning and their current activities mainly consist of expenditure allocation accounting and coordination. Even the States which have the better planning bodies have little technical planning capability in urban development at the State level.

4.44 The picture at the local level is somewhat mixed. To begin with the largest cities: Calcutta, Madras, Delhi and Bombay all have metropolitan development authorities now (CMDA, MMDA, DDA and BMRDA). The responsibility for planning for the metropolitan area rests with them. In the case of CMDA and DDA they carry out the bulk of execution of capital works as

well. MMDA and BMRDA, though quite different in their functions, are similar in that they are not executing agencies but do mainly planning and coordination. MMDA has been more effective (and older) while BMRDA is yet to establish its authority effectively because of the presence of the well functioning and powerful Bombay Municipal Corporation which, moreover, unlike other city corporations, has jurisdiction over all of Greater Bombay. Of the other 8 existing metropolitan areas, development authorities have been appointed in all except Nagpur and Poona. One of the key problems in the planning of metropolitan areas is the multiplicity of jurisdictions. Characteristically, the jurisdiction of the existing city corporations has not expanded with the growing city with the result that the metropolitan area is composed of a number of local bodies ranging from city corporations to municipalities to notified area authorities.

4.45 Even below the metropolitan level there are about 50 urban development authorities who have been designated as the relevant planning authorities for those cities. Their level of activity and quality of expertise is quite varied. The reason for their appointment is usually two-fold. One is that they become necessary when an urban area expands to cover more than one local body. The second is that State Governments prefer to channel funds for infrastructure investment through a State Government Agency like an urban development authority rather than through the existing local bodies which are often seen as too corrupt and inefficient.

4.46 In the rest of the towns and cities there is precious little planning except for the Master Plans prepared by the Town Planning Deptt. on behalf of the local bodies. The lack of capital funds renders planning for infrastructure investments infructuous anyway. What then remains is the enunciation of planning and development controls to be implemented by the local body, which do not amount to much beyond words and exhortations.

An Agenda for Improvement : Coping with the Emerging Needs of the Future

4.47 The last section has documented the weak institutional base for urban development planning at present. Quite understandably and justifiably the country's planning energies have been devoted much more to the planning of rural areas. The absolute volume of urban population (over 160 million) now and its accelerated rate of growth is such that planning of urban development will have to be done much more systematically at all levels—national, State and local. It will no longer be practicable to come up with various ad hoc programmes designed to combat certain very pressing and visible problems at the neglect of others. At the same time it must be recognised that resources for urban development are highly limited and will continue to be so for the foreseeable future given the existence of widespread rural poverty and lack of basic services in rural areas. Mechanisms for urban development should then be designed such that there is better allocation of existing funds as well as cost saving and cost recovering use of any additional funds that might become available. A realistic assessment of needs for basic infrastructure and services is therefore a pre-requisite for efficient and effective planning. A dialogue between the formulation of standards that are consistent with the income levels in the country and available investible funds would be a crucial component of any new mechanisms that are suggested.

4.48 The first re-orientation that should take place, as has been argued, is a departure from exclusive preoccupation with problems of large cities along with wishful lip-service to the role of small and medium towns as *alternatives* to the growth of large cities. The problems of different towns, by size or by region, have to be dealt with according to their respective needs.

4.49 It must be recognised that the largest cities, particularly Bombay, Calcutta, Delhi and Madras, and increasingly, Bangalore, Ahmedabad and Hyderabad, may be regarded as national cities. While each of them is a regional centre, each performs national functions as well. They should be seen as performing a useful as well as productive role for the region as well as the country as a whole. Apart from some of these metropolitan cities, a more fruitful approach to urbanisation would be economic analysis of urbanisation disaggregated by region. The network of urban centres can then be seen in their regional context and policies framed accordingly. A large concentration in a big city would then be seen in its regional context as well as national context.

4.50 The explanation for the growth rate of different cities aggregated by different size classes would be sought more in relation to the economic characteristics and trends of the regions the cities are based in. For example, some of the differential trends in urbanisation are better explained by the high rates of income growth in Punjab, Haryana and Western Uttar Pradesh, along with slow rates of growth and agricultural stagnation in Eastern Uttar Pradesh, Bihar and Orissa—rather than any pattern related to city size. Indeed forecasting of urban growth would also be more fruitful if done by economic region than by city size. It follows that programmes of urban development should also be framed in the context of regional or sub-regional plans.

4.51 What is being argued here is that, apart from metropolitan cities which have regional as well as national functions, the planning of urban development should be done at the regional and sub-regional level in the manner already discussed. There are various regional classifications available which delineate areas according to their economic, climatic and geographical characteristics. Planning for urban development can be done on the basis of such regions and according to the need and function of each town in the region. Steps should be taken by States to identify urban development planning regions for the Seventh Plan and plan for their investment needs.

4.52 The main lesson from the above may be reiterated: policy on urbanisation must shift its attention away from the distribution of city sizes. The distribution of city sizes in India is one of the most even in the world as are their respective rates of growth. It would be more desirable for policy to focus on the needs of each region and city. The approach to urban policy must be more economic than physical. The central problems are those of employment and incomes. It is here that the roles of different towns and cities must be understood. Employment location policy needs to be coordinated with infrastructure investment policy in terms of location.

4.53 For this approach to be implemented a new system of urban development planning will have to be put into operation. This, however, has to take account

of existing systems, practices and institutions and to build on them as far as is possible. The key to the new approach is two-fold. First is close interaction between physical and financial and investment planning and second is the preparation of regional or sub-regional urban development plans to make the first possible.

4.54 At present, the lack of this interaction invariably results in much too high physical standards which results in the available resources catering to the happy few. This dialogue can be institutionalised if there is constant monitoring of costs of different types of 'technologies and standards that go into the provision of the necessary urban services. These standards can then be revised as necessary in line with available resources. Such monitoring and standard setting would then help in deriving costs of required investments at all levels quickly.

4.55 What is envisaged then is that overall costing and allocation of resources to urban development should be done at the national level between the Planning Commission and the concerned Ministry—the Ministry of Works and Housing. Unlike the present *ad hoc* system of schemes, State should be asked to prepare comprehensive State and regional urban development plans to qualify for urban investment allocation, given the overall cost standards. [The latter should take account of different kinds of inter-State variation].

4.56 An initial attempt at both these types of exercises has already been made. The background work for the accompanying Task Force on "Financing of Urban Development" has demonstrated that even with existing information it is possible to make estimates of urban investment costs based on need and certain assumed standards. This exercise has been conducted over just 3 months and the estimates are very rough. Considerable refinement and improvement in estimates should be possible if this process is institutionalised. Similarly, the preparatory exercise for the Madhya Pradesh Urban Development Project also demonstrates that even the existing somewhat unsatisfactory data can serve regional urban development planning exercise. Thus, the approaches being suggested here are eminently practicable and, moreover, they do not lead to astronomical estimates of investment needs.

4.57 The recommendations given below on the institutional mechanisms necessary for these procedures to be followed have given thought to practical realities. These recommendations are given with a fifteen year perspective starting with possible implementation in the Seventh Plan.

Recommendations for Institutional Changes

The National Level

(i) *Planning Commission*

(a) *Perspective and Economy-wide Planning*

4.58 At present, there is no mechanism in the plan process to work out the spatial (regional as well as urban/rural) implications of the sectoral pattern of investment that is envisaged in each Five-Year Plan. Before industrialisation the inter-linkages between different parts of the economy were weak enough to

be ignored in formal economic modelling. As the economy develops denser inter-sectoral as well as spatial linkages, it will be necessary to do this more systematically.

4.59 The only urban rural projections made currently are demographic ones of the expected urban/rural split of population and employment. The results are also used in the consumption sub-model because of the vastly differing urban/rural consumption patterns. However, the system of national accounts statistics as well as other information makes it difficult to do the spatial allocation of activities. Hence the demographic projections are not linked with the other economy-wide macro-economic projections of investment, income and consumption and the projections of sectoral economic activity.

4.60 From now on projections of urbanisation should be undertaken more systematically to integrate them with the economic modelling exercises. Such a procedure would also have important feed back effects in working out the infrastructure and housing implications of the planned sectoral activities along with the implied demands for building materials. Indeed, the importance of urbanisation projections is mainly to provide information for the required infrastructural investments at the right places at the right time—both rural and urban.

4.61. Initially it may not be necessary to build in the urban/rural distinction into the main sectoral model. It would be adequate to, perhaps, build a sub-model which uses the outputs of sectoral model to allocate activities between urban and rural areas and work out the infrastructure investment implications. These could be fed back into the main model at discretion. Over time, as the information system improves and experience with modelling builds up, urban/rural allocations could be integrated increasingly with the economy-wide allocation and consistency exercise.

(b) *Impact of Projects*

4.62. As explained earlier, a great number of industrial and other investment decisions have a major bearing on urban development. It can, therefore, be suggested that just as projects over Rs. 10 crores are subject to project evaluation by the Project Appraisal Division, large projects of over Rs. 50 crores or generating direct employment of over 1000 persons should also be required to file "Spatial Impact" or "Urban Impact" statements. These statements would detail the implied direct and indirect costs of urban infrastructure made necessary by these investments. These impact statements would include the most obvious implications of each project on employment (direct and indirect), basic services necessary for the implied employment, social amenities for the new settlements, communications networks, housing, water supply etc. Impact on existing settlements, both urban and rural, and the relationship between the new settlements and existing ones would have to be considered also. Thus, just as currently the materials, power and other requirements worked out by the economy wide models get translated slowly into specific projects in our planning system, similarly the urbanisation related projections would get translated into specific investments (for new projects) by this mechanism.

(c) *Housing and Urban Development Division*

4.63 If the suggestions made above are accepted it would also be necessary to upgrade the Housing and Urban Development Division of the Planning Commission technically to be able to use the information provided by the perspective plan projections and the "Urban Impact" statements for conversion to specific urban development programmes, projects and schemes. The urbanisation implications would need to be translated into the necessary investments for housing and urban infrastructure. Similarly, the information from the urban impact statements would have to be built in and coordinated within an overall urban development plan, resulting from State and regional urban development plans. At present, the Housing and Urban Development Division is one of the smallest in the Commission. With increasing urbanisation and the need for more systematic planning it is suggested that the Division be strengthened technically with a whole-time technical Adviser made exclusively responsible for these activities. As at present, "Water Supply" should be included with this portfolio, since a considerable portion of urban infrastructure investment is due to water supply provision. Already 6-7% of Plan investment is covered by these sectors and this can be expected to increase in the future to about 10%. Further, if greater coordination is to be achieved than at present, a full time Adviser would be justified as well as necessary.

(ii) *The Ministry of Works and Housing*

4.64. The responsibility for more detailed urban planning and development should rest with the Ministry of Works and Housing. This would become clearer if the Ministry is redesignated as the Ministry for Human Settlements as has been proposed. However, this new role would have to be properly defined and the Ministry would have to be strengthened if it has to play an effective role in overseeing urban planning and development at the national level. It should be the nodal organisation for coordinating action in the matter of major investment decisions having major spatial implications. As suggested above, while the Planning Commission would work out the main fiscal/investment implications and work them into the main plan, the Ministry would work out the more detailed spatial implications and ensure that they are consistent with the investment decisions on infrastructure.

4.65 The Ministry would be responsible for working out the detailed urban investment implications of projected urbanisation at at least the State level. In order to do this it will be necessary to have on-going information on the cost of various standards of infrastructure and types in different regions. Furthermore, it would need information on existing infrastructure to be able to work out needs for the future. Such an on-going exercise means technical strengthening of the Ministry as well as other organisations on whose expertise it can draw.

4.66 The *Town and Country Planning Organisation* would need to be re-oriented and developed as a strong technical arm of the Ministry. Its functions should be extended to include :

- (i) Investment planning for urban development
- (ii) Appraisal of urban projects

- (iii) Setting of standards for urban infrastructure
- (iv) Monitoring of urban projects
- (v) Evaluation of urban projects
- (vi) Constant search and review of innovative urban programmes.
- (vii) Organisation of an Urban Information System

In order to do this its inter-disciplinary character should be strengthened and it would perhaps be redesignated as the "Human Settlements Planning Organisation" or equivalent. It would need equal representation of economists, financial analysts and town planners, along with support from demographers, geographers and statisticians. It would continue some of its consultancy activities in physical planning.

4.67 *Centrally Sponsored Scheme on Urban Development Planning*

A re-orientation of urban development planning will not take place by mere re-naming of institutions. It is therefore necessary to launch a *Centrally Sponsored Scheme for funding the development of new urban development planning capability such that the integration of physical, investment and financial planning as envisaged can take place.* The scheme would cover training and institutional needs arising from this re-orientation at both the central and state levels.

4.68 *Urban Research*

There is great need for both basic as well as applied research as all issues are connected with urbanisation. It is therefore necessary that urban research be strengthened and institutions carrying out such research supported in a systematic manner. There is a wide variety of institutions conducting urban research : Schools of planning, economics research institutes, institutes of management, the institutes of technology and universities. It is noted that the Ministry of Works and Housing has designated the National Institute of Urban Affairs as the nodal institution responsible for urban research. Its role as a clearing house of urban search and collection of data can be strengthened and systematised. It is recommended that new Ministry of Human Settlements should work out procedures for the systematic strengthening of urban research in selected institutions around the country.

4.69 The change in orientation suggested will need the collection and systematisation of data on urban areas to become an on-going and regular exercise. The T. C. P. O. has already assumed responsibility for the organisation of an "urban and regional Information System" (URIS). In addition, the National Institute of Urban Affairs (N. I. U. A.) has also collected a considerable amount of data from the majority of towns in the country on their finances as well as existing infrastructure and service provision. This information needs to be refined and updated at regular intervals.

4.70 The N. I. U. A. is an autonomous institution which should continue to be so. The actual collection of data could be shared by the N. I. U. A. Since it has already succeeded in building an initial data base. Furthermore, the N.I.U. A. should continue basic research on the over all settlement pattern, trends, etc. along with other research projects. The T. C. P. O. should concentrate on planning issues as outlined above.

The State Level

4.71 It has been noted that capacity for urban development planning at the State Level is especially weak. Consequently very serious thought has to be given to the mechanisms by which this would be strengthened in the coming years.

4.72 If urban development planning is to be comprehensive and need based but subject to the usual budget constraints at the same time, a process of information exchange would have to be developed such that the States are able to prepare such plans. Unlike the present situation, urban planning capability should be located within the set up where major investment decisions are taken. In this context it is clear that Town Planning Departments and similar organisations at the State level are quite weak and the linkage between investment decisions and funding is almost non-existent. If such major decisions are taken only at the secretariat, then the machinery for dealing with the consequences of these decisions should also be in the secretariat. If this arrangement is administratively not feasible then utmost care should be taken that this machinery works very closely with the secretariat and there is an inbuilt mechanism to ensure proper co-ordination.

4.73 An arrangement similar to the one suggested earlier for the Centre may be suggested at the State level as well. Responsibility for the various aspects of urban development which are currently fragmented in various departments in many States should be consolidated and brought under one Department of Human Settlements. The State of Madhya Pradesh has attempted such consolidation where there is one Secretary for Housing, Local Self Government and Environment. The Department of Housing has under it a Housing Board : The Department of Environment is responsible for the Town and Country Planning Department, Development Authorities, Pollution Control Board and the State Slum Clearance Board ; Department of Local Self Government works through the Director of Local Bodies and is responsible for all the municipal corporations, municipalities and notified area committees. Different types of arrangements in different states can be worked out according to their own conditions. But it is important that machinery for coordination of all bodies concerned with these urban functions be established.

4.74 As suggested for the T. C. P. O. at the Central Level, the Town and Country Planning Departments (T. C. P. Ds.) should be strengthened technically to perform the following functions :

- (i) The preparation of the Five Year Urban Development Plan and Annual Plans for the State. This would mainly include the State wide investment allocations for different components of urban infrastructure.
- (ii) The preparation of Regional Urban Development Plans for regions in the State.
- (iii) The preparation of physical land use and other plans for smaller towns which do not have their own capability.
- (iv) Advising on physical plans, site and lay out plans prepared by development authorities and local bodies.
- (v) Monitoring and evaluation of urban development projects.

- (vi) The construction of a data base for each town or city, including demographic, social, economic, topographic and land use data.
- (vii) Enforcement of standards, urban regulations, etc.

4.75 In terms of planning the centre point would be the preparation of regional urban development plans. (Disaggregation below the State Level would not be necessary in the smaller States, naturally). As has been mentioned earlier, the larger cities, particularly the metropolitan cities, may be expected to prepare their own plans. Apart from them, urban development planning should be done within the regional context. This would be a much more sensible way of dealing with the subject rather than fragmented programmed for development of a limited number of facilities here and there. In this context, the Urban Sector Study in Madhya Pradesh, which was done preparatory to the recently approved urban development project in the State, may be seen as the type of exercise that is possible within available means. The result was that two key growing sub-regions in the State were identified : the Indore-Dewas region in the West and the Bhilai-Durg-Raipur region in the East. Within these regions, the service levels and other deficiencies were identified within the towns in these regions and investment provision made regardless of town-size.

4.76 The procedure that can be followed to prepare such plans is not difficult and can consist of the following steps :

- (1) Analysis of the economy of the State as a whole by sector : of activity and the location of activities.
- (2) Disaggregation of the demographic patterns and analysis of trends.
- (3) Delineation of regions [Some State Governments have already divided their States] into planning regions. Madhya Pradesh, for example, has ten and inventory of the main activities therein.
- (4) Identification of key urban employment centres within these regions and their activity characteristics.
- (5) Projection of urban growth by region : both population as well as economic growth disaggregated by city.
- (6) Identification of main regions/cities exhibiting growth potential or, conversely identification of regions where growth is constrained by lack of urban infrastructure.
- (7) Inventory of urban services in each region/city :
 - Water Supply
 - Sewerage, drainage and sanitation
 - Solid Waste removal
 - Roads and traffic
 - Power and street lighting
 - Shelter and land development

- (8) Assessment of demand for services and resulting investment, financial and physical plan.
- (9) Revision, iteration, in the light of available resources.

4.77 These steps are not difficult to take even with currently available information. Certain kinds of information are difficult to obtain on a sub-regional basis but a considerable amount of information is available on the basis of N.S.S. regions.

4.78 In some cases, although the information is available, there may not be adequate capability in the existing Town and Country Planning Departments. A centrally sponsored scheme for funding the development of urban development planning capability has already been recommended. This should also be extended systematically to the State Level for the development of similar capability there, just as the original Master Plans were prepared under a Centrally Sponsored Scheme. This could be begun on a pilot basis in about 6-7 States which are facing the more serious urban problems. These could be : Maharashtra, Gujarat, Karnataka Tamilnadu, West Bengal, Madhya Pradesh and Uttar Pradesh. It would be necessary to spell out quite clearly what the exercise would consist of, what the organisational set up should be and what type of persons would be needed to carry out the exercise.

4.79 As these organisations develop and as various plans are prepared the Scheme can be extended to the other States by the Eighth Plan. The result would be that the urban areas would develop within their regional context and investment for urban development would be planned and allocated according to need.

The Local Level

4.80 At the local level, the recommendations for metropolitan planning are given in the next chapter. The accompanying Task Force on "Management of Urban Development" is also giving specific recommendations for planning at the local level. There is consensus that municipal bodies should be strengthened for the planning needs of each town. Once the regional dimensions are spelt out by the State Level planning body, the responsibility as well as authority for planning at the local level should rest with the local body. It will be possible for the local bodies in many of the larger cities to develop their own planning capability in terms of qualified staff. Now that there are 216 class I cities already and that this number is expected to increase to over 300 by 1991, a large proportion of the urban population will be covered by these local bodies. It will, however, be difficult for most of the local authorities in the small and medium towns to afford their own planning staff. It is recommended that the newly revamped and strengthened State level T. C. P. Ds. develop special wings which would act as technical consultants for the local planning needs of the smaller towns.

4.81 The effective implementation of planning at the local level also involves adequate co-ordination of the fiscal capabilities of the local bodies with the implications of a development plan. The Task Force on "Financing of urban Development" is recommending strengthening of local bodies in fiscal terms and is also calling for a more systematic devolution of funds to local authorities. This is for both capital as well as for current expenditures. The Task Force on "Management of Urban Development" is also recommending that capital investments in

urban infrastructure should be the responsibility of local authorities except when such investments are inter jurisdictional in nature. Taken together, what this means is that there must be greater coordination, between development and physical planning at the local level as well, and moreover, this should bear a much closer relationship with the sources of funds available with the local authority or which it knows to be potentially available. The next chapter lays out in some details the mechanisms that may be adopted for such coordination for metropolitan cities. Similar recommendations apply for planning in other cities but inter jurisdictional problems are usually not so severe in these cities and the coordination can be done by the municipal body as well.

4.82 Some comment will be in order on planning at the intra-city or zonal level. Much of city level planning has been of the top-down variety and has often borne little relationship with the needs of people at the neighbourhood level. This has been particularly true for the needs of slum dwellers, who have little say in the pattern of delivery of services to them. The Task Forces on "Shelter for the Urban Poor and Slum Improvement" and on "Management of Urban Development" are commending the widespread adoption of the Urban Community Development programme as a means of delivering services to the poor and of eliciting their participation in planning at the sub-local level. Details of such an approach are provided in the reports of these Task Forces. It is recommended strongly that the urban community development programme should be adopted widely as a means of increasing citizen participation in urban planning at the sub-local level.

Training Needs

4.83 The re-orientation of urban development planning from a largely physical approach to a coordinated physical, economic and financial approach implies an expansion in and change of training facilities for urban planning. It means that there will be much greater need for urban planners with technical background in physical planning as well as economic and investment planning. This means that existing town planning courses in the planning schools should be made broader as, for example, they have been made at the Ahmedabad School of Planning. Furthermore, management training for urban development planning should also be introduced at the Indian Institutes of Management as well as at the L. B. Shastri Academy for Administration. There are, at present, no urban economics courses being offered at any level in any University in the country. Serious consideration needs to be given to the introduction of such courses at the leading economics departments in selected Universities at the M. A. level. This would help in the broadening of courses at the planning schools as well, since many of the students specialising in urban economics, or urban geography, or urban sociology, could be expected to be trained further at the schools of planning.

4.84 There is also need for training of personnel already working in the various existing urban institutions. Training of personnel in the major areas of planning for urban development has been woefully neglected not only in small and medium local and municipal bodies but in large metropolitan cities as well. The prevailing philosophy has been to leave all incumbents to learn on the job as best as they can. This philosophy in its turn has been nursed by elected and nominated Municipal Councillors on two major premises: (1) that their municipality is

special and unique so far as problems and their solutions go ; (2) that they themselves bring men of intelligence but no particular specialisation, it is enough that planners, executives, administrators, policy-makers, supervisors, foremen, etc. should be left to learn on the job and bungle through.

4.85 Institutions like the Indian Institute of Public Administration have, of course, curricula and courses for training incumbents from local bodies. But, if planning for urban development the systematic way that this task force advocates is going to bear fruit in the future, then much more is required than is at present offered by existing institutions.

4.86 The first task in the mid-career training of personnel is to firmly eschew the bias in present-day planning toward physical planning of a city to make it more of a garden city for the happy few and the tendency towards profligate expenditure of land resources merely because they are acquired so cheaply by robbing their owners of the greater part of their legitimate expectations. The second task to be assiduously built into the training curriculum is concern to make a town or city economically strong and productive in the secondary and tertiary sectors, to create and encourage conditions for steady increments in the value added employment of skilled, semi-skilled and even non-skilled workers. The innards of a city, like those of any living organism, are not always exactly beautiful to look at but must be functionally adequate if anything, for growth and health. The continuing accent should be on (1) costs-effectiveness, and (2) benefit cost ratios for any municipal endeavour aimed at economic, cultural and demographic growth.

4.87 For any concerted urban planning endeavour of the kind envisaged in this respect, adequate outlays and personnel must be earmarked for training. This is not possible in just one large central institution but in a number of regional institutions with perhaps an apex institution to retrain and reorient the best products of the regional institutions.

4.88 There should be a network of institutions to undertake among others—

- (i) training in the aims and principles of urban development with prime emphasis on equity, distribution, economic, cultural, and employment growth with right balancing of the secondary and tertiary sectors.
- (ii) Physical planning of urban areas with emphasis on circulation, proper zoning of social, cultural, production and residential facilities, economy of transportation costs and access, and proximity of housing and shelters to place of work, particularly of low-income workers.
- (iii) the most economical and effective use of land and the need for
 - (a) monitoring and publication of land prices and the land readjustment system
 - (b) monitoring of actual land use with reference to those enunciated in the land use plans
 - (c) monitoring of squatting and unauthorised settlements

- (d) evolving principles of pricing parcels of land on the basis of
 - (i) economic costs
 - (ii) declared social objectives
- (iv) Training in the principles and nuts and bolts of
 - (a) municipal Organisation
 - (b) municipal administration
 - (c) municipal management
 - (d) municipal finances and principles of taxation including refinancing and balancing of sectoral heads of revenue and expenditure
 - (e) execution and management of capital projects and modules of projects
 - (f) duties of top, middle and junior level supervisors, foremen, etc.
 - (g) Above all, the preparation of Text-books and Annotated Manuals and Curricula of municipal training.

4.89 It is therefore recommended that the Ministry of Works and Housing, in conjunction with the Ministry of Education devise a specific plan for the expansion of training for urban development planning on the above lines during the Seventh Plan. Specific funds should be allocated by the Planning Commission for this purpose keeping in view a 15 year perspective for the needs of such training.

Information System for Urban Development Planning

4.90 Urban development planning within the framework of overall development planning in India would necessitate the setting up of an Urban Information System (URBIS). The system, may start its work by compiling systematically the data available with the central level data collection/compilation agencies like the Census, Central Statistical Organisation (CSO) etc. There are serious problems of inter-sectoral as well as inter-state comparability with regard to a segment of this information base. The data on workforce, its distribution among various industrial categories (at the two digital level of NIC classification), the distribution of industrial establishments among these categories, may be mentioned as illustrations. URBIS would have to retabulate the data on the basis of highly disaggregated information and by using comparable definitions of various concepts at different points of time. One other task of URBIS would be to procure from various Central and State Government departments and local authorities data that are collected for various administrative purposes but never published nor used in the planning process. These data should be systematised and published.

V. PLANNING FOR METROPOLITAN AREAS

Problems in the Existing Approaches to Metropolitan Planning

5.1 As we have seen, planning in metropolitan areas now largely consists of land-use planning as an aid to development control. The standard practice is to prepare Master Plans for a relatively long period of time like 20 years. The land allocation is primarily based on population forecasts and relatively weak projections of economic activities: usually devised in terms of employment which is itself derived from population forecasts. These forecasts are converted into various types of land requirements based on absolute *a priori* norms such as density, open space per unit of population and schools, health facilities, markets etc. also for per unit of population. This approach, as we have already noted, has suffered from two key problems. First, there is no connection between the investment implications of such a Master Plan and resource availability. Moreover, since these land requirements are derived from an end state twenty years hence, they are not responsive to resource availability (assessing resource availability for a twenty year period is itself a difficult, if not useless, task). Second, the land use allocation exercise and the standards used do not deal adequately with the prevailing socio-economic conditions in the city: where people live, what they do, and where they work. It would, therefore, be desirable that metropolitan planning in the future is re-oriented to take account of such key shortcomings.

5.2 The preparation of an urban development plan is essentially to allow for the orderly expansion of the city under conditions of expanding population and economic activities. Such a process must take account of the existing pattern of a city as well as socio-economic conditions of the people—both in terms of their pattern of employment as well as their residence, along with the physical potential of development in the city. The manifestations of these spatial concerns then have to be coordinated with the availability of resources. The lack of resource awareness and the notion that all space requirements are “absolute”, affects the very essence of planning as a process which allocates limited resources taking account of priorities in varieties of land requirements or possibilities of trade-off amongst them.

5.3 The impacts of such a style of planning are many :

- (a) Excessive space norms make services land so expensive that a large section of low income people cannot afford it. For example, the stipulation for open space in Bombay is at the rate of 15% of gross area + 1 acre per 1000 population. This puts the proportion of open space itself at over 40 per cent at reasonable densities.
- (b) Large tracts of land which are notified for future use over the twenty year period are often beyond the capabilities of the local authority

to acquire and develop; what is worse, they invite unauthorised development—and not necessarily by the poor.

- (c) The use of unrealistic standards unrelated to income levels and ability to pay on the part of the city or its people leads to the development of only selected parts of the city. Thus, vast areas of the city remain unserved for long periods of time even after people have begun to live in these areas.
- (d) Since overall resource availability is not explicitly taken into account, it is conveniently assumed that all land development for public purposes is to be directly financed through local government finance. Innovative methods which make use of real estate dynamism such as bonus F.S.I., transfer of development rights, etc. are seldom thought of.
- (e) The assumed desirability of unifunctional land use, separation of land use and provision of a “desirable” urban environment in terms of unrealistic norms of aesthetics leads to a downgrading of the key economic functions of a city; industrial production, trade and commerce and the provision of other services. While encouraging un-economic and wasteful use of valuable urban land, this results in curtailing the options of people to devise ways and means of increasing their productivity and thereby pay for urban services, especially at the lower rungs of the economic ladder.
- (f) The forced separation of residence and work place ignores the realities of the current Indian situation. In an economy where a large percentage of the population is still dependent on self-employment or household production, residences are essentially centres of both consumption and production. The restriction of the use of residential areas for exclusively residential purposes renders their use for other purposes illegal or extra-legal by definition. This leads to unnecessary constriction of a host of essential economic activities that are actually carried on in these areas.

5.4 The net result is that Master Plans often remain on paper and are seldom capable of being implemented effectively. These shortcomings are not merely the result of the methodology of planning followed : as already discussed, they also result from the existing institutional set up for urban planning and resource allocation which is not conducive to an integration of physical and investment planning.

5.5 Of the 12¹ metropolitan cities that exist at present, 10 have metropolitan or urban development authorities which are responsible for preparing the long term land use plans. Only Nagpur and Poona still do not have metropolitan level development or planning authorities. The pattern of responsibilities exercised by each of these authorities is quite different depending on the historical

1. Calcutta, Bombay, Delhi, Madras, Bangalore, Hyderabad, Ahmedabad, Poona, Kanpur, Lucknow, Nagpur, and Jaipur.

evolution of each. The Calcutta Metropolitan Development Authority (CMDA) and the Delhi Development Authority (DDA) are responsible for the execution of works as well as for planning. The Madras Metropolitan Development Authority (MMDA) and the Bombay Metropolitan Regional Development Authority (BMRDA) are mainly coordinating and planning agencies. Among the others, although the overall planning responsibilities rest with these Development Authorities, their operations are largely concerned with the development of the peripheral areas often outside the jurisdiction of the existing municipal authorities. Thus, typically, their energies are diverted from the key issues and concerns of planning to the day-to-day problems of land acquisition, development and disposal at the periphery. These Development Authorities are the creation of State Governments and are largely insulated from the existing municipal corporations. Thus, their planning activities get necessarily de-linked from the availability of local finances.

5.6 Although the planning responsibility rests with these authorities, the planning of investments and allocation of capital funds is essentially done by the State Governments in the usual 5-year national planning cycle and through the annual plans. At the city level, there is usually a multiplicity of agencies responsible for different components of infrastructure investment. In most cases there are state or city level housing agencies, water supply and sewerage boards, road transportation authorities, etc. In addition to these, there are Government departments like public works departments, railways, port trusts, etc. which are also involved in different kinds of public investments. Thus, urban development in the sense of integrated resource allocation and investment in various infrastructural services becomes a will-o'-wisp in the present institutional set-up. The absence of a "Metropolitan Sub-Plan" budget head in State plans makes it difficult to coordinate public investment in these cities. The metropolitan authorities simply do not possess the power or expertise to do the required coordination between the investment plans and physical plans at the city level. The problems faced by them may be summarised as follows:

(a) the sources of funds for various investing agencies are different such as local tax resources for local authorities, state plan allocations for government departments, plan allocations plus institutional finances raised by the functional quasi-Government agencies, and central resources for central government departments. This multiplicity of sources of funds make nonsense of effective allocation of all available resources for a given area;

(b) resource allocation for State agencies is largely done in the five year allocation cycle of State Plan formulation. However, actual investment in a given area is based on the annual project related budget cycle followed by the individual agency;

(c) although resource allocation takes place in a five year cycle (with a short-term annual budget sub-set), investment in most infrastructure projects requires long gestation periods. The project formulation itself is a time consuming activity to which the actual investments are required to be related. In most circumstances, there is no agency at the local level which could project the demand for infrastructure needs, translate it into resource requirements, and set-up priorities within the local context; and

(d) even if such an agency exists, it is difficult to influence the investment allocation of State level quasi-autonomous agencies through such a local agency.

5.7 In view of the above complexity, physical planning at the local level is either reduced to an exercise for narrow land-use planning and residual infrastructure provision, or the attempts to have an integrated physical and investment planning result, at best, into persuasive advocacy documents. For effective integration of physical planning, and investment planning, the present institutional set-up is not very conducive. However, it is equally difficult to suggest an institutional set-up which has universal applicability that can achieve the desired objective.

5.8 Another set of problems that arises from the current mode of physical planning is the lack of participation by the people in the planning process. The existence of metropolitan development authorities has reduced the importance of the municipal bodies in the planning and investment process. Thus the mechanisms for consultation with large sections of the people are totally absent. A good case can be made out for the initiation of more participatory planning in the delivery of services at the sub-local level.

Towards Better Approaches to Metropolitan Development Planning

5.9 All the problems alluded to above necessitate a thorough new look at the procedures currently used in the planning of metropolitan areas and the evolution of approaches and methods more suited to the new imperatives arising from intensification of urban growth all over the country. It is virtually certain that eight to ten more cities will cross the million population mark within the current census decade.¹ Hence great demands will be made on the planning capabilities available in the country.

5.10 The review above reveals the following key problems that have to be tackled :

(i) Coordination of city level investment plans with higher (state and central) level planning and resource allocation exercises.

(ii) Coordination of city level investment plans with resource availability and with physical planning.

(iii) The fostering of a closer relationship between the norms and standards used in physical planning with the socio-economic realities prevailing within our cities. More explicitly, the needs of the poor must be accounted for more specifically in all physical planning exercises.

5.11 The concurrent Task Force on "Management of Urban Development" has paid considerable attention to the institutional arrangements that are necessary for metropolitan planning. We strongly endorse their recommendations in this regard since the institutional measures they have suggested are vital for the initiation of better planning.

1. As shown in Chapter III, these are Coimbatore, Patna, Surat, Madurai, Indore, Varanasi, Jabalpur, Vadodara and possibly, Agra, Dhanbad and Bhopal.

Coordination of State and City Planning

5.12 A more organised dialogue needs to be established between the metropolitan authorities and state governments. This would be assisted if the State Plan should include a Metropolitan Sub-Plan (on the lines of the Tribal Sub-Plan) for each metropolitan city in the state. It would, therefore, be necessary for the State Government to direct the quasi-autonomous functional agencies to prepare capital investment plans for the metropolitan areas based on the availability of resources as indicated by the State Government as well as the availability of institutional finances. This would necessarily be an iterative cycle which should begin somewhat in advance of the usual 5 yearly cycle of the preparation of 5 year plans. The necessity of preparing such a plan would automatically induce a dialogue between the local metropolitan authorities and the various functional agencies (including agencies responsible for power, telecommunications, transportation, etc.).

5.13 The last chapter has suggested the preparation of an urban development plan for each state on regional lines. The suggestion for a metropolitan sub-head in the State Plan is not inconsistent with this idea. Indeed, each metropolitan area would merely constitute a region among the various regions delineated in the State. However the particular attention to the preparation of metropolitan plans being recommended is necessary because of the complexities of inter-sectoral and inter-spatial coordination that is necessary for the efficient functioning of large cities.

5.14 The key focus in the preparation of the metropolitan sub-plan at the state level is the advance assessment of the availability of budgetary resources for metropolitan development. The provision of this information to the metropolitan authority would enable it to assess the feasibility of raising the necessary resources from other sources such as institutional funds¹ as well as the generation of funds from land development and other activities.

Coordination of Investment, Financial and Physical Planning at the City level

5.15 As mentioned in the last section there is currently a wide variety in the types of metropolitan-wide authorities that exist in the different metropolitan cities in the country. It is, therefore, difficult to provide a uniform recommendation for all the metropolitan cities. It is clear, however, that there is need for a metropolitan planning authority (henceforth M.P.A.) which accomplishes all the coordinating tasks mentioned above. As suggested by the Task Force on "Management of Urban Development" such an authority should not be an executing agency: the capital works implied in a plan should be carried out by the relevant municipal bodies or functional bodies as applicable. The function of the M.P.A. should be to prepare a Five Year Plan coterminus with the national and State Five Year Plans.

5.16 The following measures would need to be taken for the M.P.A. to accomplish this :

- (i) The M.P.A. should first prepare a long term perspective structure plan² for the city in order to lay out the broad developments expected over a 10-20 year period.

1. It is important to note here that the Task Force on "Financing of Urban Development" is giving a strong recommendation for establishing an Apex Urban Development Financing Agency.

2. This has been done, for example, by the Madras Metropolitan Development Authority.

- (ii) More specifically, this should be broken down into 5-year segments coinciding with the national 5 year planning cycle.
- (iii) The physical plan should then be converted into an investment plan for the 5 year period and consequently a financial plan.
- (iv) Each local authority responsible for capital investment in the metropolitan area should then prepare a capital investment plan within this framework after taking into account its revenue generating ability. While so doing, specific attention may be paid to institutional finances that are available and the debt servicing burden that will be cast on the local authority. It is in this context that the M.P.A. should communicate its assessment of State level of finances available.
- v) The M.P.A. should on the one hand help the State Planning or Urban Development Department to coordinate the investment planning of various sectors and agencies for a particular metropolitan area, and on the other examine technically the functional agencies' plans to see that the resources are used to provide efficient and equitable delivery of services.
- (vi) For the above process the sectoral allocations for the metropolitan area will have to be flexible so that inter and intra-sectoral re-allocation is possible depending upon the priorities redetermined by the M.P.A.
- (vii) This process of converting physical plans into investment plans on the one hand, and investment plans into financial plans on the other will result in an iterative revision of norms, standards and the extent of development feasible within the available resources.

To this end, it will be necessary for State Governments to vest M.P.As with sufficient authority. The key to the success in such planning coordination lies in the matching of costs of development to the ability of the people to pay (through taxes as well as user charges) on the one hand and to the utilisation of funds currently available on the other. This might seem somewhat complex to begin with but soon becomes a habit as in other spheres of development planning.

Suggested Procedures for Realistic Metropolitan Planning

5.17 In order to achieve the coordination between physical and investment plans that is suggested above, a broad checklist needs to be examined briefly. Cities must be planned as centres of production and exchange rather than as centres of consumption for the elites. The concepts of "City Beautiful" and "Garden City" have plagued the preparation of plans which are supposed to serve the needs of the population residing in our cities. There is a clear need for articulating the concept of "public interest" more explicitly. Frequently, irrational decisions or decisions favouring specific interest groups are justified by urban authorities on the basis of their being in the "public interest". It is seldom clear which "public" or who from among the public is going to benefit. A case in point is the frequent removal of "slums" or "low income settlements" from certain locations to place the same land under use as gardens or upper/middle income housing. A crucial issue in planning then is how to ensure that metropo-

litan planning caters to the needs of all income groups of the population with respect to shelter, employment and the distribution of public services.

5.18 Even physical planning must be done with the imperatives of the prevailing socio-economic realities in mind. What is vital is the collection of appropriate information on :

- (i) The distribution of income in the city.
- (ii) The pattern of residential location by income groups and other socio-economic groups.
- (iii) The pattern of employment location—by occupation, industry groups, etc.
- (iv) The pattern of residence-work and other transportation resulting from the residence/employment location pattern found above.
- (v) The availability of shelter and services by income group and location.
- (vi) The available finances in the city.

5.19 All this information can be collected in a comprehensive household/employment sample survey on small statistical sample which should be conducted in each of the metropolitan cities every 5 years, preparatory to the planning exercise. A judiciously and scientifically selected half to one percent sample should in most cases prove adequate for such purposes. If the results from such a survey are available along with the usual census information, a suggested procedure for initial metropolitan planning might be :

- (i) *Population Projections* made realistically over the plan period.
- (ii) *Residence Location and Demand for land and Housing*
 - Assessment of demand for housing by income group according to ability to pay.
 - Projection of such demand for existing as well as expected population.
 - Delineation of various alternatives for the distribution of the additional population in new as well as existing areas.
 - articulation of different housing strategies for satisfying additional demand as well as backlog.
 - inventory of supply of land available for development: new land as well as possibilities of classification.
- (iii) *Employment Location*
 - Projections of the expanding economic activities in light of increases in population.
 - Distribution of the expansion in economic activities by occupation and industry.
 - Distribution of the expanded employment by location.
 - Demand for land for different economic activities by location.

(iv) *Transport*

- The provision of transport links (roads as well as equipment) to serve the emerging pattern of employment and residence location arrived at in (ii) and (iii).
- projection of mode split according to demands for different kinds of transport needs.
- projection of transport investments required.

(v) *Provision of Public Services*

- the provision of water supply, sewerage and sanitation, electricity, drainage, land development, etc. in the light of decisions in (ii) and (iii).
- alternative cost implications of the different alternatives considered in (ii) and (iii).
- costing of different kinds of norms.

(vi) *Financing of Public Services*

- preparation of investment and financial plans in light of (i) to (v) above.
- iteration of (i) to (vi) depending on resource availability and allocation.

5.20 Steps (i) to (iii) have to be taken in order to arrive at (iv), (v) and (vi) which are really the key concerns of MPAs. The problem that arises, of course, is that decisions in (i), (ii) and (iii) depend on decisions taken in steps (iv) to (vi). The latter decisions are strategic decisions which, to some extent, have to be supplied to planners as part of an iterative process. There needs to be a clear articulation of objectives by the M.P.A.

5.21 In order to achieve the coordination between physical and investment plans that is suggested above, the detailed procedures of planning need to be examined and guidelines issued. A Centrally Sponsored Scheme for the development of urban development planning expertise at the Central and State Level has already been recommended. This scheme should specifically include the promotion of techniques and personnel for metropolitan planning on the above lines. Model procedures for metropolitan planning should then be worked out so that they can be institutionalised in M.P.As as experience is developed.

5.22 The Centrally Sponsored Scheme suggested above for the strengthening of urban development planning capability should include provision for pilot household surveys in selected cities over the Seventh Plan period. It is also necessary to take steps to improve the access of metropolitan authorities to City Level data from national sources of information such as the National Sample Survey, the decennial population census, and the Central Statistical Organisation. In particular, it is important that access be given to the 1981 Economic Census at the city level before it becomes dated.

5.23 The 12 existing metropolitan cities are conveniently located in a mosaic of geographical regions in the country. The addition of 8 or 9 more cities into this group by 1991 will further improve their geographical distribution such that, each region will then be served by a large city. It is, therefore, important that in addition to the intra-city exercises suggested above, detailed geographic and economic analysis of these metropolitan regions be initiated in order to be able to make recommendations for:

- (a) integration of communication, transport, energy and other infrastructure in the region to bring about better interdependence in the hierarchical structure of the different areas of the region.
- (b) assessment of the types of industries and other activities that are more suitable for location in metropolitan areas. The present policy of banning the location or expansion of industry in cities with population exceeding 5 lakhs can then be modified on this basis.
- (c) assessment of the type of industries and institutions that should be assisted to take root in smaller cities and towns of the region, that would interlock with each other and the rural hinterland and make optimum use of locally available resources.

5.24 This should preferably be done under the auspices of the Planning Commission which may seek the collaboration of bodies like the ICSSR, IITs, IIMs, Universities, research institutes and other special foundations interested in this issue.

VI. COORDINATION OF INDUSTRIAL AND URBAN DEVELOPMENT

Introduction

6.1 The link between urbanisation and industrialisation was demonstrated in Chapter I and has been substantiated in Technical Appendix. I. Policies concerned with the location of industry are not now coordinated with the provision and funding of urban services, nor with associated, communication and transport facilities. The converse is also true. As already observed, the selection of towns under the Integrated Urban Development Programme (IUDP) or the Integrated Development of small and Medium Towns (IDSMT) has not been linked with any industrial dispersal schemes. Similarly, the urban development projects in Calcutta, Madras and Kanpur have had little linkage with the requirements of industry in these cities.

6.2 Decentralisation of industry has been an explicit aim of the government for a long time. Entrepreneurs are given attractive incentives to locate in backward areas. These incentives include low interest rates on loans from term lending institutions, priority in the granting of loans, income tax concessions, capital investment subsidies and transport subsidies. Further, different State governments offer additional incentives to firms to encourage location in the backward areas of their States. Another measure for the deconcentration of industry has been the provision of industrial estates in outlying areas. But even these have not produced extensive decentralisation, although, as documented in Chapter IV, there has been considerable deconcentration of industry in India but not always in the direction or magnitude intended.

6.3 The analysis of the 1981 Census at the regional level, given in Chapter I, reveals different regional patterns of urbanisation. On the one hand, are the agriculturally dynamic regions like Haryana, Punjab, and Western Uttar Pradesh, where most of the industry and employment in urban areas has been triggered by the initial growth in agriculture. On the other hand are the agriculturally slow growing regions like Eastern Uttar Pradesh, Bihar, Orissa and Madhya Pradesh where urbanisation is taking place without significant growth in agricultural productivity and incomes. A closer examination of these regions given in Chapter VII shows that the fastest urbanisation is occurring in regions like Eastern Madhya Pradesh, Southern Bihar, and Northern Orissa where major public sector large industrial investments have been made. Other regions in these States like Eastern Uttar Pradesh and Northern Bihar are essentially stagnating in terms of agricultural growth but there is some evidence of acceleration in the rate of urbanisation. Clearly the need for urban development and industrial measures would be very different in each of these regions and sub-regions. In the stagnating regions, there is need for special employment generating measures in the relatively fast growing towns that are located here.

6.4 In view of all this given the links between the provision of social and physical infrastructure and the location of industry, it is imperative that industrial location measures should be linked with urban development programmes. This reinforces the recommendations made in Chapter IV concerning the preparation of urban development plans at the State and sub-regional level. Only if this is done will it be possible to take into account the requirements of planned industrial activities in the allocation of urban infrastructure investments. Provision of appropriate physical and social infrastructure is a matter of detailed planning to be done at the sectoral and city/town levels, and has different dimensions. Appropriateness connotes adequacy in terms of capacity and quality of available infrastructure in a given period of time to sustain and support industrial and urban activities at efficient levels. In the context of planning, however, the meaning of appropriateness acquires a different sense; that is effectiveness in inducing industrial and urban development along pre-determined patterns over a period of time. The agencies involved in industrial, urban and infrastructure development planning are necessarily large in number. So also are the levels of decision making. From the operational point of view coordination at the city/town levels between the various agencies and decision-making tiers poses considerable problems. There are, for example, such diverse agencies as urban development authorities, industrial development corporations, financial institutions, infrastructure development corporations, electricity authorities, and zonal railway authorities etc. whose policies and working plans need to be synchronized and dovetailed. The task is too complex to be amenable to administrative arrangements and devices adopted at the field level. Therefore, coordination between the concerned agencies should be brought about the State level as a part of the overall planning process.

6.5 Different types of physical and social infrastructure are required for industrial and urban development. Some are required for industrial and urban development. Some of these are essentially site-specific, while others form part of larger connective networks. Some infrastructure require commitment of large quantum of scarce resources and are lumpy in nature. In other words, the policy for provision of physical and social infrastructure involves larger issues which are beyond the competence of sectoral and city/town decision-making levels.

6.6 Some of the possibilities of linking industrial development with the provision of urban infrastructure are examined below. In view of the discussion above, these are divided into two parts : "local level links" and "higher linkages."

Local Level Links

6.7 The possibility of forging a link between industrial and urban planning depends on the extent to which the two processes can be controlled by public authorities. This possibility of control varies from case to case and, in order to proceed further, some typology of industrial growth (as it impinges on urban planning processes) is necessary. This has been attempted in Table 6.1

which contains some data on the growth of urban population in selected industrial centres which are classified into the following categories: —

- (i) Steel towns.
- (ii) Other towns with large industrial projects.
- (iii) Towns with industrial area development for large and medium industries.
- (iv) Industrial town on the outskirts of a metropolis.
- (v) Centres of small-scale industry.

Metropolitan areas and large industrial cities like Bangalore, Hyderabad and Ahmedabad are deliberately excluded since they would share the characteristics of two or more of the above categories. Even in the case of the towns included in the Table the classification is approximate and involves a judgement of the dominant feature of industrial development rather than its total character. The nature of the planning problem and possible solutions varies for these cases and we deal with them separately in what follows.

Steel towns

6.8 Steel towns are a class apart. Generally Indian steel plants have been set up in virgin areas where the urban population is negligibly low to start with though there are exceptions like the Vishakhapatnam Steel Plant. A large integrated steel plant typically employs 20,000 to 30,000 workers who along with their dependents, may constitute a fair sized town. Hence a location decision on a steel project implies the establishment of a new town and arrangements for planning these new towns have to be built into the project planning exercise. This is in fact done and township costs constitute nearly 7 per cent of the gross fixed assets of integrated steel plants.

6.9 The integration of the urban planning exercise with industrial project planning carries one major danger. There is a temptation to limit the planning exercise to the housing, social welfare facilities and neighbourhood shopping required by the workers directly employed by the steel plant. This is quite inadequate. The data given in the Table shows the rapidity with which urban population has increased in the steel plant towns, each one of which is now a large town. Moreover, their population size is far greater than the steel plant workers plus their dependents. The four public sector steel plants between them employ over 1.6 lakh workers, which, with a dependency ratio of 1 to 3 would mean a population of 4.8 lakh. But in practice the four steel plant towns have a population of nearly 14 lakhs. Part of it is of course construction labour working on projects. But even allowing for this it is clear that half or more of the population is there on account of activities stimulated by the steel plant. Workforce outside non-household manufacturing was in the 45—65% range in 1971 (excluding Bokaro which was under construction and where the proportion was even higher). It is therefore essential that the planning exercise for such new industrial towns linked to steel plant (or similar projects) must (a) allow for a population size much larger than that attributable to the steel plant (b) a large range of economic activities linked to but not part of the steel plant.

6.10 The steel plant management's primary objective is to run the plant efficiently and profitably. With regard to urban planning their horizons may justifiably be limited to township planning for their workers. In fact, the B.P.E.¹ guidelines on township planning tend to reinforce this attitude. Generally, there is no municipality or urban planning authority in the local area which can undertake this task.

6.11 Company towns are usually well planned so far as their own population are concerned. In fact Jamshedpur has often been considered a specially salubrious and comfortable city. Yet a steel town is much more than a company township and a wider framework for urban planning is required.

6.12 One possibility would be to undertake the new town development as a separate project which would be planned, executed and administered by a separate authority constituted in the same manner as other urban development and planning authorities. The responsibility for infrastructure development would rest with this authority. The steel plant management would be given certain areas of land for constructing houses and other amenities for their workers. Alongwith this the UDA could lay out other industrial commercial and residential areas not connected with the steel plant. One difficulty that could arise with such an arrangement is that the UDA may be starved of funds and may not take up the development of urban infrastructure in phase with the steel plant. In order to avoid this a part of the sum that would normally be a part of the usual township costs may be provided directly to the UDA by the Central Government and earmarked for specific activities. Moreover, to ensure coordination, the steel plant management could be included in the controlling Committee of the UDA. If such an arrangement can be effected there may be greater degree of coherence in the planning of new towns linked to steel plants. Procedures should also be laid down for the municipalization of these towns in good time.

Other town with Major Projects

6.13 Major projects other than steel do not generally involve the establishment of a large new town in a virgin area. The mineral based projects are often based in remote areas away from existing centres. But typically the number of employees is quite low. A large petroleum refinery may employ only 1500 or so workers. A large cement plant may employ around 1000 workers. The huge Kudremukh mining project employs only 1600 or so workers. Engineering projects are often much larger in terms of employment. But enjoying some flexibility in their location, they are set up near existing urban centres of some size also for drawing on local semi-skilled or skilled urban workers. For instance the BHEL² plants which between them employ around 55,000 persons are at Bangalore Hyderabad, Trichy, Hardwar and Jhansi. The HEC³ plant which has over 20,000 workers is at Ranchi.

¹ Bureau of Public Enterprises.

² Bharat Heavy Electricals Ltd.

³ Heavy Engineering Corporation.

6.14 These major projects may not be large enough to require a new town; but they can and do affect the pace of urbanisation in the urban centres near them. This can be seen in the data given in the Table for Ranchi, Bhopal and Hardwar. The sharp acceleration in urban growth after 1961 in Ranchi and after 1971 in Hardwar matches the timing of HEC and BHEL, Hardwar. In Bhopal, which has had a more sustained tendency towards high growth and in Trichy, the impact of the BHEL plant has not been so significant. The next three cases are of centres where the new major project did not involve a very large workforce (the specific projects are cement for Neemuch, a textile complex in Nagda and a petroleum refinery in Begusarai). These are swelling, too, but not so rapidly. Kota and Bhatinda are similar cases except that they were already urban centres of some consequence when the new project came (after 1961 in Kota and after 1971 in Bhatinda). Korba and Dhanbad show the sharp acceleration of urban growth in coal mining regions.

6.15 The cases covered under this category generally involve the establishment of a township near the project site which is often on the outskirts of the nearly urban centre. This sort of development of relatively isolated townships can be seen in Baroda, Hyderabad and Bangalore. Water supply, sanitation and social services for these two townships are also planned exclusively and independent of the urban centre. This isolation has had several consequences. Firstly, the township cannot use effectively the services facilities available in the urban centre, particularly in the central area. Secondly, the urban centre cannot benefit from the facilities created to service the township.

6.16 What is meant by integration in these cases? Firstly, it means that the likely impact of the project on immigration, generation of direct and indirect employment, transportation and other service activities must be assessed. Secondly, the implication of these on investment requirements for houses, roads, water supply, sanitation, social services, etc. have to be worked out. Thirdly, the responsibilities for undertaking these investments has to be apportioned between the urban development authority and the project management. Fourthly, a mechanism to find the additional requirements of the urban development authority has to be established.

6.17 The integration will have to be secured by negotiations and collaborative efforts at planning by the local authority and the project management. As for funding there is a case for setting up a Central scheme for project-linked urban development which can provide resources to the local authority undertaking its part of the assigned responsibility. The project authority would obtain the funds for its responsibilities as part of the project costs.

6.18 The coal belt has certain special problems which require a wider framework. Individual coal projects are not large but taken together they do mean a large increase in 'urban' population. There is also now the growth of power generation and other activities in coal areas. Such areas of concentrated development are readily identified. They are mainly in the Damodar Valley in Dhanbad and Burdwan, around the Singrauli coalfield in UP/MP and Singareni in Andhra Pradesh. In all cases what is required is a regional plan for housing, urban development and transportation. Two of the three regions are inter-state in

character and a strong element of Central intervention will be required. There is a case, in the coal belts for setting up a regional urban development authority with Central participation.

Towns with intensive industrial area development

6.19 The third category is similar to the second in that an influx of medium and large industries leads to rapid urban growth. It differs however in the fact that the impact is not that of one or two very large projects but of several smaller ones. Hence a linkage based on collaborative effort by project managements and the local authority may not be workable.

6.20 There are many areas in the country where such developments have taken place. Table 6.1 also presents data on three of them where the impact seems to be substantial. All three are in Maharashtra. The first two were taken up for intensive development by SICOM¹ after 1971. The third is an off-shoot of Pune which started growing earlier in the sixties. All three are largely a consequence of a deliberate industrial location policy pursued by the State Government.

6.21 The development of industrial areas and industrial estates has been undertaken by practically all State Governments. Their decisions on the location of these areas/estates is sometimes based on their assessment of where industry will want to move and sometimes on where they think it ought to come. Planning for these estates does not normally go beyond land development, laying down of power and water supply systems and sanitation and some limited infrastructure facilities. The implications of industrial growth on urban development are seldom taken into account or allowed for in the development plans. Responsibilities are also fragmented and the industrial areas/states are often developed by a corporation which has no links with the Urban Development of the State Government or the local authority. There are some exceptions however. In Maharashtra an attempt has been made to undertake simultaneous development of industrial areas and related urban infrastructure, e.g. in Aurangabad. However, such cases of integration are very few indeed.

6.22 The rational answer to the planning problem in these cases lies in integrated planning of industrial and urban infrastructure in the context of an overall urban development plan. The entire exercise should be undertaken by one agency which should be the local authority. The industrial promotion organisation would be given some land by the local authority. The development of housing, commuter transport facilities, water supply, sanitation, etc. would be undertaken by the local authority which would be specifically funded for this purposes. If necessary special state level schemes for Urban Development in Industrial Areas may be set up to provide a channel for such finding. As has been recommended earlier the coordination of these investments as well as allocation should be done at the state level in the preparation of the regional and state level urban development plans.

Industrial Towns on the Outskirts on Metropolitan Cities

6.23 This category like the previous one generally involves the inflow of a large number of units each one of which, by itself, does not add much to urban

¹/State Industries Corporation of Maharashtra.

population. The difference however is that the industrial towns in this category are a part of a large metropolitan area and the 'urban' impact of industrial jobs is diffused throughout a large structure.

6.24 Fringe development of this type has been particularly marked around Delhi and Bombay. The data given in the Table show the rapidity of population growth in towns like Faridabad and Ghaziabad near Delhi, and Thane and Ulhasnagar near Bombay. All of these towns have grown largely because of the growth of industrial employment.

6.25 The planning problem in this case cannot be tackled by taking on an urban infrastructure and housing component to industrial area plans. This is because these towns are part of a larger metropolitan area and the urban impact of industrial jobs is not localised. The rational answer to the planning problem in these cases lies in the development plans for the larger metropolitan region (the NCR in the case of Delhi and the BMR in the case of Bombay). These larger development plans should cover the planning of industrial areas, housing, transportation, water supply etc. on a regional basis. A separate, partial exercise for a sub region within the metropolitan region, may be justified but only as part of an overall planning strategy for the whole region.

6.26 We have most of the rational answers in theory. In practice, the metropolitan regional plans lack bite and much of the development in fringe areas is unplanned and sometimes unwanted. The urban pressures arising from these development are met by piecemeal solutions. What is required now is not special schemes which will reinforce this piecemeal approach but a serious attempt at strengthening the framework of metropolitan regional planning.

Centres of small scale industry

6.27 This last category poses in many ways the most difficult planning problem. Developments are diffused and difficult to predict. Often the industrial units are scattered through the city and do not necessarily congregate in a designated industrial area. The units are far too small to be able to contribute much by way of housing or other facilities.

6.28 There are a large number of such centres and the Table gives data on a selected cross section. Surat is a centre for art silk and diamond cutting, Ludhiana for woollens, Batala for machine tools, Tohalkaranji for textiles and engineering, Malegaon and Bhivandi for powerlooms. All of these are centres of modern small-scale manufacturing. The growth pattern varies and reflects the fortunes of the industry on which they are dependent. With the exception of Surat, which is larger and more diversified, the others showed rapid growth between 1961 and 1971 and some deceleration thereafter. The last four cases are traditional manufacturing centres. Firozabad, a centre for glassware and Khurja, a centre for pottery are not entirely handicraft based places. Cannanore is a centre for handlooms and Bhadohi for capets. The growth rates in all these cases seem lower than for modern small-scale industries possibly because the skilled persons are already there in the towns and growth only means more intensive employment rather than immigration.

6.29 There is no simple answer to the planning problem in these centres of small scale industry. The main problem lies in the difficulty in predicting the likely growth in employment, immigration and urban population and in assessing urban impact because of the diffused location of units within the urban centre. These difficulties reflect the lack of control over the industrial growth process. All that can be suggested is that in all such centres the local authority should build up some expertise on the two or three major small scale industries in the area. On the basis of this expertise they can form assessments of national or regional trends in the industry, its technological compulsions, its requirements of power, transportation, water and sanitation, the type of labour force required, etc. These assessments can then be taken into account in the preparation of urban development plans. Moreover, in many of these towns, the provision of urban infrastructure will typically follow the growth of industry. At a minimum the preparation of state and regional level urban development plans should take retrospective account of the activities that have grown already and provide for the required infrastructure.

Higher Level Links

6.30 The discussion so far has concentrated on how urban planning and industrial planning can be linked at a local level. Certain mechanisms for forging links have been suggested. However, such local level links may not be enough. Many of the decisions on outlays and strategies for urban development and industrial development are made at a higher level in the apparatus for State planning and Central planning. It is necessary to ask whether some link between urban and industrial planning is required in the methods and organisational arrangements for plan formulation.

6.31 The link between urban and industrial development can be articulated only if National and State plans articulate clearly the prospective pattern of industrial location. This is seldom the case. The location of certain major projects is known but the bulk of the increase in industrial employment comes from smaller projects and private sector activity whose locational pattern is not analysed in the National or State plans. An important reason for this is our lack of understanding of the determinants of location decisions. The Central and State Governments do have policy instruments which will influence location decisions e.g. industrial licensing, various subsidy schemes, development of industrial areas/estates. However, the quantitative impact of these schemes is difficult to forecast. In any case, even if the prospective pattern of industrial location could be forecast or controlled, there are further difficulties in assessing the quantitative impact of industrial growth on immigration and urban growth.

6.32 The linkage that is really required in Central and State plans relates basically to public sector outlays and policies on industrial location and urban development. For instance, if the location policy seeks to shift industries away from metropolitan areas towards medium sized towns, there must be a corresponding orientation in urban development strategy. Since most industrial and manufacturing towns thrive best with population 250,000 to 500,000, this category and those which are likely to enter this country by 1991 must receive top consideration. Or, if industrial location policy requires the development of many new growth centres, there must be a corresponding provision in the outlays for urban development.

6.33 The principal reform that is required at present is in the mechanism for determining the outlays for urban development and urban housing. At present these outlays are provided under certain broadly defined heads like "Development of Medium and Small Towns", "Development of Metropolitan Areas", "Social Housing Schemes", etc. There is no guarantee that these outlays will be distributed in a manner consistent with what is being done with regard to industrial location. Equally, there are certain outlays for urban development and housing in the industrial plan (as part of project costs) which are quite substantial. In fact, the central public enterprises spend Rs. 125 crores a year on township development. To this one has to add the housing investment of the railways (Rs. 10 crores p.a.), the general pool accommodation built by the Central Government (Rs. 30 crores p.a) and further amounts spent by the P&T, the Defence services, the P&T Department and the State Governments. It is clear that the total amounts spent directly by the Government and its agencies for employee housing and certain related urban services is probably nearly as large as the amounts provided for 'social housing' in urban areas (Rs. 150 crores p.a.) and for urban development (Rs. 170 crores p.a.). It is therefore as important to ensure that the Governments direct involvement in urban development is also consistent with its urban policy.

6.34 How is this consistency to be secured ? The previous section contained three specific suggestions which have a bearing on this :

- (i) Township developments in 'steel' towns to be undertaken by a newly constituted local authority with direct funding from the Central Government.
- (ii) A central Scheme to provide funds directly to local authorities who have been assigned new responsibilities for smaller central sector or private sector projects.
- (iii) State level schemes to provide local authorities who have to undertake urban investments to cope with the impact of new industrial areas/estates.
- (iv) As has been suggested in Chapter IV, large public sector projects which are likely to generate employment of over 1000 persons or whose investment costs are over Rs. 50 crores should be required to file "urban impact" statements so that their urban development implications can be worked out and the required investments planned.

The implementation of these schemes will compel Central and State planners to work out the linkages between industrial and urban development a little more closely.

6.35 The description of the linkages so far assigns a passive role to the urban planner who has to take industrial location as given and adjust his plans accordingly. All that has been suggested is a clear articulation of the linkages by specific funding for industry-related urban development schemes. However, the linkages need not be one way. In the process of drawing up an urban development plan, it may appear that the centre concerned is well placed for certain types of industries, is in need of new industries to replace some declining ones or is in a position to exploit some new opportunities. All of these possibilities may require modification or reorientation in industrial planning with regard to location of

public projects, licensing policy, subsidy policy, etc. At present, there is no arrangement for such interaction. The ideal modality for such interaction is a system of interactive multi-level planning. In the absence of this ideal, one approach would be to ensure adequate interaction between the urban development department and the other departments of State Governments in the formulation of industrial area /estate development plans, incentive schemes, location decisions on major projects, planning of the power distribution system, road development and in the development of major health and educational facilities. This interaction can be secured in the context of the formulation of the Five-Year-Plan for the State. A similar interaction between the State Government and the Central Government is also necessary with regard to the location of major industrial projects (and the policies which influence it), port facilities, airports, civil aviation route planning, etc.

6.36 The suggestions given here will not resolve fully the problem of interlinking urban and industrial planning. This will, however, improve matters by articulating the more obvious links a little more clearly. Further progress depends on the extent to which the basic ideas of multilevel and decentralised planning are implemented. This is a question which is not going to be resolved merely on the basis of the requirements for urban planning. However, any improvement in the economic content (particularly of investment and employment and their possible demographic and other economic activity, multiplier effects) of urban plans will make it easier to establish the credibility of a system of multi-level planning.

Table 6.1

Growth of Population in Selected Industrial Towns
(thousands nos.)

	51	61	71	81	Annual Growth rate 71-81%	Annual Growth rate 61-71%
1	2	3	4	5	6	7
<i>A Steel Towns</i>						
1. Bhilai/Durg UA	20	133	245	490	7.2	6.3
2. Durgapur	n.a.	42	207	312	4.2	17.3
3. Rourkela UA.	n.a.	90	173	323	6.4	6.8
4. Bokaro UA	6	n.a.	107	264	9.5	n.a.
5. Jamshedpur UA	218	328	456	670	3.9	3.3
<i>B Other Towns with Major Projects</i>						
1. Ranchi UA	107	140	256	503	7.0	6.2
2. Bhopal	102	223	385	671	5.7	5.6

1	2	3	4	5	6	7
3. Hardwar	57	60	79	146	6.3	2.8
4. Trichy UA	294	339	465	610	3.2	2.8
5. Neemuch	28	36	50	69	3.3	3.3
6. Nagda	n.a.	16	33	57	5.6	7.5
7. Begusarai UA	15	27	52	69	2.9	6.8
8. Kota	65	120	213	358	5.3	5.9
9. Bhatinda UA	35	52	65	127	6.9	2.3
10. Korba	n.a.	12	33	83	9.7	6.5
11. Dhanbad UA.	74	201	434	678	4.6	8.0
<i>C. Towns with Intensive Indl. area development for large & medium industries.</i>						
1. Nasik	157	216	272	429	4.7	2.3
2. Aurangabad	67	98	165	316	6.7	5.3
3. Pimpri-Chinchwad	10	28	84	221	10.2	11.6
<i>D. Indl. towns on the outskirts of metroplis</i>						
1. Faridabad Comp.	31	51	106	331	12.1	7.6
2. Ghazaibad UA	44	70	128	287	8.4	6.2
3. Ulhasnagar UA	109	247	396	649	5.1	4.8
4. Thane UA	68	109	207	390	6.5	6.6
<i>E. Centres of Small Scale Industry</i>						
1. Surat UA	237	318	493	914	6.4	4.5
2. Ludhiana	154	244	401	607	4.2	5.1
3. Batala	56	51	76	102	3.0	4.1
4. Sivakasi	23	31	61	83	3.1	7.0
5.	27	51	88	134	4.3	5.6
6. Malegaon	55	121	192	246	2.5	4.7
7. Bhivandi	26	48	80	115	3.7	5.2
8. Firozabad	65	99	134	202	4.2	3.1
9. Khurja	38	41	50	67	3.0	2.0
10. Cannanore	42	46	55	61	1.0	1.8
11. Bhandohi	16	20	23	32	3.4	1.4

VII.

THE URBANISATION OF NEW AREAS

Introduction

7.1 Chapter II gives a picture of the rather varied experience in urbanisation and economic development that exists in India. It embraces a range of conditions varying from the poorest and least developed to some of the middle income countries. Regions emerge as very important entities, each with its own hierarchy of different sized classes of towns and cities. This leads instance to one of the main recommendations in this report that the planning of urban development should be on a disaggregated regional basis and not in bunches of similar size classes of towns and cities across India. Within this general approach, the special needs of metropolitan cities and key industrialising cities as forming a national network of markets for goods and services have been recognised and suggestions made for the improved planning of these cities. This chapter decides on other areas which need special attention in terms of urban policy in the future. These areas are those that have shown a significantly accelerated rate of urbanisation during the last decade but lack adequate investments in their urban infrastructure. This brief analysis underlines the need for attention on more regional studies of urbanisation and economic development.

The Pattern of Urbanisation by Sub-Regions

7.2 The National Sample Survey has identified economic sub-regions within states. These have been used often for regional analysis.¹ There are other classifications of regions more appropriate for urban analysis but the N.S.S. regions are used here for convenience and to illustrate some of the problems that exist in particular sub-regions.

7.3 *Appendix Tables A 7.1 and A 7.2* give the urban and rural populations for the regions, the share of each region in the state and the levels of urbanisation in 1971 and 1981. *Table 7.1* uses these data to derive growth rates of total population, urban population, rural population and the URGD. These data are useful for better understanding of the high rates of urban growth that are observed in particular regions.

7.4 We first focus on the regions with the lowest levels of urbanisation. There are three regions with levels of urbanisation around or lower than 10 percent corresponding to the least developed countries in the world. These are Northern Bihar, Southern Orissa and Eastern Uttar Pradesh. In fact, Eastern U.P. and Northern Bihar constitute a contiguous belt with a total population of almost 70 million people. Other regions with extremely low levels of urbanisation of less than 15 percent are Coastal Orissa, Southern Rajasthan, Northern Orissa, Central Bihar and Eastern Madhya Pradesh. Except for Southern Rajasthan, all the others are in the eastern and Central Eastern belts of the country.

¹ They have been used, for example in Amitabh Kundu and Moonis Raza.

Indian Economy ; The Regional Dimension, New Delhi : Spectrum Publishers 1982,

Table 7.1

The Pattern of Urbanisation
Regionally Disaggregate in States
(1971-81)
Annual Rates of Growth (Percent)

State and Region	Urban	Rural	URGD	Total
1. Andhra Pradesh				
(i) Coastal	3.70	1.42	2.28	1.87
(ii) Inland Northern	4.33	1.91	2.42	2.49
(iii) Inland Southern	4.10	1.53	2.57	1.84
2. Bihar				
(i) Southern	4.61	1.60	3.01	2.13
(ii) Northern	4.54	2.01	2.53	2.15
(iii) Central	4.28	1.92	2.36	2.20
3. Gujarat				
(i) Plains	3.64	1.94	1.70	2.41
(ii) Saurashtra	3.08	2.21	.87	2.56
4. Haryana				
(i) Eastern	4.88	1.67	3.21	2.22
(ii) Western	4.52	2.44	2.08	2.73
5. Karnataka				
(i) Coastal Ghats	4.60	1.45	3.15	2.63
(ii) Inland Eastern	3.10	2.01	1.09	2.31
(iii) Inland Southern	4.64	1.79	2.85	2.63
(iv) Inland Northern	3.59	1.67	1.92	1.41
6. Kerala				
(i) Northern	3.03	2.14	.89	2.36
(ii) Southern	3.36	.99	2.37	1.41
7. Madhya Pradesh				
(i) Eastern	5.40	1.37	4.03	1.84
(ii) Inland Eastern	4.80	1.83	3.05	2.35

State and Region	Urban	Rural	URGD	Total
(iii) Inland Western	4.66	1.83	2.83	2.45
(iv) Western	3.64	2.19	1.45	2.53
(v) Northern.	4.82	1.92	2.90	2.45
8. Maharashtra				
(i) Coastal	3.55	1.45	2.10	2.83
(ii) Inland Western.	3.32	1.53	1.79	2.11
(iii) Inland Northern	3.07	1.92	1.15	2.19
(iv) Inland Central	4.15	1.46	2.69	1.81
(v) Inland	2.88	1.82	1.06	2.16
(vi) Eastern	3.74	1.64	2.10	1.68
9. Orissa				
(i) Coastal	5.14	1.55	3.59	1.91
(ii) Southern	5.01	1.38	3.63	1.65
(iii) Northern	5.76	1.29	4.47	1.77
10. Punjab				
(i) Northern	3.63	1.32	2.31	2.07
(ii) Southern	3.75	1.86	1.89	2.26
11. Rajasthan				
(i) Western	4.16	2.84	1.32	3.11
(ii) North Eastern	4.81	2.19	2.62	2.73
(iii) Southern	4.21	2.52	1.69	2.71
(iv) South Eastern	5.39	2.20	3.19	2.76
12. Tamil Nadu				
(i) Coastal Southern	2.17	1.05	1.12	1.27
(ii) Coastal Northern	2.88	1.37	1.51	1.95
(iii) Inland	2.25	1.19	1.06	1.58
13. Uttar Pradesh				
(i) Himalayan	4.68	1.88	2.80	2.34
(ii) Western	5.05	1.60	3.45	2.31

State and Region	Urban	Rural	URGD	Total
(iii) Central	4.41	1.77	2.64	2.27
(iv) Eastern	4.94	2.01	2.83	2.28
(v) Southern	5.57	1.89	3.68	2.40
14. <i>West Bengal</i>				
(i) Himalayan	4.83	2.01	2.82	2.52
(ii) Plain Eastern	3.95	2.22	1.73	2.41
(iii) Plain Central	2.54	1.57	.97	2.02
(vi) Plain Western	2.73	1.74	.99	1.82

Notes: 1. Calculated from appendix table A. 7.1

2. Details of regions in Appendix Table A. 7.3.

and form two contiguous geographical territories: Eastern U.P., Northern and Central Bihar on the one hand and Orissa and Eastern Madhya Pradesh on the other.

7.5 It is useful now to look at the rates of urbanisation in these regions. It is striking that the rate of urban population growth in all these regions is above the national average of 3.86 percent a year. Indeed, out of the eight regions identified, the growth of urban population in six is over 4.5 percent a year (55 percent over the decade). This rate is similar to that of the growth rate of Delhi, for example. Along with this pattern of high urban population growth, two patterns of rural growth are found. The Northern contiguous area of Bihar and Eastern U.P. have high rates of rural population growth of about 2 percent a year as compared with 1.75 percent for the country as a whole. In the other region, Orissa and Eastern M.P., the rural population growth rate is about 1.5 percent a year or less.

7.6 Consider the case of Bihar and Eastern U.P. first. A significant proportion of urban growth in this area is owing to re-classification of numerous villages as towns. In Eastern U.P., medium sized towns (all district headquarters) such as Ballia, Ghazipur, Azamgarh, Deoria, Basti and Sultanpur have all grown rapidly while the larger cities of Allahabad, Gorakhpur, Varanasi and Faizabad have all been relatively stagnant. In Bihar, there has been a largescale re-organisation of districts so that several towns have now become district headquarters. Much of the rapid rate of urban population growth in this area can therefore be attributed to administrative expansion which has made a significant difference to the extremely low base of urban population existing hitherto. Much of the urban population increase has therefore been growth by redefinition. As documented in Chapter II, agricultural productivity and hence economic growth in this area has been extremely low.

7.7 Now consider the case of Orissa and Eastern Madhya Pradesh. These regions have exhibited characteristics quite similar to some other regions with somewhat higher initial urban levels: Southern Bihar, South Eastern Rajasthan and Southern U.P. All these regions exhibit very high urban population growth along with low rural population growth resulting in URGDs higher than 3 percent. They are characterised by heavy industrial investments in large public sector enterprises : Ranchi, Dhanbad, Bokaro in Southern Bihar ; Durg-Bhilai and Raipur in Eastern Madhya Pradesh ; Orissa has Rourkela, Sambalpur and the new capital city of Bhubhaneshwar ; South East Rajasthan has Kotah and Southern U.P. has Jhansi. In common with Northern Bihar and Eastern U.P., these regions have also had low agricultural productivity growth, and consequently these large industrial investments have induced high rates of migration from rural areas as evidenced by the extremely low rates of rural population growth. It should also be noted that these areas have a high proportion of tribal population.

7.8 Other regions with high URGD (over 3 percent) that stand out are Western U.P. and Eastern Haryana, coastal Karnataka, and Inland Eastern Madhya Pradesh. Western U. P. and Haryana form a district region with Punjab. They have all had relatively low rural population growth of around 1.5 percent a year despite very high gains in agricultural productivity. Here urban growth is taking place because of gains in income leading to demands for agriculture related urban services. It is noticeable that apart from Haryana, these regions are well served by an existing network of small and medium towns which are growing quite rapidly in the wake of the green revolution. Haryana has had a shorter record of rural prosperity and also had a low initial level of urbanisation. Consequently, a large number of small towns have appeared in Haryana over the last decade.

7.9 Thus three distinct phenomena of high urban growth each with a different reason have been identified. Rapid urbanisation is taking place as a result of major public investments in industry in otherwise backward areas. At the same time, rapid urbanisation is also taking place as a result of rapid agricultural growth in other regions. It seems clear that, given demand for labour in urban areas, rural urban migration is likely to take place quite readily in both prosperous agricultural regions and agriculturally poor regions. In contrast, the third kind of rapid urban growth is observed in agriculturally stagnant regions where there is no readily identifiable demand in urban areas except by redefinition of settlements for administrative expansion.

7.10 It is now necessary to identify the regions with low urban growth. With the average urban population growth being 3.86 percent a year for the country, regions with less than 3.25 percent may be identified. These are Saurashtra, Inland Eastern Karnataka, Northern Kerala, parts of Maharashtra, and Tamilnadu. Further insight is gained by examining the record of growth of individual towns. It is found that out of about 125 towns in the country which had negligible population growth in the last decade (less than 1% a year), 90 were confined to (1) Tamilnadu (48), (2) Maharashtra (20), (3) Kerala (9), (4) Gujarat (7) and (5) Karnataka (6)—mainly in the sub-regions identified above as slow growing. Of these areas, it is notable that all of the regions in Tamilnadu had very low rural population growth (less than 1.5 percent a year) as well. The definitional problems

in Kerala have already been mentioned in Chapter II. For the rest, there appears to be little growth in a large part of the central Deccan plateau area which has low overall density of population and also has few towns. The towns that are there are not growing very much. Thus the dry central Deccan plateau area can be identified as an area lacking in towns as well as growth in existing towns.

7.11 Much has often been said about a disproportionate number of small and medium towns (less than 100,000 population) growing slowly. It is true that no town that was in the Class I category in 1971 grew at a rate of less than 1 per cent a year. Of the rest, it has been shown that they are concentrated in particular regions and hence yield regional explanations for their slow growth. Tamilnadu stands out as a state with a disproportionate number of slow growing towns, but it has had the lowest overall demographic growth in the country. It does, however, have a large number of towns of all sizes which are well distributed. The whole area of the state is well served by accessible urban centres. In fact, only 1 out of the 16 districts in the state is without a Class I city to serve the district.

7.12 One set of regions has been omitted in this analysis. These are all the hill regions in the country which include the states of Himachal Pradesh, Jammu & Kashmir, Meghalaya, Nagaland, Sikkim and Himalayan U. P. All of these regions lack urban centres. But the problems of hill areas being special, they have not been addressed here.

Regional Urban Growth:

An Identification of Key Problem Areas

7.13 In identifying the key problem areas it is useful to refer to the determinants of urbanisation, as detailed in Technical Appendix I. It is of great interest to see that agricultural employment essentially creates demand for services and some industry in small and medium towns. The population of large cities has little explicit relationship with agricultural activity except indirectly through general income growth which creates demand for urban goods. Hence in the situation of countryside agricultural stagnation as was the Indian experience in the 50—100 years before independence, the small amount of urbanisation that took place had to be “exogenous” based on mercantilist patterns. The growth of small and medium towns is more likely to be brought about by agricultural growth in the backward regions rather than industrial dispersal. The highly significant effects of factory employment on the growth of population in large cities would suggest a policy of industrial dispersal to cities already extant but industrially deficient. Alternatively, it suggests the creation of new centres which will be of substantial size.

7.14 The low level of urbanisation in the identified regions of Eastern U.P. and Northern and Central Bihar is then not surprising, along with Orissa and Eastern Madhya Pradesh. In these areas a large segment of the countryside is not properly integrated with the national economic system and the people in the rural areas do not have access to social and economic infrastructure. The crucial characteristic of settlements in these areas is an unstable economic base. The stagnation of agriculture in these areas over a long period of time has inhibited growing demand for a network of goods and services usually articulated through a network of

towns. The lack of existing nodes makes it difficult, on the other hand to provide the infrastructure—social as well as economic—which would help to stimulate the rate of agricultural productivity growth. The recent break-up of large districts into smaller ones in Bihar may mitigate the situation to some extent in that area. But given the geographical extent of these regions identified and the magnitude of population living there it is clear that special schemes must be designed for urban development in these areas that will trigger agricultural growth and *vice versa*. The prognosts for long term rural employment prospects made in Chapter III also points to the need for a more conscious policy towards creating urban employment in these backward areas. Infrastructure provision will have to be made in selected settlements which can be expected to lead to the growth of urban activities.

7.15 This chapter has roughly outlined a few pointers to the identification of problem regions but this has to be done much more systematically. It is, therefore, suggested that:

- (i) a special scheme be designed in the Seventh Plan to identify these regions and centres;
- (ii) funds be earmarked from the Central Sector which may be devoted to urban development in these regions over and above the investments emerging from the State and regional plans.

7.16 It has been pointed out that other areas have had a rapid pace of development of agricultural activities which has led to equally rapid urban growth. These areas also happen to be served by a well distributed network of towns and cities of different sizes which act as growth centres in these regions. The need in the towns and cities of these regions is for the provision of basic infrastructure like access roads, transport and communication, industrial and commercial energy, parcels of developed land for manufacturing and service activities, financial, administrative and other institutions, were housing and other wholesaling and retail facilities, all to assist secondary and tertiary growth and employment as well as a medium of urban amenities like sanitation, sewerage and water supply. Essentially, infrastructure has to assist the flourishing of growth activities in these regions. It is, however, necessary to identify some key growth centres in each State, within the context of the industrial dispersal and state and regional urban development plans suggested earlier, for development as lead centres for their regions. This should not present much of a challenge to comparatively simple diagnostic exercises.

Appendix Table A-7.1
Urban and Rural Population of Sub-Regions in States (1971-81)

(in millions)

State and Regions	Rural population		Urban population	
	1971	1981	1971	1981
1. Andhra Pradesh				
(i) Coastal	15.9	18.3	3.8	5.4
(ii) Inland Northern	12.5	15.1	3.3	5.1
(iii) Inland Southern	6.7	7.7	1.3	1.9
2. Bihar				
(i) Southern	12.0	14.0	2.28	3.56
(ii) Northern	20.7	25.3	1.10	1.71
(iii) Central	18.0	21.8	2.26	3.42
3. Gujarat				
(i) Plains	14.7	17.8	5.4	7.7
(ii) Saurashtra	4.5	5.6	2.1	2.9
4. Haryana				
(i) Eastern	4.9	5.7	1.2	1.9
(ii) Western	3.3	4.2	.54	.84
5. Karnataka				
(i) Coastal Ghats	2.2	2.6	.5	.9
(ii) Inland Eastern	2.9	3.5	.6	.9
(iii) Inland Southern	6.7	7.9	3.1	4.8
(iv) Inland Northern	10.4	12.2	2.9	4.2
6. Kerala				
(i) Northern	6.8	8.4	1.2	1.7
(ii) Southern	11.1	12.2	2.2	3.1

State and Regions	Rural population		Urban population	
	1971	1981	1971	1981
<i>7. Madhya Pradesh</i>				
(i) Eastern	11.3	13.0	1.28	2.16
(ii) Inland Eastern	6.3	7.5	1.10	1.77
(iii) Inland Western	5.6	6.7	1.39	2.19
(iv) Western	7.0	8.7	2.08	2.97
(v) Northern	4.7	5.7	.94	1.50
<i>8. Maharashtra</i>				
(i) Coastal	4.4	5.1	7.1	10.1
(ii) Inland Western	9.7	11.5	3.2	4.4
(iii) Inland Northern	4.7	5.7	1.5	1.9
(iv) Inland Central	6.9	7.9	1.2	1.8
(v) Inland	6.0	7.2	2.4	3.2
(vi) Eastern	2.9	3.4	.35	.5
<i>9. Orissa</i>				
(i) Coastal	9.4	11.0	.89	1.47
(ii) Southern	3.6	4.1	.24	.40
(iii) Northern	7.1	8.1	.71	1.23
<i>10. Punjab</i>				
(i) Northern	5.9	6.8	2.0	2.9
(ii) Southern	4.4	5.3	1.2	1.7
<i>11. Rajasthan</i>				
(i) Western	6.0	7.9	1.5	2.2
(ii) N. Eastern	9.5	11.8	2.2	3.6
(iii) Southern	2.7	3.3	.5	.8
(iv) S. Eastern	3.1	3.9	.4	.6
<i>12. Tamil Nadu</i>				
(i) Coastal Southern	9.3	10.3	2.6	3.2
(ii) Coastal Northern	7.9	9.1	4.8	6.3
(iii) Inland	11.4	12.9	5.1	6.4

State and Regions	Rural population		Urban population	
	1971	1981	1971	1981
13. Uttar Pradesh				
(i) Himalayan	3.3	3.9	.56	.89
(ii) Western	25.6	30.0	5.72	9.36
(iii) Central	13.0	15.5	2.74	4.21
(iv) Eastern	30.4	37.1	2.74	4.43
(v) Southern	3.7	4.4	.63	1.08
14. West Bengal				
(i) Himalayan	3.5	4.3	.44	.71
(ii) Plain Eastern	9.4	11.7	1.0	1.5
(iii) Plain Central	12.0	14.1	8.8	11.3
(iv) Plain Western	8.4	10.0	.7	.9

Appendix Table A.7.2.
Level of Urbanisation
Regionally Disaggregated in States

(1971-81
(Percent))

State and Region	Level of Urbanisation		Share of region in States Urban Population	
	1971	1981	1971	1981
1. <i>Andhra Pradesh</i>	19.3	23.2	100	100
(i) Coastal	19.3	22.8	45.2	43.5
(ii) Inland Northern	20.9	25.3	39.3	41.1
(iii) Inland Southern	16.3	19.8	15.5	15.4
2. <i>Bihar</i>	16.0	12.5	100	100
(i) Southern	16.0	20.3	41.0	22.9
(ii) Northern	5.0	6.3	19.7	41.4
(iii) Central	11.0	13.6	39.3	35.7
3. <i>Gujarat</i>	28.1	30.3	100	100
(i) Plains	26.9	29.1	72.0	72.6
(ii) Saurashtra	31.8	34.1	22.0	27.4
4. <i>Haryana</i>	17.1	22.0	100	100
(i) Eastern	19.7	25.0	70.6	67.9
(ii) Western	13.2	17.6	29.4	32.1
5. <i>Karnataka</i>	24.2	29.2	100	100
(i) Coastal	18.5	25.7	7.0	8.3
(ii) Inland Eastern	17.1	20.5	8.5	8.3
(iii) Inland Southern	31.6	37.8	43.7	44.4
(iv) Inland Northern	21.8	25.6	40.8	39.0
6. <i>Kerala</i>	15.9	18.9	100	100
(i) Northern	15.0	16.8	35.3	35.4
(ii) Southern	16.5	20.3	64.7	64.6
7. <i>Madhya Pradesh</i>	16.3	20.3	100	100
(i) Eastern	10.1	14.2	20.4	31.3
(ii) Inland Eastern	15.0	19.1	16.8	18.1
(iii) Inland Western	19.9	24.6	20.7	16.1
(iv) Western	23.0	25.5	28.0	20.9
(v) Northern	16.7	20.9	14.1	13.7

State and Region	Level of Urbanisation		Share of region in States Urban Population	
	1971	1981	1971	1981
8. <i>Maharashtra</i>	31.3	35.0	100	100
(i) Coastal	61.7	66.4	44.9	45.9
(ii) Inland Western	24.8	27.7	20.3	20.0
(iii) Inland Northern	24.2	25.0	9.5	9.1
(iv) Inland Central	14.8	18.6	7.6	8.2
(v) Inland	26.6	30.8	15.2	14.5
(vi) Eastern	12.1	12.8	2.5	2.3
9. <i>Orissa</i>	8.4	11.8	100	100
(i) Coastal	8.7	11.8	47.4	47.3
(ii) Southern	6.4	8.8	12.8	17.8
(iii) Northern	9.0	13.2	39.8	34.9
10. <i>Punjab</i>	23.7	27.5	100	100
(i) Northern	25.3	29.9	62.5	63.0
(ii) Southern	21.4	24.3	37.5	37.0
11. <i>Rajasthan</i>	17.6	20.9	100	100
(i) Western	19.7	21.8	30.9	29.3
(ii) N. Eastern	18.9	23.0	49.7	43.9
(iii) Southern	10.6	12.3	7.7	14.5
(iv) South Eastern	15.7	20.3	11.8	12.3
12. <i>Tamil Nadu</i>	30.4	32.3	100	100
(i) Coastal Southern	21.8	23.7	20.8	20.1
(ii) Coastal Northern	37.8	40.9	38.4	39.6
(iii) Inland	30.9	33.2	40.8	40.3
13. <i>Uttar Pradesh</i>	14.0	18.0	100	100
(i) Himalayan	14.7	18.4	4.4	4.3
(ii) Western	18.3	22.8	46.9	33.0
(iii) Central	17.4	21.4	21.1	17.0
(iv) Eastern	8.2	10.7	22.2	40.9
(v) Southern	14.7	19.9	5.4	4.8
14. <i>West Bengal</i>	24.7	26.4	100	100
(i) Himalayan	10.3	14.0	3.7	4.9
(ii) Plain Eastern	9.6	11.4	9.2	10.4
(iii) Plain Central	42.3	41.2	80.7	78.5
(iv) Plain Western	7.7	8.3	6.4	6.2

Notes: See appendix table A-7.3 for details regions.

Appendix Table A-7.3

Details of Regions in States (Districts)

1. Andhra Pradesh	
(i) Coastal	Srikakulam, (+ Vizianagaram) ¹ Vishakhapatnam, East Godavari, West Godavari ² , Krishna, Guntur, Prakasam ² and Nellore.
(ii) Inland Northern	Mahabubnagar, (Hyderabad, ¹ +Rangareddbad) Medak, Nizamabad Adilabad, Karimnagar, Warangal Khammam and Nalgonda.
(iii) Inland Southern	Kurnool, Anantpur, Cuddapah and Chittoor.
2. Bihar	
(i) Southern	Santhal Paranaj, Dhanbad, Hazaribagh (+ Giridih) ¹ , Palamau, Ranchi and Singhbhum.
(ii) Northern	Purnea (+ Kathihar), ¹ Darbanga (+ Samastipur+ Madhubani), ¹ Muzaffarpur (+Sitamarhi +Vaishali) ¹ , Champaran and Saran (+ Siwan +Gopalganj) ¹
(iii) Central	Bhagalpur, Monghyr (+Begusarai) ¹ , Siaharsa, Patna (-Nalanda) ¹ , Gaya (+ Nanda, +Aurangabad) ¹ and Shahabad (+Bhojpur +Rohtas)
3. Gujrat	
(i) Plains	Surendranagar, Kachch, Banaskantha, Sabar Kantha Mahesana, Gandhinagar, Ahmedabad, Kheda, Panch Mahals, Vadodara, Bharuch, Surat, Valsad and The Dangs.
(ii) Saurashtra	Bhavnagar, Amreli, Junagadh, Jamnagar and Rajkot.
4. Haryana	
(i) Eastern	Ambala, Karnal (+ Kurukshetra) ¹ Rohtak (+ Sonipat) and Gurgaon ² (+Faridabad) ¹
(ii) Western	Hissar (+ Sirsa+ Bhiwani, ¹ Jind, Mahendragarh.
5. Karnataka	
(i) Coastal Ghats	Dakshin Kannad ³ and Uttar Kannad ³ .
(ii) Inland Eastern	Shimoga, Chikmagalur, Hassan and Kodagu (Coorg).
(iii) Inland Southern	Kolar, Tumkur, Bangalore, Mandya and Mysore.
(iv) Inland Northern	Bidar, Gulbarga, Bijapur, Belgaum, Bellary, Dharwar, Raichur and Chitradurga.
6. Kerala	
(i) Northern	Cannanore, Kozhikode (+ Wynad) ¹ , Malappuram and Palghat.
(ii) Southern	Trichur, Ernakulam (+Idukki) ¹ , Kottayam, Alleppey, quilon and Trivandrum.

¹ Districts created after the 1971 Census and included in the 1981 Census have been indicated in the brackets against the districts from which they have been carved.

² Ongole is renamed as Prakasam² in 1981 Census.

³ One Tehsil from Mohendragarh has been added to Gurgaon district in 1981 Census.

⁴ South Kanara and North Kanara are renamed as Dakshin Kannad and Uttar Kannad in 1981 Census.

7. Madhya Pradesh
- (i) Eastern Surguja, Rajgarh, Bilaspur, Raipur, Durg (+Rajnandgaon)¹, Bulaghat and Bastar.
- (ii) Inland Eastern Sidhi, Rewa, Satna, Panna, Jabalpur, Shahdol, Mandla and Seoni.
- (iii) Inland Western Damoh, Sagar, Vidhisha, Sehore (+Bhopal)¹ Raisen Narsimhapur, Chindwara, Hosangahar and Benuat.
- (iv) Western Mandasaur, Rajgarh, Shajapur, Ujjain, Ratlam, Jhabua, Dhar Indore, Dewas, Khargone (West Nimar) and Khandwa (East Nimar)
- (v) Northern Chatarpur, Bind, Tikamgarh, Gwalior, Morena, Shivpuri and Guna.
8. Maharashtra
- (i) Coastal Thana, Greater Bombay, Kolaba and Ratnagiri.
- (ii) Inland Western Ahmednagar, Pune, Satar, Sangli, Solapur and Kolhapur.
- (iii) Inland Northern Nasik, Dhule and Jalgaon.
- (iv) Inland Central Aurangabad, Parbhani, Bir, Nanded and Osmanabad.
- (v) Inland Buldana, Akola, Amravati, Yavatmal, Wardha and Nagpur.
- (vi) Eastern Bhandara and Chandrapur.
9. Orissa
- (i) Coastal Balasore, Cuttack, Puri and Ganjam.
- (ii) Southern Bandh-Khondmal, Kalahandi and Koraput.
- (iii) Northern Mayurbhanj, Keonjhar, Sandargarh, Sambalpur, Dhenkanal and Bolangir.
10. Punjab
- (i) Northern Gurdaspur, Amritsar, Ludhiana, Jalandhar, Kapurthala, Hoshiarpur and Rupnagar.
- (ii) Southern Patiala, Sangrur, Ferozepur and Bhatinda (+Faridkot)¹
11. Rajasthan
- (i) Western Jhunjhunu, Sikar, Churu, Bikaner, Jalor, Jaisalmer, Jodhpur, Barmer and Nagaur.
- (ii) North Eastern Ganganagar, Alwar, Bharatpur, Sawai Modhopur, Jaipur, Tonk, Bhilwara, Ajmer and Pali.
- (iii) Southern Banswara, Durgapur, Udaipur and Sirohi.
- (iv) South Eastern Jhalawar, Kota, Bundi and Chitorgarh.

¹ District created after 1971 Census and included in the 1981 Census have been indicated in the brackets against the districts from which they have been carved.

12. Tamil Nadu
- (i) Coastal, Northern Madras, Chengalpatti, North Arcot and South Arcot.
 - (ii) Coastal, Southern Tiruchirappalli, Thanjavur (+ Pudukkottai)¹ Ramanathapuram and Kanyakumari.
 - (iii) Inland Dharmapuri, Salem (+ Periyar)¹, Coimbatore, Nilgiri, Madurai and Tirunelveli.
13. Uttar Pradesh
- (i) Himalayan Pithoragarh, Chamoli, Uttarkashi, Dehradun, Tehri Garhwal, Garhwal, Almora and Nainital.
 - (ii) Western Saharanpur, Muzaffarnagar, Bijnor, Meerut, Bulundshahar (+ Ghaziabad)², Moradabad, Rampur, Bareilly, Pilibhit, Sahajahanpur, Budaun, Aligarh, Mathura, Etah, Mainpuri, Farrukhabad, Etawah and Agra.
 - (iii) Central Kheri, Sitapur, Hardoi, Lucknow, Barabanki, Rae Bareilly, Unnao, Fatehpur and Kanpur.
 - (iv) Eastern Bahraich, Gonda, Basti, Gorakhpur, Deoria, Ballia, Azamgarh, Faizabad, Sultanpur, Jaunpur, Ghazipur, Varanasi, Mirzapur, Allahabad and Pratapgarh.
 - (v) Southern Banda, Hamirpur, Jalaun and Jhansi (..Lalitpur).
14. West Bengal
- (i) Himalayan Cooch Behar, Darjeeling and Jalpaiguri.
 - (ii) Plains Eastern West Dinajpur, Malda, Murshidabad, Nadia and Birbhum.
 - (iii) Plains Central 24 Parganas, Calcutta, Howrah, Hoogly and Burdwan.
 - (iv) Plains Western Bankura, Purulia and Midnapore.

¹ Districts created after the 1971 Census and included in the 1981 Census have been indicated in the brackets against the districts from which they have been carved.

² Ghaziabad district has been formed out of Meerut and Buland Shahar.

VIII Urban Land Policy in India : A Review and Critique

Background : Principles of Urban Land Policy

8.1 The transition of land use from agricultural to non-agricultural activities is centred on the urbanisation process along with the concentration of population. When the process of urbanisation was slow, the transition in land use was equally slow and public management of land was neither necessary nor desirable. With cities growing at 3-4 percent per annum on average and the faster growing cities such as Bangalore and Delhi at even higher rates, public participation in the land market becomes inevitable as well as desirable. The question then becomes what the objectives of urban land policy are and, consequently, which types of participation are useful and which are not.

8.2 The objectives outlined by the Urban Land Policy Committee appointed by the Government of India (Ministry of Health) in 1965 still broadly hold true :

- (i) To achieve an optimum social use of urban land.
- (ii) To make land available in adequate quantity at the right time and for reasonable prices to both public authorities and individuals.
- (iii) To encourage cooperative community effort and bonafide individual builders in the field of land development, housing and construction.
- (iv) To widen the base of land ownership specially to safeguard the interest of the poor and underprivileged sections of urban society.¹

8.3 Given the general population pressure on land and the expenses inherent in the conversion of land into urban uses, it is necessary to add additional fifth and sixth objectives (of urban land policy) which will assume greater and greater importance in the context of rapid urban growth in the years to come :

- (v) To encourage the socially and economically efficient allocation of urban land such that land development is done in a resource conserving manner and that the magnitude of land used is optimal.
- (vi) To promote flexibility in land use in response to changes resulting from a growing city.

8.4 The aim of this Task Force is to review existing urban land policy critically and to suggest measures in urban land policy which make it more likely that the foregoing six objectives are achieved in practice.

¹This is changed from the original which reads "To prevent concentration of land ownership in a few private hands and specially safeguard.....",

8.5 Analysis of the structure of cities shows that a tight relationship exists between the land market and the allocation of economic activities in a city. As a consequence, the formulation of urban land policy must be done on the basis of an understanding of urban processes and particularly how they are affected by growth. Because of the durability of urban structures, what is done now in land policy determines the physical structure of a city for a time considerable into the future. It is argued here that it is because of the uncertainties related to the future that land policy must be formulated with caution but yet should be flexible enough so that exigencies of the future can be coped with without major disruptions.

8.6 Certain regularities in the structure of cities that are observed around the world can be suggested as guidelines toward understanding the operation of the urban land market and how it is affected by and how it affects city growth. The idea is not that the regularities observed elsewhere must also be true for India. More correctly, the regularities should be regarded as a consequence of the reasons for the existence of cities and the functions that they perform, and ought therefore to apply to India as well. People essentially congregate in a city in order to take advantage of improved employment opportunities provided as a result of the concentration of a variety of activities which have their own multiplier effect. Concentration is therefore of the essence to the functioning of a city : it is the *raison de'tre* of a city's existence. Despite the very high concentration that is observed in our traditional cities, it has been a legacy of colonial rule that deconcentration, dispersal of activities, the planning of garden cities and suburbs, and particularly the concept that the rulers (white city or civil lines) must turn away from the ruled (black city or the bazar area) has received much greater attention in the formulation of urban land policy as well as in urban planning in general. It is easy to appreciate why our colonial rulers disliked concentration. First, they were not interested in, on the contrary, were opposed to the generation, of urban economic activity. Second, planning of cities, to the extent it was done, was mainly of civil lines and cantonments and the objective there was maximisation of standards and comfort and environment for themselves and the maximum of distance from the natives. Third, concentration helps organisation of political activity and this was not in their interest either. These notions, still persist in our concepts in profear forms, not always explicit. The ideal of a good city even today is one that is unproductive but yet one that provides a pleasing environment for the ruling class—and that includes us planners, academics, administrators and politicians.

8.7 Such concepts were quite rational from the point of view of colonial rulers, who were careful to shed such fancy notions. It is interesting that similar norms were not followed in their home country. Manchester, Birmingham, Glasgow and London were anything but garden cities. They were crowded and grimy but were incredible. We must understand that crowding, face to face transactions, even congestion, are essential to the process of income generation from commerce, services and industry. Urban land policy must be so framed that people are aided in augmenting the economic activities that make a city and in finding appropriate shelter in locations close to their place of livelihood.

8.8. The accent in urban land policy, to the extent it has been articulated, has been on objective (4) and to some extent spelt out in the second paragraph of this section. There has been continuing concern over "unwarranted",

“undesirable” and unprecedented increases in urban land values over almost the whole planning period. Each planning document regards the control of urban land values as a major objective in urban policy. There has been a percept in that urban land prices have been rising very rapidly and that this has somehow been the result of excessive concentration in the ownership of urban land. As a result the last quarter century has seen a series of attempts at achieving objectives 2 & 4 but which, in balance, have probably accentuated the problems that were sought to be solved. Despite the concern over urban land values and its pattern of ownership and concentration it is strange that no organised attempt has been made at data collection in order to find out what has actually happened to either urban land values or its pattern of ownership. Hence most pronouncements in the trend of land values are based on conjectures or casual observations.

In pre-colonial India, Delhi, Hyderabad, Lucknow, Lahore, etc. were growing too but active producers of wealth. We may blame the structure of parts of our cities to our colonial heritage but we are responsible for our continuance of these modes of thinking. It is in the new towns, new state capitals and the national capital where the strongest evidence of such urban land policy is most visible. To the extent that they reflect our aspirations, expanding old towns are also avidly copying them. Let us count how. First, the land policy has been such as to discourage high densities of residence as well as of employment. Second, employment has been sought to be dispersed. Third, except unavoidably in the steel cities, industry is discouraged except in designated industrial estates. Fourth, the allocation of land has assumed that the poor do not exist. This is particularly ironic since much of the rationale behind public acquisition of land at low prices from the original farmers has been to arrest the rise in land prices so that the poor are not deprived of access to land for shelter as they are in a speculative private market. Fifth, in many places, even commerce has been discouraged in the sense that land allocation for traditional type markets is looked down upon. In short, much of urban land policy where it has been formulated has been ‘anti-people and prorich’.

8.9 Most attention is naturally focussed on the newly developing areas where new land development and construction is typically going on. Rapid land value increases would be expected in such areas—and should take place—leading to massive windfall gains in certain geographical areas to the neglect of others. In an evolving land value pattern in which different degrees of land price appreciation take place it is quite reasonable to expect that an uninformed perception would be heavily biased towards areas of high appreciation. This problem is not peculiar to India alone. It is therefore necessary to understand the role of the price of land in the allocation and distribution of urban activities.

8.10 While it is commonplace to hear that the price of land has risen in an “unwarranted” manner in urban areas it is not always clear what such a statement means. The observed price of any commodity is essentially a distribution around some mean and it is usually not too difficult to find this mean. The variance in the observed prices of other commodities is small. The problem with urban land is that it possesses a value because of its particular location rather than its intrinsic characteristics. Wide fluctuations in prices within the

same area are unlikely but prices in different areas can vary widely. It is difficult to talk about the mean price of land since it has a very high variance within a town.

8.11 Conceptually, we can think of the price of land as being affected by three sets of characteristics :

- (i) site specific characteristics (intrinsic quality of land).
- (ii) neighbourhood qualities (amenities); and
- (iii) access characteristics.

8.12 The influence of (i) is relatively minor as compared with that of (ii) and (iii). The main determinant of urban land value is the attractiveness of location—or the intensity of its access characteristics. Thus, typically, land in the central city which has close access to centres of employment and commerce has very high value and that at the periphery, relatively low value. In a monocentric city, the distance from the city centre is the key determinant of land price; distance being a proxy for the access characteristics of a particular plot of land.

8.13 At the very edge of the city, land values approach the existing value of land in alternative uses. At the very edge of the city then, the value of undeveloped land would approach the value of agricultural land. As the city grows and the boundary shifts, the value of land increases at the old boundary so that there is a gradual decline toward the new boundary. If the profile of land value is an exponential decay from the city centre, as is generally found in cities and if land values increase everywhere, the *proportional* increase at the periphery is likely to be phenomenal as compared with the values nearer the city centre. *It is often these increases that are most perceived and regarded as unwarranted when it should be understood that such increases in value are intrinsic to the process of urban growth.*

8.14 Once a pattern of land price surface changes, how does one decide whether these changes are warranted or un-warranted? If land value measures some kind of accessibility value then the increase in the size of a city's population can be said to increase the accessibility (or opportunity set) for everyone in the city. The increase in value of land in that case really measures the increase in its "productivity" and is, in that sense, justified. But when does speculation or unwarranted rise exist?

Speculation

8.15 Speculation can exist both in a competitive market and in a monopoly situation. *Speculation can be defined as the buying and selling of land by an agent purchasing for purposes of capital gain and not for development. In even a competitive situation, expectations of price increases can feed on themselves and lead to an unwarranted price rise. In such a situation, eventually, the prices will have to come down but (a) 'eventually' might be a long time and (b) meanwhile there would be a mis-allocation of resources according to these erroneous price signals. Furthermore, there will be a transfer of income to speculators. Thus, we need to worry about speculation in even a competitive situation.*

8.16 In a *monopoly* situation, the owner of land can affect the price of land by holding it off the market in order to raise prices. His power to do this depends on (a) his concentration of ownership (what proportion of land is subject to concentration of ownership), (b) the elasticity of demand for land (c) the conditions in other cities. Even if there is a relatively low degree of concentration of ownership of land on a city-wide basis (the typical case), there can be extreme concentration of ownership in particular parts of the city. In situation of competitive ownerships and concentrations, a land-owner cannot hold the land off the market indefinitely because in order to realise his gain he has to sell it sometime. If he holds it off too long, competitive parcels of land could be developed by others and he might lose his accessibility value. In the monopoly case, the owner is essentially competing against himself and holding all others to ransom. Although the land may eventually come on the market, we need to be concerned because of the misallocation of resources in the meantime and a possible suboptimal configuration of the city resulting from arbitrary pricing by the monopoly owner. The durability of buildings and structures adds to this problem.

8.17 With the promulgation of the Urban Land Ceiling Act, the urban land market ironically enough is now the monopoly of the public authorities. The public authorities also hold the key to the release of those areas that have been frozen as being in excess of the ceilings into the market. In addition the advent of Housing Boards and Urban Development Authorities which hold large tracts of land and release them in dribbles has also probably led to an increase in speculative transactions : the speculators here, perhaps unwittingly, being these public authorities again. It is partly the inability—both financial and physical—of these public authorities to develop land rapidly enough commensurate with the rising demands of expanding population, that effectively restricts the supply of developed urban land and turn the public authorities into monopolist speculators. In this new situation, it is important that methods should be found to accelerate the supply of developed land.

8.18 The thrust of land policy has generally ignored some of these objectives of efficiency in allocation but has concentrated instead exclusively on land price control through different degrees of socialisation of land. This has usually been justified ostensibly in the interests of the poor to facilitate their access to land. In practice things have largely worked out contrary to expressed intentions.

Existing Approaches to Land Policy

Large-scale Acquisition of Land :

8.19 Delhi is the best example of this policy and, being the capital, is being increasingly used as a model for urban development measures in other growing cities. The principle has been that all the land on the yet undeveloped periphery of a growing city should be notified at an early stage and acquired by a public authority, at the prevailing agricultural prices. This would then prevent the undesirable speculation that would otherwise occur in the event of lands changing from agricultural to non-agricultural uses. The corollary that follows is that all increases in land values would accrue to the public benefit. A second corollary is that such a procedure is also necessary for the orderly planning and

development of the city since the public authority has control over all the peripheral lands and can prevent haphazard growth, urban sprawl, etc. A third corollary is that the poor will not be left to the "mercies" of the private market where they would stand no chance. Appropriate controls can be exercised in the land distribution policy so that the aims for equitable income and wealth distribution can be achieved. A fourth corollary is that the development of land is largely left to the public sector.

8.20 In the case of Delhi, the "Scheme for Large Scale Acquisition, Development and Disposal of Land" was initiated in 1961, according to which the Delhi Development Authority was to be the major developer, along with other agencies like the Municipal Corporation of Delhi, the Central Public Works Department and Cooperative House Building Societies which also had to carry out development of land, in accordance with the Master Plan and its zoning regulations. The main object of this scheme was "to lay down a clear and rational land policy consistent with the socio-economic and physical needs of the city and to prevent speculation and other unhealthy transactions in land, to provide developed and undeveloped land for bonafide residential, industrial, commercial and institutional use and to ensure a systematic distribution of land through the prescribed land use pattern". For this purpose land was to be acquired by the Delhi Administration under the Land Acquisition Act, 1894 and then transferred to the Delhi Development Authority under Section 22 (1) of the Delhi Development Act, 1957. The cost of acquisition was to be met out of the revolving fund created by the Government for this purpose and expenditure incurred by the Authority was to be met out of the sale proceeds of industrial, commercial and residential plots, with the surplus sale proceeds credited to the revolving fund.

8.21 The Scheme laid down that as a general policy, disposal of serviced land should be by auction to the highest bid except in the following cases where land could be allotted at pre-determined rates :

- (i) to individuals whose lands have been acquired,
- (ii) to industrial units functioning in non-conforming areas which have to be shifted,
- (iii) to individuals in the low and middle income groups,
- (iv) to cooperative house building societies and cooperatives societies of industrialists.

Land was to be held on 99 year lease—this being the nearest to freehold and an adequate incentive for the lessee to invest in housing.

8.22 This was the first effort for the socialisation of urban land through a comprehensive package of planned land use measures and public intervention aimed at creating a land bank and for holding land on lease. It envisaged coordinated growth through an apex planning, land development and controlling authority and the revolving fund implied the use of land as a resource for the common good. The ingredients for planned growth through legislation and public interventions were thereby established in a process which had little or no

role for the private land developer. It called for action to achieve the stipulated goals and objectives through a vigorous implementation programme through official agencies and housing cooperatives.

It is necessary to ponder over the implications of the scheme as was envisaged and carried into practice in Delhi, because it has been copied as a model for many subsequent schemes in other cities in the country.

Disposal of Land on Leasehold

8.23 Associated with the policy of land acquisition have also been the policies of disposal of land so acquired. For residential uses the general policy has been to provide the land on leasehold rather than freehold. The justification for this is partly to exercise a greater degree of control over its use, partly to collect ground rent on a continuing basis and partly to be able to collect major portions of land value increments to public account at the time of transfer. Leases, even if they are of long duration, are in practice quite restrictive (though they do not need to be so). The transfer of land is regulated : no transfer is lawfully allowed for an initial period of 10 years.

The leases can also restrict the uses to which land can be put to. It may be noted that most of these restrictions are again ostensibly to achieve the objectives of control of land values and the equitable distribution of income and wealth.

Restrictions on Land Use

8.24 Even in unplanned cities the standard instruments of land use regulation are zoning and building byelaws. Different areas of the city are zoned for different purposes : residential, commercial or industrial. Density norms are also often used. Associated with these are building bye-laws which regulate the land use in terms of minimum and maximum utilisation of the land. Such building bye-laws usually prescribe floor area ratios (FAR OR FSI), permissible heights of buildings, permissible qualities of buildings, etc. The objectives of zoning regulations and building bye-laws are ostensibly those of safety, building a proper urban environment, etc. The effects on the efficient allocation of land are usually quite severe in that they act as impediments against changes in the intensity of land use that might be expected in a growing city. For instance, in the context of land value increases, building bye-laws which restrict the height of buildings to 2 to 3 storeys result in the proportion of structure declining in relation to land value. Substitution of capital for land being restricted in such a situation, the supply of housing gets effectively restricted. The return on speculation in land grows much higher than the return on construction. In a poor country another effect of minimum building standards as enshrined in building bye-laws is equally damaging. With legal construction limited to relatively high quality and expensive housing, the poor are driven to unauthorised and illegal structures by definition. The poor dare not have recourse to extra-legal options consequent penalisation as a result.

Urban Land Ceiling

8.25 The fourth main instrument that has been used in recent times is the imposition of the urban land ceiling. Conceptually, this is essentially an

extension of the large scale public acquisition of land from the periphery to the rest of the city. Once again, the idea is ostensible redistribution of wealth and improvement for the access of the poor to the land for shelter purposes. The *raison d'être* is that there is an undesirable concentration in land ownerships, which encourages speculation, shooting up of prices and decrease in the supply of land. The owners of vacant land beyond the ceilings will be compensated in nominal terms and the public authority can use the land so gained for public purposes and for housing of the poor.

8.26 The Urban Land (Ceiling and Regulations) Act was enacted in 1976. Initially, this Act was envisaged for a ceiling on both land and buildings, but was transacted to consider urban land alone. The Act has been made applicable to all cities with a population of 0.3 million and above and in a few other smaller cities which have had high growth rates. The ceiling on vacant land as prescribed is 500 M² in Delhi, Bombay, Calcutta, and Madras; 1000 M² in Bangalore, Hyderabad, Ahmedabad, Kanpur and Pune, 1500 M² for eight other cities with a population between 0.5 to 1.0 million and 2000 M² for 35 smaller cities. The number of cities can be increased and added to the schedule of the Act. Significantly, the Act applied not just to the city but the city agglomeration, generally identified by a 5 k.m. belt around the city and within which the conflict between prime agricultural land and future urbanisation is most prominent.

What has gone wrong ?

8.27 It should be clear from this description of existing approaches to urban land policy that any thoughtful observer with socially progressive ideas can scarcely question these approaches. What may have gone wrong then ?

The Case of Delhi

8.28 In order to gauge what may have gone wrong, it will be useful to give some details on the operation of the "Scheme for Large Scale Acquisition, Development and Disposal of Land" as it has operated in Delhi. By December, 1961, about 74,000 acres of land were notified under Section 4 of the Land Acquisition Act, 1894 upto January 1982 of which, about 49,000 acres were acquired land out of which again the Delhi Administration transferred about 45,000 acres to the Delhi Development Authority (D.D.A.). About 4,000 acres of acquired land have yet to be taken possession of on account of unauthorised structures on the land or litigation. About 21,500 acres are still under Section 6 Notification of the Land Acquisition Act, 1894. The process from notification and freezing of land to actual possession for planned growth has not been as rapid as desired and this has resulted in a demand for streamlining procedures of the Land Acquisition Act, 1894, to reduce delays and also to ensure adequate compensation and other incentives for compulsory acquisition. A major offshoot of these delays is unauthorised use of land, which in Delhi today is to the extent of 1.92 lakh households (i.e. about a million people or 15 percent of the population of the city). This is proof that the major aim of providing serviced land in adequate quantity, at the right locations, at the right time and at the right price has not been quite achieved as a pre-requisite of coordinated growth. It may

1. The large majority of this resettlement was done during 1975 to 1977.

also be noted that the compensation to which the original owner is entitled under the Land Acquisition Act, 1894, is the market value of the land on the date of notification of Section 4, along with 15 percent atium. In the case of Delhi, approximately one third of the land notified in 1961 is still under Section 6. Farmers are, therefore, receiving 1961 compensation levels twenty years hence. About 6000 acres are still under Section 4. The gain has been, among others, of the approximately 2 lakh urban households occupying land unauthorisedly.

8.29. Of the approximately 45,000 acres given to DDA for development, only about 14,000 acres have been devoted to residential development. Of this (in 20 years about a third went for about 30,000 plots in cooperative housing societies, another third for auctioned (about 9500 plots) and L.I.G. and M.I.G. plots (about 21,000 plots at pre-determined prices), and the remaining third for about 2 lakh plots for the poor dislocated from central city slums and resettled in 44 resettlement colonies.¹ The way slums are demolished without any warning whatever and the dwellers are harassed and chased from one area to another is much worse than meted out to unwanted animals. This is what land to the poor has meant in practice. And yet the latter provide the vital public and private goods and services so essential for any city. The target according to the Master Plan was development of about 30,000 acres for residential development during these 20 years. In addition to this, D.D.A. has, in the past 5 years or so, constructed about 65,000 housing units for different category of people. The net result of all this is that of about 11.5 lakh dwelling units at present in Delhi, 2 lakhs are in resettlement colonies, 2 lakhs in unauthorised colonies (which are being regularised slowly), about 3.7 lakhs in traditional areas, about 1 lakh in squatter settlements, about 1.5 lakhs in regular plotted areas and about 1.5 lakhs in flats.

8.30 In summary then, apart from the 2 lakh resettlement plots the majority of which were developed between 1975 and 1977, the D.D.A. has developed only about 60,000 plots and about 60,000 flats in 20 years while it has had a monopoly on land development during that time and the population of Delhi has grown from about 2.3 million in 1961 to about 5.7 million in 1971. There has been a learning process so that, while it started from ideals that implied 'petty' peripheral neighbourhoods, large scale core area decongestion and renewal and well defined segregated activity. With land becoming increasingly scarce a more compact policy is now being pursued. The policy of auctioning residential (only 95000 in 20 years) commercial as well as industrial plots in irregular dribbles has led to very high rises in land prices. With all land under the control of the D.D.A., the bids for the small amounts that are auctioned have been astronomical, since there is no alternative (apart from unauthorised occupation). Moreover, the D.D.A. has regarded these scarcity auction prices as market signals and increased its predetermined prices by similar proportions. The result is that even predetermined land prices are now well over Rs. 400 per square metre—which is higher than the average land prices of developed areas in cities such as Boston and Washington DC in the United States.

Effects of Large Scale Public Acquisition of Land

8.31 The effect of public acquisition of land has been that the public authority is able to offer the land at very low, essentially agricultural prices pre-

1. The Large majority of this resettlement was done during 1975 to 1977.

vailing many years earlier. *The resulting intensity of land use, born of the fact that land has been bought cheap, is highly wasteful, uneconomic and inefficient.*

8.32 As argued earlier despite very common and general pattern that are observed internationally, deficiencies in knowledge and appreciation about the specifics of city growth, its appropriate and legitimate functions, and uncertainty about the future render planning exercises nearly futile. The first impediment to appropriate utilisation of publicly acquired land is therefore lack of knowledge and appreciation of what a city should look like, how it should grow, who shall inhabit it and the requirements of the future. Added to the problem is the attitude of omniscience of the planning authority and disregard of consultation with legitimate interests. "Papa knows best", becomes the *mantra*.

8.33 The second problem in the inefficient allocation of publicly acquired cheap land relates to the operation of the politico-economic-administrative structure as it operates in the country today. This, incidentally, is not very different from the operation of most bureaucracies. The perception of what is regarded as a public purpose is heavily dominated by the preferences and even private interests and perceptions of the few planners and decision makers in the public authorities. Then there are also the temptations for self-aggrandisement as reflected in gigantism in public projects. The preferences of upper and middle class planners and administrators are heavily biased toward order, cleanliness, deconcentration, the flowering front garden and the useful backgarden, both serving to help the "undesirable" populace at arms length and away from sight. Then again, land for public institutions like universities, government undertakings, government offices, etc., is allocated in usually highly wasteful quantities. If land were acquired by these institutions at prices which reflected its true opportunity cost, it would be difficult budgetarily for them to be so spendthrift.

8.34 The density and development norms typically promulgated by a public authority as has already been noted are unconsciously lavish. The result is that the city gets landed with unmanageable areas, higher service and transport costs. Lastly, the public authority can soon run out of the land in the first place. All this follows logically from the acquisition of cheap land.

8.35 The third problem in the inefficient allocation of publicly acquired lands is linked with the determination of their prices. The usual policy is to provide the land at cost plus rates to the users who are regarded as deserving in some sense—whether they are public institutions, housing cooperatives or the poor—and to auction the rest for the remaining users. Once again the problem arises partly from inadequacy of knowledge and partly from the operation of normal administrative procedures. Once very large tracts of land are acquired there is no rational way of determining prices at different locations. The usual governmental response to this is to decide prices on a no-profit no-loss basis. Differentiation between locations is administratively difficult—specially in the case where the allottee has little choice in the location he is allocated. For the rest of the plots, it is difficult for the public authority to decide the correct volume of land that should be auctioned at any given time. The public authority predictably can act as a classical monopolist: supply is restricted in the interest of raising current prices for budgetary reasons that most public authorities are subject to. Note that none of these arguments has focussed

on the effects of corruption that can reasonably be expected to exist in such authorities. The focus here is on intrinsic problems even if we assume that the public authorities are composed of intelligent, well motivated and honest people.

8.36 How does a public authority define who the deserving users are who should get land at pre-determined and essentially low prices? Here, once again, it is important to understand the politico-economic-administrative framework we operate in. The existence of competing elements of bureaucratic political and other public groups who all regard themselves as deserving is large in a society in which everyone regards himself as poor except, perhaps, the hypothetical top one percent of the population who these are is difficult to see. The allocation of land from a public authority can then be expected to reflect the differing degrees of access that each group enjoys. In a free market, the distribution of land can be expected to reflect the distribution of income and wealth. In an allocated "market", the distribution of land can be expected to reflect the distribution of access to the allocating authorities. *The key insight here is that the distribution of access to a public authority is likely to be even more skewed than the distribution of income and wealth.* There might well be redistribution within the top decile of the income distribution as various organised groups of white collar and other bureaucratic groups are quite likely to corner a disproportionate share of the land. To give an example: cooperatives are usually defined as deserving groups in our socialist culture. But who are likely to form housing cooperatives? The more educated, better off members of the bureaucratic and professional elite—not the poor who have difficulty organizing themselves. The first cooperative societies in Delhi which were able to get vast tracts of land at cost plus prices were composed of elite groups such as I.A.S. administrators, lawyers, judges, engineers, journalists, etc. Opposition to or discussion of such allocative practices is also difficult to mount because most members of the articulate public get bought out in this way. Such processes, first observed in Delhi, are now seen in one city after another where urban development authorities have gone into operation and modelled themselves on Delhi. Once again, the corruption aspects of these allocations are not being here discussed. It is the distribution of power, of access to power and of self perception that determines this lopsided land allocation even if the allocators are a band of incorruptible dedicated planners and administrators. The poor, with little means to organise themselves, then get left in the cold of the unauthorised illegal sector of the market and might even be worse off than in a free market situation.

8.37 The key spatial problem that arises from public land acquisition and disposal is that it is difficult to devise allocation procedures within which people can also exercise locational choices. The usual procedure is for allocation by priority or by lottery: the consumer is then happy to receive the plot wherever it may be located. Again, because of the organised pressure from various elite groups there is a continuing demand upon the local authority to do slum and squatter clearance from the centre of cities so that more well located land is made available for the better off. The typical response of public authorities is then to relocate the poor, if that is done at all, to the periphery of the city and often outside the urbanisable limits since that is seen as the most expendable and cheapest land. As the city expands and the Periphery shifts further out this merry go round is repeated at the expense again of the poor.

8.38 Another important inequitable effect of public acquisition of land is that it is often poor farmers who happen to be at the edge of the city who lose their land to the public authority. They not only lose their land at a price lower than they otherwise would have but also lose their livelihood at an earlier stage as well. The loser is then the poor farmer and the beneficiary the usually better off urban dweller.

Effects of Restrictive Leases

8.39 The restrictive practices in leases are designed with the noble intention of preventing allotment from being subverted with immediate sales. Here again the problem really arises from the fact that land is given at concessional prices and there are high incentives for making capital gains. This restricts spatial mobility of people who are tempted to indulge in illegal or extra-legal practices. The restriction on mobility has serious effects on efficiency in residential location as well as efficiency in the labour market.

8.40 The restrictions in leases, which are usually for 99 years, relate mainly to the transfer of the property. They usually prohibit the transfer of the property in the first 10 years except with special permission. Further, even after the 10 years, the public authority claims a significant share of the unearned increase in value in Delhi. This is pegged at 50 percent. The result is that most transactions are effected illegally or extra-legally and are not registered at all. The public exchequer therefore loses revenue which it would otherwise have gained through capital gains tax, stamps duty, etc. The local public authority does not get the 50 percent of the increment in value either. As a result of the decrease in open transactions, the plots that are so transacted gain a scarcity value and land prices are bid up unnaturally high.

In practice there is little difference between a long term lease and freehold. Even freehold properties are subject to all zoning and building regulations. They can also be subject to a transfer tax which recoups some of the unearned benefit. Since the restrictions on leases have to be administered, they lead to more avoidable corruption as well as inordinate delays than freehold lands.

Effects of Urban Land Ceiling

8.41 The inefficiencies resulting from the operation of the urban land ceilings are quite similar to those described above. It was envisaged that through the Act large portions of vacant urban land would vest with the public authority at non-market value prices. In reality, exemption clauses in the Act do not have the required clarity and their interpretation by local competent authorities vary considerably to the extent that exemptions in many agglomerations have been freely given to industries, education, health and other public facilities—often in conflict with development plan provisions. Accordingly, the Act in operation has not made a dent in achieving its prime objective.

8.42 Here again the assumption is that the public authority knows best. The aim of equity is not served well by such an assumption. Unlike rural land where it is relatively easy to designate "standard acres" i.e., the imposition of land ceilings in relation with the productivity of land, it is difficult to do the same in respect of urban land. In the case of rural land the land ceiling imposed on fertile and irrigated areas is less than that on dry and barren areas. This is

feasible administratively since these qualities are well known and do not change very quickly. The difference in value between the best and worst agricultural land is in the range of 1 to 5 or 1 to 10. In the case of urban land, however, the difference in value between the edge of the city and the centre is typically 1 to 100 or more. Furthermore, in the context of rapid urban growth these ratios keep changing. Hence the imposition of a physical urban land ceiling means that different individuals are subject to ceilings which are quite different in value. As was documented in the last section, different ceilings have been imposed in cities according to their size. A logical question that arises is will these ceilings be altered as cities grow? The ceiling in Bangalore is currently 1000 M². As Bangalore's population increases to 5 million (from about 3 million) will it be brought into line with the 4 largest cities and the urban land ceiling reduced to 500 M²? If so, how will the surpluses be squeezed out?

8.43 In terms of the efficient allocation of land, the imposition of urban land ceilings is essentially a short sighted measure. If implemented efficiently what it means is that all excess vacant land would come to the government at one point in time. *Nothing will be left for the future.* The government itself then has to decide when to release which parcels of land. As outlined earlier, the pressures on the government for allotment of the more desirable locations will be such that short term objectives will dominate those of longer term urban land husbandry. In addition, since the land is acquired at low prices once again, all the preferences are for inefficient uses as suggested before. The objective of providing shelter for the poor gets relegated to a very low priority in the way that such a regulation actually gets implemented. Land use for government purposes like the location of government offices and other public sector uses usually receives the top priority. Shelter for the poor is often comes as the fifth or sixth priority in these guidelines.

8.44 Apart from some cities where extremely large holdings were held by the erstwhile princes, the amount of land even potentially available from the operation of the urban land ceiling acts is small in comparison with the needs of cities and with the amount of land which can be acquired publicly through normal measures. In Madras¹, for example, only 1700 hectares are potentially available, of which only 700 hectares are with individuals while about 1000 hectares are with industry. This points to yet another problem that has emerged as a result of the urban land ceiling act. Projects—whether for industry or for residential development—which need temporary or permanent land ownerships in excess of the ceiling need to get exemptions in each case. This has had the effect of slowing down development as cases are stuck interminally with the competent authorities. This becomes the happy hunting ground of corruption.

8.45 These are problems inherent in large scale real estate management vested in public authorities. When land is acquired and given in different kinds of leases with differing conditions, the administrative problem of management gets quite immense. Inevitably, transfers of land, changes in land use, etc. have all to be dealt with administratively. This obviously leads to a whole host of avenues of corruption. Even in the absence of corruption, delays in changes in land use are built into the system and the "flexibility in urban structure essential for a

1 It should be noted, however, that in Madras the imposition of the ceiling has been much more liberal allowing 500M² per head in a family subject to a maximum of 2000 M².

growing city gets retarded. To the extent that decisions are subject to discretion and there is uncertainty in rules, procedures and regulations, overall procedures in the land market is increased and this impedes the flexibility that is necessary in a growing city.

The Need for a New Approach

8.46 We need an urban land policy to promote efficiency in the allocation of land, to help the poor in their access to land for shelter; to aid in the process of adjustment that cities have to go through in the process of rapid urban growth. The issues are now too complex to be merely seen in the context of public vs. private participation in the land market. The accumulated experience, as analysed above, in India as well as other parts of the world is now extensive enough to question the way things have worked out in practice. Yet, it is also clear, that an unregulated private land market would be as bad or worse for orderly and equitable urban growth. In a situation where incomes are likely to lag behind, land price growth as seems to be the case the public authorities must intervene in order to protect the interests of the poor and to promote orderly growth. This must be done in the interest of social welfare but also because the city belongs to the poor as much as to the rich. It is still the poor who physically produce the goods and services for economic growth and wellbeing. They are as integral a part of the city as any other groups. But the tendency is to regard them as marginal groups and hence to put them in marginal locations. Further, under conditions of rapid urban growth the provision of roads, of open spaces, of urban transport, of water, sewerage and sanitation, all have to be planned for; long term investments have to be coordinated. The market does not do these things well enough. We, therefore, need a dynamic symbiotic relationship between urban planning and the urban land and housing market. Public planning and policy enunciation should also use private energies and not usurp their functions. Moreover, these private energies must be directed in a desirable manner.

8.47 The problem is further complicated as the market responds to an enunciated plan. Services like roads, drainage, sewerage, water supply, and electricity are supplied by a public authority. Their planned provision has a crucial effect on the expected values of land. Speculators, developers, and others quickly alter their activities in response to a declared plan, sometimes constructively and sometimes perversely. These decisions cannot be predicted with any precision. So an exercise in urban planning can easily have unintended results inimical to its objectives.

8.48 We need land policy to establish conditions conducive to land-use cooperation and controlled competition. Unless the whole economy is planned and prices, in general, are not seen as important information signals about relative scarcity, urban planning must take into account the land market and people's preferences. Planning must, of necessity, be done by a small group of individuals, whose attempts to predict the future contain a large element of their own sets of preferences which are not shared by everyone else. New political systems are unable to transmit the wants of people very successfully to planners. Planning methods themselves are not adequate for the needs of cities. We should distinguish those measures which are specifically aimed at curbing undesirable speculation, since this is an issue that receives prominence in land policy. In

addition to efficient allocation of land we can regard the objective of land policy as the curbing of price rise because of the concerns outlined in the earlier section. Mere control of price is really a control of productivity if we assume that price reflects productivity.

8.49 The basic problem of urban land policy is the supply of serviced land:

- (i) in adequate quantity
- (ii) at the right locations
- (iii) at the right time
- (iv) at the right place.

These four considerations are obviously interrelated. It is difficult to predict where new developments will take place and when and the price of land is highly determined by its location. The price is very important for it determines the intensity of housing development that then takes place. Much concern is expressed to restrain the price rise of urban land in order to make it accessible for lower income groups. If, however, the price of land is pegged too low, extensive rather than intensive development is likely to take place and hence demand for land gets intensified. If by public participation these prices are kept low and not allowed to rise in response to higher demand, the only logical consequence is that the public authority is forced to provide larger and larger quantities of land with all the attendant costs. Urban land policy should therefore be aimed at inducing the right prices to prevail in the market so that they can act as appropriate signals in the development of the land. Public authorities need to use both indirect as well as direct methods of intervening in the market. Indirect methods should essentially aim at curbing speculation as well as encouraging the private supply of developed land while direct methods should be mainly concerned with making available increased volumes of developed land for the poor. This calls for the building up of a new information system which is not there at all.

IX. *Urban Land Policy: Some New Directions*

Introduction

9.1 Urban land assembly, development and distribution, of necessity, constitute the foundations on which urban planning is based. The roots of rural urban problems can be traced to the management of urban land. Yet, given the complexities of the urban land market and the dual use of land for its "use value" and "exchange value", it is difficult to work out a faultless system of urban land management so that the problems of equity, growth as well as changing urban structure are taken care of simultaneously. Moreover, as has been noted urban land is not a homogeneous mass but a heterogeneous structure comprising lands of various descriptions. A proper classification of urban land is necessary, as the nature of problems and their solutions in each distinct category of urban land are bound to be different. We endorse the classification of urban land into the following five broad categories as was recommended by the Committee on Urban Land Policy in 1965 :—

- (a) Developed Urban Land i.e., land within the city limits which is developed and largely built upon. There may be some vacant plots within it which would also fall in this category.
- (b) Undeveloped Urban Land i.e., land within the city limits at any point of time which is not yet developed and built upon.
- (c) Land within the Urbanisable Limits i.e., land presently agricultural or un-urbanised but likely to get urbanised within the next 10 or 15 years.
- (d) Land beyond the Urbanised Limits. This would naturally be purely rural land and the greater its distance from the city limits the lesser would it be subject to the forces of rural-urban interaction.
- (e) Land the use of which is frozen as green belt or for agricultural purposes and also land which is reserved for community use.

9.2 This Task Force has concentrated its attention on (a), (b) and (c) in terms of urban land policy specifically. (d) and (e) are essentially covered by its recommendations on urban planning in general. The problems of urban land assembly and development are relevant mainly for (b) and (c) while policies on redevelopment are relevant for (a).

A Review of Legislation Affecting Urban Land

9.3 A major difficulty in the articulation of urban land policy is the plethora of existing legislation and regulation which govern the land market. These include laws governing land tenure, land use regulations, land taxation laws

and laws enabling direct public intervention in the land market for the purpose of social control of land. Specific pieces of legislation like the urban land ceiling and the working of the land acquisition act have already been discussed. The other relevant pieces of legislation are briefly described here.

9.4 The main constitutional provisions concerning land are listed in Appendix 9.1. The key provision is, of course, Article 19 (1) (f) which confers on individuals the right to property. This is, however, qualified by Article 19 (5) which allows the State to restrict the operation of article 19 (1) (f) by allowing reasonable restrictions on property rights in the public interests. All the other local and state laws and regulations become valid and operational on account of this provision. These may be classified as follows :—

- (i) Land Acquisition Act for the purpose of acquiring lands for a public purpose.
- (ii) The Town Planning and Improvement Trust Acts to control the use of land to regulate its development with a view to promote organised urban growth. These include Master Plan and Town Planning Schemes, Urban Development Authority Acts, etc.
- (iii) Municipal enactments for controlling the development of land and building activity. These include Building Bye-laws, Zoning Rules and Sub-Divisional Rules, Fire Safety Regulations, Periphery Control Acts, Restriction of Ribbon Development Act, Housing Code etc.
- (iv) The Slum Areas (Improvement and Clearance) Act. (This is being dealt with in some detail by the Task Force on "Shelter for the Urban Poor and Slum Improvement".)
- (v) The Urban Land Ceiling Act.
- (vi) The Urban Art Commission Act.
- (vii) Other Acts like the Tree Preservation Act, Public Health Act, Place of Public Act, etc.

9.5 The development plans available in the country today have been prepared under the State Town and Country Planning Acts, which vary in scope and contents from State to State. Most of these plans have not been effective tools for implementation as by and large they have not provided for programming and budgeting and implementation on a phased basis linked up with availability of resources as discussed in Chapter IV. They have at best served as negative instruments of control and with little or no relationship to the hinterland. Also, multifarious and variegated legal tools listed above and dealing with development control have precipitated over-lapping and, at times, inconsistent provisions in urban areas. Comprehensive legislation that integrates economic development with settlement planning should be promoted and the Model Urban and Regional Planning and Development Act, which has been recommended by the Union Government to all States to enact should be pursued with renewed vigour, preferably in lieu of existing legislation but at least supplementary to such legislation where existing state and local government situations necessitate adjustments.

9.6 Zoning Regulations have found widespread acceptance as a means for providing public control over land development. Similarly, sub-division regulations which prescribe the minimum requirements to be met primarily by developments on the fringe of urban areas have been implemented as a means of ensuring that new developments will meet certain acceptable design standards. They are valid only if they substantially help in protecting health, safety, welfare and amenities. The Model Act referred to earlier, caters for zoning and sub-division regulations as part of statutory comprehensive development plans. Some State planning legislation however, cater for such regulations but as of today only Delhi and Bombay have clear cut zoning and sub-division regulations as part of the statutory planning process. To encourage such regulations, the Central Government through the Town & Country Planning Organisation brought out a Model State Zoning Act in 1970 as a guide for States to enforce where the comprehensive Model Regional and Town Planning and Development Law is not enacted. This Model Zoning Act was supplemented by the Model Land Use Zoning Regulations—1975 so as to include mixed land uses as an integral component of the urban land development process.

9.7 Efforts need to be made to integrate zoning and sub-division regulations in Development Plans so as to conform to overall land use patterns and within prescribed densities. Thus, though ceiling on maximum urban holdings are indicated under the Urban Land (Ceiling and Regulations) Act 1976, sub-division rules prescribe plot sizes not permissible below a certain minimum. These rules are supported by Building Bye-laws applied at the city level as a municipal function. Latterly some conflicts have surfaced in the application of building bye-laws with local authorities who look after this aspect in areas declared as development areas. In Delhi, attempts at unified building bye-laws have been finalised and even zoning and sub-division regulations controlled by the Development Authority but applied by the Municipal Corporation under delegated powers in their areas have been refined to enable a uniform interpretation. The objective in all major urban areas in India should be to tighten up and speed up the approval process for land development through clear rules and regulations so as to reduce uncertainty and speculation. In this regard difficulties arise as the number of Urban Development Authorities increase and take over some city functions from Municipal bodies of long standing. (The Task Force on "Management of Urban Development" is making recommendations concerning the relationship of urban development authorities with Municipal bodies).

9.8 Controls like zoning regulations, sub-division rules, building bye-laws and authority to approve layouts are means of directing urban growth. These techniques which are negative restrictions on the use and development of land have been borrowed from advanced countries especially U.S.A. where itself their adequacy is currently being questioned. Many of the standards set in these regulations are very high and which are more suited for affluent societies and not for settlement patterns of low income families. Such standards make illegal by definition, any shelter affordable by low income families. There is urgent need for the modifications of such standards. In this context, it may be difficult to have one unified set of building bye-laws covering the entire city due to varying life styles prevailing in the old core, newly developing areas and the urban and rural villages.

Assembly and Development of Urban Land : What can be done

9.9 The last Chapter focussed on the problems that have arisen in the timely supply of serviced and developed urban land in quantities which are adequate to match the demands arising as a result of rapid urbanisation. It is clear that the approach towards the development of urban land will have to be changed in order to accelerate the process of development of the land.

9.10 Land policy instruments can be classified according to their operation through the market or as direct measures allocating land to different groups. Public authorities need to use both indirect as well as direct methods of intervening in the market. Indirect methods should essentially aim at curbing speculation as well as encouraging the private supply of developed land while direct methods should be mainly concerned with making available increased volumes of developed land.

Indirect Methods

9.11 The existence of uncertainty is the main cause of speculative activities which result in the decreased supply of urban land. It is therefore necessary to take various measures which reduce the degree of uncertainty in the land market by increasing the amount of information available.

Planning Notification

9.12 The Task Force has recommended systematic planning procedures at the city level. If this is done it is important that adequate information be available in the plans that are articulated. Since a public authority must provide various services, of which roads, transportation, electricity, and water are the most important, uncertainty about the future is decreased if plans for these services are announced considerably in advance. Both buyers and sellers can then have better information on which to base their actions. Efficiency of land use is likely to increase assuming that the planning decisions are good.

Approval Process

9.13 A tightening up of the approval process for land development can reduce uncertainty and speculation. A reduction in time required for such approvals, clarification of rules and regulations and predictability of approval would have the effect of reducing uncertainty. In the current circumstances, this applies particularly to all the land frozen under the urban land ceiling act.

Property Tax

9.14 A well administered property tax can do much to regulate the land market. If properties are valued frequently, undesirable speculation will be dampened considerably since taxes would have to be paid on unrealised gains. There is little reason why vacant lots should be taxed at lower or higher rates as long as they are revalued frequently. The holders of vacant lots should be given

signals—through rising assessments with rising values—indicating the opportunity costs of their holding the vacant land. There is a genuine administrative problem of frequent land valuation but this can be systematised as well for it to be feasible. The Task Force on “Financing of Urban Development” has made recommendations to this effect. The main issue to note here is that a well administered property tax helps in bringing surplus land into the supply for development at the right time when it becomes uneconomic to carry it as a non-revenue yielding asset purely for the purpose of making capital gains.

Information Exchange

9.15 *Land Price Publication System* : The last Chapter documented the serious concern being expressed at the perceived high increases in urban land values in the metropolitan areas. There are, in fact, no systematic data which can make it possible to document the actual movements in land prices in any of our cities. It is therefore difficult to reach precise conclusions on the actual pattern of land value increases and hence to identify the casual factors underlying land value increases. It is therefore important that systematic data be collected so that the facts are clear. In addition, good data on land values would help in the assessment of property taxes, capital gains taxes and the wealth tax. The Task Force views the issue to be of sufficient importance that a separate chapter (Chapter XI) is devoted to a proposal for the establishment of a *Land Price Publication System*.

9.16 *Register of Owners* : The existing system of land records is quite inadequate in most cities. There are no authoritative records of existing owners of the different plots in cities. It is therefore necessary to initiate a system of land ownership records. Since this would be a very large and expensive exercise, a beginning may be made with systematic registration of all new transactions. Schemes may also be begun in selected cities for preparing a comprehensive register of all land owners, particularly those on the urban fringe.

9.17 *Standard Price System* : It is important to regulate the agricultural land prices prevailing on the fringe so that orderly development of land takes place as cities expand. Area on the fringe of urban areas can be designated in rings and zones and a “standard price” announced (based on actual value) for each area in a base year. Subsequent to that, inflation adjustments can be announced every year along with other real price rises that are observed to occur around the notified areas. It should be feasible for such a system to be initiated in the existing 12 metropolitan cities and, as experience improves, extended to other class I cities and further. This would be useful for curbing speculation in the fringe areas and bringing land into development at the right prices and at the right time.

9.18 The various measures suggested above will essentially increase the amount of information available to both those holding vacant land which can be developed as well as those who need land for development and habitation. These measures would therefore promote the supply of serviceable land at the right time as well as at the right locations.

Direct Methods

9.19 Considerable space was devoted in the last Chapter to a discussion of problems that have arisen in the large scale acquisition of land and its subsequent development and disposal. The modalities for achieving public control of land can involve several elements and a continuation of approaches to the assembly, development and disposal of urban land will have to be followed in order to accelerate the supply of serviced land.

9.20 *Land Acquisition* : The problems that are being encountered in land acquisition do not mean that this method should be entirely abandoned to bring raw land in urban use. Some of the measures suggested above—the implementation of a standard price system along with the maintenance of registers of land owners—should help in encountering the problems that have arisen. The approach should be to find ways to avoid the legal and other impediments that occur in the acquisition of land and which are essentially related to the magnitude and style of compensation offered. Large tracts of land should not be notified at a certain time and actual acquisition conducted years later at the grave expense of agriculturists. Any land acquisition activity must make adequate provision for reasonable compensation of the farmers whose land is acquired and, more important, for programmes for their rehabilitation through training and employment, and share in developed land. But land notified at any given time should be acquired within a time frame of 2-3 years. If a standard price system is introduced in urban fringes, the compensation issue would be much easier to handle as well being much fairer than the existing system. It should now be recognised that ways other than land acquisition will have to be found for land assembly and development to meet the emerging needs of the future.

Land Readjustment

9.21 Land development through public control can also be done through a process of "land readjustment" schemes or other methods based on similar principles. The core of the idea is to compensate original owners of acquired land in kind by returning portions of the serviced developed land. In brief, land readjustment is a process whereby a public authority assembles numerous small parcels of raw land without paying monetary compensation to the owners, services and sub-divides the land for urban use, returns a portion of the resulting building sites to the organised owners in proportion to the value of their land contributions and sell the remaining sites to cover all public costs. Hence land readjustment is a temporary form of public ownerships to achieve unified control over large areas and means of financing public service installation during the crucial land development stage of urban growth. Such schemes, with variations, have been used very efficiently in Korea, Taiwan, Japan, Australia and West Germany. A number of variations are possible : owners can be given equity participation in the serviced land as opposed to actual land; the proportions of land returned can be varied according to social policy; some plots can be auctioned for recovery of development costs etc.

9.22 The wide spread adoption of such a system could solve many of the problems encountered in large scale acquisition development and disposal of land.

The Task Force felt that this can be a major initiative in land policy in the country hence the next chapter (Chapter X) is exclusively devoted to examining the feasibility of such an approach in India along a suggestion for its practicable adoption.

9.23 *Right of Pre-Emptive Purchase* : As a measure against speculation and for the future registration of land transaction at the fringe, the public authority should have the right of "pre-emptive purchase" whereby it would have the right to purchase any transacted plot at the stated price plus a designated percent, say 15-20 percent.

9.24 The main feature of most of the land policy measures suggested above is that the approach towards land development should be a positive one including the participation and cooperation of people rather than one of legalistic adversistiy and compensation.

Urban Renewal and Redensification

9.25 Most Indian cities and towns have outgrown the functions and purposes for which they were built. The last century and a half have seen few notable attempts—except in the work of two or three metropolitan Improvement Trusts with the application of what Patrick Geddes called conservative surgery—to remodel the functions and relationships of their several parts, except the construction of what are known as Civil Lines on their peripheries which still further pulled their configurations out of shape.

9.26 Most cities down to medium and even sub-divisional towns are now survivors of past city concepts, functions and distributions. Most of them are now relics abounding in horizontal single or double storey sprawl, containing liberal expanses of ill-kept garbage space or jungle of what once was well-tended private or public gardens, large fastering ponds and tanks which once were guarded reservoirs of safe, potable water, abandoned derelict factories or rather artisanal manufactories, and above all, large plot inefficiently used government structures and vacant lots. The traffic circulation network was originally laid out for hand or animal driven carts and pedestrian traffic unsuitable for economising on current transport costs.

9.27 To take the classic example of Bombay, Calcutta and Madras, if one flies low over these cities, one will be amazed over the abundance of (1) green, sliming expanses of ponds that are no better than noxious cesspools, (2) derelict factories, yards and manufactories and warehouses; (3) anachronistic relics like old type textile, spinning and ginning factories, (4) vast areas of semi-derelict low-height horizontal houses, more correctly tenements; (5) spacious backyards, gardens and courts unkept and full of garbage; (6) vast areas of government owned land interspersed with inefficient structures. The sight of so much unused and inefficiently used, yet most valuable lands, suddenly comes home as a startling discovery. What is even more baffling is that ownership of most of these derelict but invaluable spaces is disputed or under prolonged litigation bringing returns to nobody.

9.28 Let us take another example : the famed Calcutta Municipal Market in front of the Calcutta Corporation Offices. It is a single storey sprawl over many acres of some of the most expensive land anywhere in the world where everything under the sun "from soap to nuts", as the phrase goes in Hong Kong,

can be had under one roof in orderly rows and blocks. Yet the same amenity could be secured many times over, along with extra amenities of under-ground garages, private housing, hotels, office spaces, open air and closed door recreational facilities, eating places, even flatted factories and what not if this vast space were intelligently designed and built upon up to say, 16 or 20 storeys.

9.29 Most Indian cities, paradoxically enough, are not built densely enough, do not make use of modern construction technologies enough to augment their economic, manufacturing, servicing, wealth producing and residential viability.

9.30 A very economical and practical way of rejuvenating such towns and cities and strengthening their economic, social and cultural status is to renew and redensify their inefficiently used space and derelict structures. Some fresh all-Union legislation or modification of the Land Acquisition Act of 1894, or changes in the existing charters of City Improvement Trusts may be necessary.

9.31 To start with, all vacant and derelict lands of the types described earlier along with other derelict but currently used properties around each should be enumerated, surveyed and brought under schedule as a first step. Second, they should be notified for public acquisition or the mechanism of the Land Readjustment System elaborated elsewhere in this Report. Third, steps should be taken to fill them up and reshape them with small or large city blocks for development and construction. Fourth, development, construction and ownership may be free-hold or preferably long-term leasehold which for all practical time horizons will amount to free-hold. Fifth, development, construction and ownership should be made competitive between government, municipal bodies, cooperative and registered societies, and private corporate bodies.

9.32 Nobody needs to be displaced or forcibly ousted from his property. There need be no compulsion anywhere. Even choice will be voluntary and rational for the chooser's own benefit and perception. Once a block is selected and notified more vertical (upto 5 storeys), development and its detailed layouts and plans published, the first charge on the developed property will be the choice of the original owners of the land and those displaced from peripheral lived on properties, who should be entitled to residential or commercial space equivalent in value to that of the land surrendered or acquired. The second charge will be on public utilities, amenities, access roads and recreational spaces within the block. The third will be on those applicants who will be willing to buy residential or commercial or factory space in the developed property by surrendering their existing property to the developer for redevelopment. This will facilitate block transfer of land for fresh redevelopment and renewal.

9.33 This process may go in cycles for which the initial funds will have to be organised either by setting up a financing body or legislation for raising of loans.

9.34 Several improvement trusts have in the past worked their principles in practice and yet they have not been allowed to be extensively practised no doubt by monopoly and vested interests.

The matter has, however, acquired an urgency that no longer be ignored.

Appendix 9.1

Some Constitutional Provisions Concerning Land

Article 19(1) (f) All citizens shall have the right to acquire hold and dispose of property.

Article 19(5) Nothing in [Article 19(1) (f)] shall affect the operation of any existing law in so far as it imposes, or prevent the state from making any law imposing, reasonable restrictions on the exercise of any of the rights conferred by the said clause either in the interests of the general public or for the protection of the interests of any Scheduled Tribe.

Article 31 (2)
25th Amendment No property shall be compulsorily acquired or requisitioned save for a public purpose and save by authority or law which provides for acquisition or requisitioning of the property for an amount which may be fixed by such law or which may be determined in accordance with such principles and given in such manner as may be specified in such law; and no such law shall be called in question in any court on the ground that the amount so fixed or determined is not adequate for that the whole or any part of such amount is to be given otherwise than in cash..”

Article 31A (1) Notwithstanding anything contained in Article 13, no law providing for

- (a) the acquisition by the State of any estate or of any rights therein or the extinguishment or modification of any such rights, or.....shall be deemed to be void on the ground that it is inconsistent with or takes away or abridges any of the rights conferred by article 14, article 19 or article 31:Provided further that where any law makes any provision for the acquisition by the State of any estate and where any land comprised therein is held by a person under his personal cultivation, it shall not be lawful for the State to acquire any portion of such land as is within the ceiling limit applicable to him under any law for the time being in force or any building or structure standing thereon or appurtenant thereto, unless the law relating to acquisition of such land, building or structure, provides for payment of compensation at a rate which shall not be less than the market value thereof.

X. Innovative Methods of Land Assembly and Development : Land Readjustment and Town Planning Schemes

Introduction

10.1 A review of the existing methods of land acquisition and development has revealed that a large number of problems are now being encountered in the acquisition of land for urban development. It is increasingly being found by public agencies that the reason for delays in the implementation of housing and other land development schemes is that land acquisition procedures take an inordinately long time. State Housing Boards have found this to be a vexing impediment in the implementation of their housing schemes. This is also emphasised in an interim evaluation of the scheme for the Integrated Development of Small and Medium Towns (IDSMT).

10.2 Land acquisition for urban development is done under the Land Acquisition Act which allows compensation to the farmers at the market value of land at the time of notification. First there is usually a large time gap between notification and actual acquisition and compensation. This deprives the farmer of the market value of agricultural land at the time of acquisition because the compensation is not indexed for inflation. Second, even if the farmer does receive the actual market value at the time of acquisition, this pays for this asset but does not compensate him for his other costs associated with acquisition—mainly loss of occupation. Therefore, it is no wonder that people went to court in an attempt to prevent or delay acquisition. The public authorities also suffer because the costs of projects increase with delays. Planning itself becomes difficult. Lastly, the public at large suffers because land is not developed at the right time and in adequate quantities leading to eventually very high land values as well as housing costs. It is therefore necessary to think of alternatives that will quicken the process of land assembly and development.

10.3 This paper describes two methods—land readjustment as used in a number of countries in the world and land pooling as used in some States in India. Land readjustment is suggested as a practical alternative method for implementation in India. It is not being suggested that this is used in all cases and of land assembly and development. It is merely being offered as an addition to the existing methods which can be utilised for high social benefit in many cases where land in the urban fringe has to be developed for urban use.

The Land Readjustment System

10.4 “Land Readjustment” has been used extensively in Korea, Japan, Taiwan and Australia and in some places in West Germany. In Australia, this process is generally known as land pooling. This process has been found to be quite effective in terms of both planning land uses and financing public investments.

10.5 In times of rapid urbanisation a key problem is the rapid development of land at the urban fringes so that the supply of developed land keeps pace with the demand for housing from the expanding city population. Investments in land development are expensive and public authorities often lack the capital funds required. The result is a constriction in the supply of developed land and consequently large increases in land prices as well as housing prices. The process of land readjustment loosens the capital funds constraint and can therefore help in accelerating the pace of land development.

10.6 In brief, land readjustment is a process whereby a public authority assembles numerous small parcels of raw land without paying monetary compensation to the owners, services and sub-divides the land for urban use, returns most of the resulting building sites to the original owners in proportion to the value of their land contributions, and sells the remaining sites to recover all public costs. Land readjustment is therefore a temporary form of public ownership to achieve unified control over large areas and a means of financing public service installation during the crucial and expensive land development stage of urban growth.

10.7 In recent years this process has been used most extensively in South Korea and a little earlier in Japan. Its mode of operation in Korea is described in some detail below.

10.8 In India, before land acquisition is done on a large scale the fringe areas of a city are notified as part of a Master Plan for imminent urban uses. Similarly, in Korea various areas are declared as land readjustment projects, either upon initiation by the Government or by petition from a qualified percentage of the land owners in the readjustment area. Once this is done the public authority prepares a plan for the entire area in terms of the new land uses proposed. Thus, site plans are prepared for residential plots, streets, schools, parks, etc. The infrastructure investment in roads, sewerage and sanitation, water supply etc., is then made by the public authority. The public authority then assesses the value of the developed land and retains as many plots as necessary to pay for all the infrastructure costs. The remainder of the developed land is returned to the original owners in proportion to the initial contribution made by each—as far as possible near or within their own original land contributed. The farmers continue farming all through the conversion, as long as possible to keep disruption at a minimum.

10.9 The main advantage of this scheme is that it provides a method which minimises public expenditure in the conversion of raw land to developed urban land on the one hand, while, at the same time, the original owners who are usually farmers end up with reasonable compensation. Typically, the value added by the investment in urban infrastructure is much higher than actual costs. Hence, when the farmers receive a fraction of their original land as serviced land, they are quite content because the new value of even the truncated land is far higher than the value of their original land. The public authority also benefits because it obtains land for all the common areas (streets, parks etc.) free and, moreover recoups its infrastructural expenditure by selling a portion of the land as residential, commercial or industrial plots. This procedure is also consistent with planned development since the whole scheme has to be administered by a public agency as part of a development plan.

10.10 There, are however, a number of questions that arise. What is the price at which the land should be sold by the public authority? What is the price at which original owners can sell? Naturally the proportion of land held back for sale by the public authority depends on the price at which it is sold. Should the public authority also capture a greater share of betterment than just the costs? the original owners would then have smaller gains from the whole process. In deciding on the compensation that the original farmers receive it should be kept in mind that they suffer the capital asset (land) lost to urbanisation:

- loss of agricultural income during conversion
- the ultimate cost of moving
- the displacement during conversion
- loss of occupation

Hence the gains in value that the original farmers receive in terms of value of land by the process of land readjustment are not all actual net gains.

10.11 What is really being done by the process of land readjustment is that betterment as a result of public investment in infrastructure is being captured in kind in the form of land contributions that the original owners make to the public authority. It obviates the need for financial transactions which both parties typically find it difficult to make. The public authority does not have to find the cash for acquisition and the farmers do not have to find it for a betterment tax.

Town Planning Schemes

10.12 The land readjustment system may be compared with the Town Planning (TP) Schemes as they are operated in Maharashtra and Gujarat. The first step is to identify an area for the preparation of a town planning scheme which is essentially for the upgradation of an area in terms of infrastructure. A map of existing land holdings and of existing infrastructure is prepared. The new plan usually part of a development plan, is then super imposed on the original showing the changes proposed in the TP scheme including sites to be acquired for public purposes like schools, gardens, playgrounds, etc. The remaining land is divided into the final plots for being allotted back to the original owners, which is in proportion to their original holdings.

10.13 Estimates for the construction of roads, water supply and for other works proposed to be carried out in the TP scheme are worked out.

10.14 A financial statement for each plot is prepared. Two amounts are calculated. First (A) is the notional compensation that should be paid to the original owner for the portion of land acquired from him for the TP scheme. This is the value of the acquired portion of the land at the original i.e. pre T.P. scheme price. Second (B) is the notional betterment achieved for the plot as a result of the T.P. Scheme. This is the increment in value of the final plot the difference in value after betterment and before. The allottee is usually expected to pay 50% of this betterment Value (C). The net amount payable is the difference between the owners contribution (C) and the acquisition compensation value (A).

10.15 C usually exceeds A and this difference is supposed to pay for the costs of infrastructure invested in the area. In practice this does not happen in many cases because of long delays between the declaration of a T.P. Scheme and its execution. All the values given above are calculated with reference to a fixed date which is the date of declaration of intention of the scheme by the planning authority (the Municipal Council), the increment and net-contribution remaining frozen at the level of values at the time of declaration while costs incurred actually are at a much later date. This would not matter if prices remained stable for long lengths of time (e. g. in the fifties) but this is no longer the case.

10.16 The procedure for these schemes is quite long drawn out. After the above calculations are made and the whole scheme is worked out, it is submitted to the Government for approval. The Government appoints an arbitrator after approving the scheme. The arbitrator hears each individual owner as well as the planning authority on the compensation awarded, the reconstitution of plots, etc. and then finalises the award. These awards are then notified to each owner as well as physical demarcation of the plots done. The owners can still appeal to a tribunal on the value of their incremental constitution (C): they cannot challenge the layout nor the original value (A). The arbitrator thereafter finalises the whole scheme and again sends it to the Government for final sanction—after which the scheme comes into force on an announced date. The acquired lands vest in the planning authority from that date and construction work can begin.

10.17 These schemes have been in operation in Maharashtra for about sixty years. About 77 schemes have been taken up during this period in the State by which about 6000 hectares have been developed. Although these schemes have been found to be a viable method in many cases, the main problem encountered has been the extremely long time taken between announcement of the original scheme and its completion. An analysis of 5 recently completed T. P. Schemes in Maharashtra reveals that the average time taken was about 14 years, ranging from 11 to 16. In other words, if a T. P. Scheme was announced in about 1964-67, it was completed in about 1978-80. The betterment contribution was seldom paid for the total development costs though they usually amounted to over 60 percent of the costs. On average, about 30 per cent of the original land was taken by the public authority for public purposes. The increment in value of the original plots revealed a wide variation from barely 10 percent to over 100 percent. (Details on these data are given in Table 10.1).

10.18 Other States have also used similar schemes for the purpose of land development although seem to have been most popular in Gujarat and Maharashtra. They are somewhat similar to the land readjustment schemes but have crucial differences which obviate the advantages of the land adjustment idea. In principle they are nearer the idea of a betterment tax for infrastructure investment except that the betterment tax is taken partially in kind (the land contribution) and partially in cash. Moreover, most of these schemes are for upgrading already urbanised area. They are seldom employed for conversion of agricultural land to developed urban land.

Land Readjustment and Town Planning Schemes Compared

10.19 As mentioned the main drawback of T.P. Schemes is the extremely lengthy procedures used and the inordinate delays in their implementation. One main advantage of the land readjustment idea is that there are no financial transactions between

Table 10.1*Information on Five-Town-Planning Schemes from Maharashtra.*

S. No.	Year of declaration of scheme	Year of scheme coming into force	Development cost of scheme ('000 Rs)	Total betterment contribution as % of cost.	Area of original plot ('000 M ²)	Area returned to owners	Value of undeveloped plot without structures ('000 Rs)	% Increase to value of undeveloped plot.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	1964	1978	263	88	77	68	12,91	36
2.	1964	1979	775	64	1116	79	1,20,77	9
3.	1963	1979	860	77	1408	69	16,27	82
4.	1967	1979	590	195	55	73	19,09	124
5.	1966	1979	80	37	11	73	2,15	30

the original owners and the public authority. There are therefore fewer disputes over valuation and there are no financial bottlenecks. In T. P. Schemes, the valuation is done with reference to the date of the announcement of scheme while payments are made many years later while costs of infrastructure may have risen considerably during that period. As a result, both, the owners on the one hand are unhappy since the valuation of their land contribution goes obsolete; on the other the public authority is unhappy since the infrastructure costs greatly exceed the betterment contribution.

10.20 The main differences between T.P. Schemes and land readjustment schemes may be listed below :-

(1) Land readjustment (L.R.) usually involves the conversion of raw agricultural land to developed urban land while T.P. Schemes are usually for infrastructure investment in already semi-developed areas.

(2) The land taken by the public authority in L.R. Schemes is partly for public uses and partly for plots of sale. The land taken in T.P. Schemes is exclusively for public uses.

(3) There is usually much greater participation by the original owner in L.R. Schemes and therefore involves fewer disputes. The T.P.

implemented in a highly legalistic manner. There is little participation by the original owners. This leads to long drawn out legal procedures.

10.21 (4) There are no financial transactions in L.R. Schemes: raw land contributions are essentially used as barter in return for development of land. In T.P. Schemes the original owners have to contribute a betterment tax calculated in money terms and they are, in turn, compensated financially for their land contributions.

10.22 The T.P. Schemes would therefore approximate L.R. Schemes if additional land were taken from the original owners as betterment contributions rather than for cash compensation.

Land Readjustment in India: The case of Vallabh Vidyanagar

10.23 The one example of large scale land development in India which seems to correspond to L.R. Schemes is the building of the University town of Vallabh Vidyanagar in Kheda District in Gujarat. The late Sardar Vallabhai Patel had visualised a 'rural' agricultural university near Anand. The Character Education Society took up the project and decided to use L.R. principles for the acquisition of land. All the farmers in the area (which was entirely agricultural) were involved in the project and were requested to contribute 50% of their land for public purposes. The rest 50 per cent was to be developed into plots and returned to the farmers. A meeting was called in order to explain this to them. They were convinced that though they were losing upto 50 per cent of their land, the remaining 50 per cent in terms of developed plots would be far higher in value. The entire development was done by a special organisation created for this purpose. It was responsible for the development of the township as well as allotment of the developed plots to the farmers.

10.24 The system appears to have worked quite well. The farmers looked upon their own project and therefore responded to it actively. No land acquisition was resorted to in this project, no legal procedures had to be followed and yet the required land was made available at the right time.

10.25 It is possible that similar procedures may have been used in different parts of the country for some particular projects. The L.R. Scheme is not therefore an entirely alien idea. It should therefore be possible to use land readjustment on a large scale for the purpose of rapid development of land for urban purposes in preference to the standard method of large scale land acquisition.

10.26 There are also some problems with the L.R. procedure. The initial owners get back a number of serviced sites (according to the new plan for that area) of which they themselves may only want to use one or two for their own purposes. Their compensation for the land contributed depends on the sales of these sites. It is quite possible that this can result in two kinds of problems. The first is that in their need for cash they could get quickly bought out by larger developers, and, perhaps, at relatively low prices. Consequently, the larger developers could then hold on to the land and speculate until prices rise. The second problem could be the opposite one where the farmers get no buyers for some length of time and are left with non-revenue yielding serviced sites.

10.27 In our conditions, the Government would have to intervene in either of these two cases and assist the farmers in the sale of their plots. From the social point of view, it can be argued in either of the two above cases, housing development on the serviced sites would be slowed down and one of the main objective of the scheme would be lost. The latter problem (of no takers) should not arise in our situation for a considerable time to come because of the excess demand for serviced sites that is a characteristic of Indian cities. This could be helped financially by the more expanded provision of housing finance which can enable individual buyers to finance their purchase. The other intervention that the public authority could do is to establish an intermediary for such a scheme (or group of L.R. Schemes) which bring prospective buyers or developers to the original owners. Such an organisation would also guard against the farmers being bought out by large developers at too low prices. These problems can essentially be sorted out if careful planning is done so that there is no mismatch between the demand and supply of serviced sites at the time of conversion.

10.28 Another set of problems that needs to be considered is the rehabilitation of the original owners since they lose their occupation. It is argued that even if they get adequate compensation by such a procedure (higher than they would otherwise receive through land acquisition) they are still left without sources of income. It is further argued that the farmers are quite often likely to be illiterate and not used to the handling of the large sums of money and which they would not be able to invest profitably to yield a regular income. All these difficulties exist with the standard land acquisition method as well. The main difference is that in L.R. Schemes they would have a larger amounts of cash than otherwise. Not that farmers are not canny. Contrary to our pet notions of them, and they will not think of alternative investments including the purchase of equipment, agricultural land elsewhere. But it is true that they lack appropriate information and need guidance. Two suggestions can be made here. One is that each L.R. Scheme should contain a rehabilitation (employment oriented) component—as should all land acquisition schemes. Second is that the public authority could assist in investment of funds so that regular streams of income flow to the original owners—should they so desire.

10.29 The next section works out a possible mode the operation of land readjustment schemes in India.

A Practicable Scheme of Land Readjustment

10.30 It now remains to be shown that the land procedure is practicable as well as desirable in India from the financial and social point of view.

10.31 Assume that a land readjustment scheme is operated in an urban fringe of 100 hectares. There are presently 'n' farmers who own land. It is desired that the resulting scheme has the following aims :—

- (i) Serviced sites are available at reasonable price
- (ii) Sites of different sizes are available to different income categories

- (iii) A reasonable number of sites are available for a Sites and Service Scheme to serve the need of the poor,
- (iv) The scheme is to be totally self-financing
- (v) The original farmers (owners) are compensated considerably better than they would be under the land acquisition procedure.

The site plan for the scheme is prepared keeping in view all these objectives. The resulting land use plan is given in Table 10.2.

10.32 The problem now is the pricing of the developed land and the proportion of land to be given back to the owners. In view of the social objective of including a Sites and Service Scheme in this project it is decided by the public authority to retain all the plots of less than 40m² for this scheme. The price at which they would be sold may be regarded as the base price. Let this be p_r . It is decided that the prices of the saleable land will be multiples (R_i) of this price. The price structure decided is as follows :—

Land Use	R_i
U ₁	1
U ₂	2
U ₃	3
U ₄	8
U ₅	8

Table 10.2

A Sample Land Readjustment Scheme

Total Area : 100 ha. Type of land use (ui)	Area (Ha) (Li)	Average Size of plots (m ²)	No. of Plots
A. Residential			
U ₁ Plots : Less than 40m ²	25	31.25	8000
U ₂ Plots : 40m ² to 100m ²	25	62.50	4000
U ₃ Plots : Larger than 100m ²	10	200	500
B. Commercial and Industrial			
U ₄ Plots : 25m ² to 75m ²	0.50	50	100
U ₅ Plots : Larger than 75m ²	2	400	50
Total Marketable Land	62.50		
U ₆ Open Space	10		
U ₇ Schools, Dispensaries etc.	5		
U ₈ Roads	22.50		
Total Land	100		

We can define the weighted marketable areas as

$$\sum_{i=1}^5 L_i R_i$$

and its value is then

$$P_r \sum_{i=1}^5 L_i R_i$$

Let the cost of servicing land be Rs. C per sq. m. The total cost of servicing the land is then

$$C \sum L_j$$

If the scheme is to be self financing, the weighted area to be retained by the development agency is

$$\frac{C \sum L_j}{P_r}$$

This is a useful approach because it is relatively easy to decide on P_r —the price at which the lowest category of land is to be sold. Deciding the price P_r and ratio of prices is of crucial importance. An underestimation of P_r would inflate the land required to be retained by the authorities and *vice-versa*. Similarly an underestimation of price ratio (R_i) would attract land owners to that particular land use/plot type, and may affect the mechanics of land redistribution and cost recovery. In this context the land pricing system described earlier would be very useful.

In the following calculation, 37.5 hectares of land developed to common public uses (U_6, U_7, U_8) are left out since they are not part of the available saleable land.

The total weighted area of the scheme

$$\begin{aligned} \text{is } \sum L_i R_i &= 25 + 25 \times 2 + 10 \times 3 + 2.0 \times 8 \\ &\quad + 0.5 \times 8 = 125. \end{aligned}$$

$$\text{Let } P_r = \text{Rs. } 50/\text{m}^2$$

$$= \text{Rs. } 5 \text{ lakhs/ha.}$$

The total marketable value is then

$$P_r \sum L_i R_i = 5 \times 125 = \text{Rs. } 625 \text{ lakhs.}$$

If cost of development C is around Rs. 30 per sq.m. (gross) the total cost of development $C L_r$

$$\begin{aligned} &= 30 \times 100 \times 1000 \\ &= \text{Rs. } 300 \text{ lakhs.} \end{aligned}$$

Thus out of the weighted land for readjustment of 125 the land necessary to be retained will be

$$\frac{C\sum L_i}{P_r} = \frac{300}{5} = 60$$

and the remaining 65 would be redistributed to the owners.

Table 10.3 gives one possible scheme for the sharing of the developed land. It shows that the public authority could retain :—

- (1) All the small plots for the sites and service schemes (25 ha.) (8000 plots).
- (2) All the commercial and industrial plots (2.5 ha.).
- (3) Half the large residential plots (5 ha.) (250) to make a total of 32.5 ha. out of marketable land of 62.5 ha. and total land of 100 ha. The original land owners therefore get back 30 ha. or 30 percent of their original holdings on average. (Note that what each person gets will depend on which land uses he wants).

The value of land returned to the owners should be
 $65 \times 5 = \text{Rs. } 325 \text{ lakhs.}$

Table 10.3

Pricing of Sample Land Readjustment Scheme

Type of Land Use (U_i)	Price Weight (R_i)	Area in land use (ha.) (L_i)	Price Rs./m ² (R_i/P_r)	Value of developed land (lakh Rs.) ($L_i R_i P_r$)	Land retained (ha.)	Value of retained land (lakh)
U_1	1	25	50	125	25	125
U_2	2	25	100	250		
U_3	3	10	150	150	5	75
U_4	8	0.5	400	20	0.5	20
U_5	8	2.0	400	80	2.0	80
U_i		62.50		625	32.50	300

The typical land price of fringe agricultural land is about Rs. 2 to Rs. 3 per sq.m. (Rs. 20,000 to 30,000 per ha.). Hence, the total value of original land is between Rs. 20,000 × 100 = Rs. 20 lakhs and Rs. 30,000 × 100 = Rs. 30 lakhs. The rise in value is then between

$$\frac{235}{20} = 16$$

and

$$\frac{325}{30} = 11$$

for each farmer. A tenfold increase in value should be enough to induce most farmers to agree to the scheme.

10.33 It may be noted that this simple scheme satisfies all objectives :—

- (i) Serviced land prices for residential use vary between Rs. 50 and Rs 150 per sq.m. These are now very reasonable land prices. (A 30 sq. m. plot would cost Rs. 1500, A 200 sq.m. plot would cost Rs. 30,000. With the usually permissible F.S. is the land cost would be less than 30% of the building costs on these plots).
- (ii) Sites of different sizes would be available for different income groups.
- (iii) 8000 sites are available for the poor
- (iv) The scheme is totally self-financing
- (v) The original farmers get 10 to 15 times the compensation they would get otherwise.
- (vi) Land for public utilities (U6-U8) do not have to be separately paid for.

Recommendations

10.34 The introduction of the Land Readjustment System is therefore eminently practicable from the point of view of financing given the current cost structure prevailing in India. The practical details of operating such a scheme, however, need to be worked out with more care. It is recommended that.—

1. The Ministry of Works and Housing should study the Kheda case and develop the lessons derived from it for the working of the Land Readjustment system as it may be applied in India and issue guidelines for its adoption by State Governments and local citylevel authority.

2. The Ministry of Works and Housing in conjunction with the Law Ministry consider the legal implications of operating land readjustment schemes. Necessary modifications to State Town Planning and other legislation may be suggested.

3. Specific attention should be paid to the organisational implications of these schemes. In particular the organisational assistance to farmers for the management of land received back by them should be considered as well as modes of rehabilitation assistance.

4. In view of the considerable experience of the States of Gujarat and Maharashtra, in the application of Town Planning Schemes, and that of Delhi in large scale land assembly and development, the execution of pilot schemes may be considered specifically in these areas. The Land Readjustment System may be considered for adoption in Delhi in the context of the urbanisation of its fringe areas in the framework of the Second Master Plan.

XI. Developing a Land Price Monitoring System

The Need

11.1 There is currently very serious concern being expressed at the perceived very high increases in urban land values particularly in the major metropolitan areas. There are no systematic data to actually show that land values have been increasing at "undesirable" rates in recent years; nor, if the perception is correct, is there a good understanding of the reasons behind the rise. Is it because of a major constriction in supply resulting from the urban land ceiling act, or has there been an upsurge in speculative activity in response to the general inflationary conditions prevailing in the country in the last few years? These questions would be difficult to answer without the availability of spatially disaggregated data on land prices in at least some of the largest of our cities. Over time, as a data system is built up, it would be possible to utilise the time series information to reach conclusions to some of the questions posed above. In addition, a good data on land prices would help in assessing property values for better collection of property taxes, capital gains taxes as well as the wealth tax.

11.2 Urban land price data is seldom collected on a systematic basis. In the United States it is only recently that their Department of Housing and Urban Development has begun to consider the possibility of systematic monitoring of land price information. Japan has, however, instituted a "Land Price Publication System" under the "Land Price Publication Act" promulgated in 1969. This Chapter describes both the comprehensive Japanese system and as the more recent attempts at land price monitoring in the United States. A system for India is then suggested.

Japan's Land Price Publication System

11.3 Land prices increased continuously in Japan for almost 25 years until about 1974. Indices for urban land prices increased as much as 27-fold in 20 years between 1955 and 1974. Although a major part of this increase was clearly due to the sharply rising demand for housing accompanying massive increases in income as well as in the rate of urbanisation during those years, it was felt that this had been exacerbated by undesirable speculative activities.

11.4 In order to counter these tendencies a "Land Price Publication System" was put into effect in 1969. "The System is intended to provide a reliable pricing guide to those proceeding to land transactions by regularly publishing adequate land prices for the purpose of formulating rational land prices". The system was first proposed in 1963 with a recommendation that professional real estate appraisers were to be trained and licensed by the Government. It was thought that once a corps of these trained appraisers exists the valuation of land in transactions could be done systematically and speculative valuations curbed. The appraisal work requires highly specialised knowledge, an abundance of experience, accurate judgment and proper communication, and it is only with specialists equipped with these abilities that the work can be done.

It took about 6 years for these suggestions to be accepted by the Japanese Diet (Parliament) and it was only in 1969 that the relevant Act was enacted. Meanwhile, however, almost 2000 licensed real estate appraisers were trained and registered. Measures accompanying the Land Price Publication System were :—

1. Restrictions on land transactions with respect to price and land utilisation according to the National Land Use Planning Act.
2. A heavy tax on transfer profits through speculative land purchases.
3. Restrictions on fund-financing for speculative land purchases.

11.5 The Government designed a nationwide examination for real estate appraisers : appraisers would be licensed only after passing this examination.

11.6 The Land Price Publication System, by which representative land tracts in and around larger urban areas are chosen, makes public the prices considered adequate for such land tracts so that they may serve as standards for land pricing in real estate transactions and also provide for the basis for calculation of adequate sums of compensation for securing land tracts to be used for purposes of a public nature. Thus the system serves the purpose of contributing to the regulation of land price at adequate levels.

11.7 The system was put in effect in Japan in stages. Starting in 1970 it covered only the three major metropolitan regions of Tokyo, Osaka and Nagoya and covering about 3500 sq. km. of area (about 1% of total national area). The area was divided into about 1000 units for which prices were published from representative land tracts. The coverage has been expanded gradually since then so that by 1977 the system covered just under 20% of the total area of Japan which includes all its urban areas and surrounding regions. Prices are published for about 15,000 representative land tracts from these areas. 'A representative land tract is defined as a unit of land where utilisation and environmental conditions are considered normal and which is found in an area where natural and social conditions make it evenly usable for common or similar purposes'. In such an extensive area a unit of land is chosen as representative and its price observed and published.

11.8 The published land prices are those considered adequate per unit are in the representative land tracts as of the 1st of January of each year. By an adequate price is meant the price which would have been quoted and accepted in free land sale transactions. The adequate price is determined by the Land Approval Committee on the basis of appraisals done at its request by at least two licensed real estate appraisers. The price of these representative land tracts are published every year through official gazette giving the address of each land tract, its land use and other details of availability of services in and around the plot. The National Land Appraisal Committee sends to the heads of farms, villages, etc. detailed documents concerning the representative land tracts. The average density of the representative land tracts is about 1 per km.² for residential areas and about 3 per km.² for commercial areas. The density is somewhat lower for industrial and quasi-industrial districts. The documents and maps

with the representative land tracts and prices which are sent to the heads of cities, farms and villages are then made freely available for consultation by the public.

11.9 Once the land prices are published every year, the price in every land transaction has to be certified by a licensed appraiser who has to take into account the published price of a similar plot of land in determining the price of the plot in question. Any major deviations must be satisfactorily explained by the appraiser. Public authorities also have to respect the published land prices. They form the basis for compensation awards for tracts of land acquired for public purpose.

11.10 The establishment of a land price publication system has the effect of stabilising land value increases and in helping the general public with better information on prices. It helps in making public many transactions which would remain hidden from the public eye. In Japan the widespread implementation of the system has coincided with a slowing down of the rate of increase in urban land prices. This is attributed much more to the overall slowing down of the rate of urbanisation and of the consequent narrowing of the gap between housing demand and supply. The land price system has essentially acted as a catalyst to make the land market efficient.

Monitoring of Urban Land Prices in the United States

11.11 Until recently, the price of urban land has been low in the United States relative to other countries because of the abundant supplies of developable land and public policies which encouraged this development. The picture, however, began to change in recent decades when in the 1950s and 1960s when land prices increased by at least 100 per cent as compared with the change in C.P.I. (Consumer Price Index) of about 30%. This difference was even greater in the 1970s when residential urban land prices may have increased by 600 to 800 percent as compared with increase in the C.P.I. of about 100 percent. The result is that the ratio of land in total property value in single family houses has risen from about 12% in 1950 to about 25 to 30% now. It is because of this problem that monitoring of land prices is being considered more seriously now. The effort was begun by organising a symposium¹ which invited scholarly papers on the problem of comparing urban land price indices. Three kinds of methods were suggested. First was collection of transactions information to construct land price indices. The main problems in this method are that (i) the number of transactions in any given year is limited and (ii) many transactions include built up property which makes it difficult to separate out the land value component. The second method extends the land transactions method to combine the transactions data with land and property attributes and to use multiple regression techniques to produce hedonic models of land prices. The results of these methods have not been encouraging and, moreover, are quite costly to operate as ongoing methods of monitoring land prices. Consequently, a third more inexpensive method was proposed which is in the process of being implemented. In principle the method is not dissimilar to the one used in Japan.

1. Urban Land Institute *Urban Land Markets : Price Indices, Supply Measures and Public Policy Effects*, Washington : Urban Land Institute 1980.

11.12 This method suggests that it is more reliable as well as economical to assemble representative land prices through the use of expert panels. The idea is to define a small number of different types of land use (e.g. commercial, industrial, residential plotted, residential multi-family etc.) and to classify a city into a grid with these uses marked. The grid would be composed of small homogenous sub markets defined by the type of predominant land use. Panels of land experts (e.g. real estate agents, local authority officials etc.) would be assembled and asked to fill in the land prices on the grid thereby emerging with a land value map of a city. This can then be tested against the available transactions data and consequently spatially disaggregated land value indices could be developed. The experiment had begun with the collection of information on just two kinds of land use : (a) plotted single family housing with all services and (b) undeveloped land on the fringe suitable for plotted development. The experiment has been quite successful and land price indices for a selected set of cities for these types of land use have begun to emerge.¹

A Proposal for a Land Price System for India

11.13 The problems in organising a land price system are likely to be even greater in India than in either the United States or Japan. The reason is partly that the urban land and property market in India is greatly affected by a host of regulations like rent control legislation and building and other controls that it is highly segmented and there are many temptations and loopholes for concealment. The promulgation of the urban land ceiling has exacerbated this problem. Secondly, there is increasing direct participation by the government in the land market through large scale land acquisition, development and disposal. Third, it is widely believed that a great amount of black money is used in land and property transactions. Reported transaction amounts are only a fraction of actual transaction amounts. Fourth, the large proportion of unauthorised housing activity drives by definition, a large number of transactions to remain illegal and unreported.

11.14 It is therefore suggested that prior to an eventual adoption of a comprehensive Japan type system, land price maps be developed for the four largest metropolitan areas in the country as a pilot project (in Bombay, Calcutta, Madras and Delhi). From the experience gained in this project proposals for a more widespread system could be adopted. The following steps should be taken:—

(i) All the four largest cities have competent metropolitan development authorities with considerable experience in planning at the city as well as local level. Already, the long established City Improvement Trusts in Calcutta, Bombay and Madras possess very valuable information banks on land values. It will therefore not be difficult to delineate relatively homogeneous residential sub-markets in these cities and thereby develop a grid which is not mechanically geometric but utilises the planning and other forms of zonification in use. These zones are likely to be about 100 to 150 in number (in Delhi the zonification system delineates just over 130 zones).

1. Information from this section from James E. Hoben "Monitoring Land Prices in the United States" in Mathew Cullen and Sharon Weolery "World Congress on Land Policy, 1980." Lexington Mass : Lexington Books 1982 and subsequent personal communication from M. Hoben of the U.S. Department of Housing and Urban Development.

(ii) Once this is done the expert panel method can be used to develop a time series of land values for recent years. The expert panel would consist of metropolitan authority officers familiar with specific zones, property assessors from the Municipal Corporation, real estate agents, developers and builders. There may be some difficulty in assembling such a cross-section of individuals in an expert panel under our conditions. An alternative could be to form two panels : one consisting of officials and the other of non-officials. The job of forming the latter could be entrusted to a research institute. There would then emerge an initial land value map of the city for recent years. This process should be completed in one year.

(iii) Concurrently, examination of transactions data from the Registrar's office can also be conducted. A pilot survey of transactions from 8 colonies in Delhi spanning about 25 years revealed that it is quite feasible to obtain useful data on property prices from these records. The problem of separating the value of built up property from land value can be avoided by observing only the vacant land transactions. This would reduce the volume of data to the relatively newly developing areas in any given year. A land values map would be constructed from these data. The problem of under reporting can be minimised by using the higher reported values from each sub-area.

(iv) A third source that is useful for compilation of land value data is the value of compensation paid by various public authorities—including public sector enterprises—for land acquired for public purposes. A special survey of public agencies would have to be conducted for this purpose.

(v) The three different land value maps would then be compared to arrive at the first comprehensive land value maps of these 4 cities. These results would then be examined closely and methods devised for ongoing monitoring of this type in the future.

(vi) At the same time the Ministry of Works and Housing should appoint an expert group to go into the possibility of starting a licensed appraiser system in the country during the Seventh Plan period. Such an expert group may consider the establishment of an "Institute of Licensed Appraisers" for the training and certification of licensed appraiser on the lines of the Institute of Chartered Accountants. This may be done in collaboration with the Ministry of Law.

(vii) The result of these initial actions should be expected to lead to a systematic introduction of a land price monitoring system for the major urban areas in the country by the beginning of the Eighth Five Year Plan.

(viii) The pilot scheme outlined above should be provided for specifically in the Seventh Five Year Plan as a special plan scheme under the Ministry of Works and Housing.

Technical Appendix I

The Determinants of Urbanisation

The Level of Urbanisation : The International Experience

1. The relationship between urbanisation and per capita income has been a long established one for international cross section as well as time series data. The hypothesis is that the shape of the relationship is logistic as expressed by an equation of the type

$$U = \frac{a}{1 + b \exp(-c y)} \quad \dots \quad (1)$$

where U is percent urban population and y is per capita g.n.p. Good fits are generally found for such an equation. A variant of (1) is the formulation of a quadratic equation :

$$U = a_0 + a_1 Y + a_2 Y^2 \quad \dots \quad (2)$$

If $a_1 > 0$ and $a_2 < 0$, this equation predicts U to start declining after some maximum, corresponding with the upper turning point in the logistic. A variable measuring the level of agricultural activity (A)—the share of the labour force in agriculture, for example, can be added as an additional explainer. An alternative is to include a measure of manufacturing activity (M) but this is not found to perform as well as A for international data. The idea is essentially to relate urbanisation with economic development and structural change in the economy : Y is a measure of economic development and A or M that of structural change. With the addition of A, (2) can be written as

$$U = a_0 + a_1 Y + a_2 Y^2 + a_3 A \quad \dots \quad (3)$$

2. Such an equation was estimated for data from 113 countries¹ for 1980. This included developed as well as developing countries. The best fitted equation was :

$$U_i = 67.20 + 22.97 Y_i - 8.52 Y_i^2 - 0.62 A_i \quad \dots \quad (4)$$

(2.68) (2.28) (9.26)

$$R^2 \quad 0.77$$

3. As is evident, the level of explanation achieved is quite high i.e. as simple a formulation as this is found to account for 77% of the variance in urbanisation levels in the world. A more direct estimation of the logistic (equation 1) can also be estimated here :

$$U_i = \frac{K}{1 + \exp(-(a_0 + a_1 Y + a_2 Y^2 + a_3 A))} \quad \dots \quad (5)$$

This can be simplified for estimation to

$$U_i \left(\frac{100}{U} - 1.0 \right) = a_0 + a_1 Y + a_2 Y^2 + a_3 A \quad \dots \quad (6)$$

[K is the limit of U_i when Y is high i.e. 100%]

1/ t values in parentheses.

U_i is per cent population in urban areas.

Y_i is per capita income in U.S. dollars.

A_i is per cent labour force in agriculture.

Source of Data : World Development Report, 1982
Washington : World Bank, 1982

11 countries were excluded because of lack of data :

Kampuchea, Laos, Somalia, Afghanistan, Vietnam, Mongolia, Albania, North Korea, Lebanon, Cuba, Iran. Singapore excluded as a city State.

The estimated equation was

$$\ln \left(\frac{100}{U_i} - 1 \right) = 1.05 - \frac{0.85 Y_i}{(1.81)} - \frac{0.35 Y_i^2}{(1.68)} + \frac{0.34 A_i}{(9.31)} \dots \quad (7)$$

$$R^2 = 0.742$$

Again, the level of explanation is good.

Using $Y_i = \$ 192$

and $A_i = 66.7\%$ for India for 1981, the predicted value of the level of urbanisation is **22.8** per cent by equation (7) and about **26.4** per cent by equation (4). Hence the actual level of urbanisation in India is quite close to the trend line for the world : it is therefore difficult to argue that the level of urbanisation in India is too high in any sense. It is as would be predicted from the level of economic development in the country and the structure of the economy.

The Regional Pattern of Urbanisation in India : An Explanation

4. A similar framework can be used for attempting to understand the variance in urbanisation between States in India. Consistent data are now largely available for 1961, 1971 and 1981 (Except for population data, the other data on State Domestic product, agricultural production data, etc. have been taken for the nearest year to 1981 available).

5. Similar to the international estimations, the equations estimated here were :

$$U = a_0 + a_1Y + a_2Y^2 + a_3A + a_4t \dots \quad (8)$$

$$U = b_0 + b_1Y + b_2Y^2 + b_3M + b_4t \dots \quad (9)$$

$$U = c_0 + c_1Y + c_2Y^2 + c_3A + c_4M + c_5t \dots \quad (10)$$

Using the same symbols as before

6. A measure of State Domestic Product per capita at current prices was used for Y; the measure used for A was the share of male agricultural employment in total male employment; the value added per capita in the factory sector was used to represent M; and t is a time trend with 1961 = 1, 1971 = 2 and 1981 = 3.

The estimated equations are :

$$U = -7.8 + 0.08Y - 0.00004 Y^2 - 0.112 A + 0.67t \dots \quad (8a)$$

(0.41) (3.20) (2.77) (1.08) (0.74)

$$R^2 = 0.675$$

$$U = -13.9 + 0.08Y - 0.00004Y^2 + 0.05M + 1.14t \dots \quad (9a)$$

(0.98) (4.25) (3.73) (3.10) (1.11)

$$R^2 = 0.716$$

$$U = -4.3 + 0.075Y - 0.00004Y^2 - 0.09A + 0.04M - 0.96t \dots \quad (10a)$$

(0.27) (3.64) (3.24) (1.14) (2.74) (0.93)

$$R^2 = 0.726$$

(t — Statistics in parantheses).

7. Variables were added in a stepwise fashion to test for the stability of individual variables. The coefficients for Y and Y^2 are highly significant and have the predicted signs. The time variable does not add to the level of explanation. This suggests that there is no built in trend towards urbanisation over time. It argues against those who claim that much of the urbanisation taking

place is merely because of population pressure and is unrelated to economic growth. The consistently insignificant coefficient of β suggests that with stagnating income we would not expect increasing urbanisation over time.

8. As may be seen from equations (8a) and (10a), β has the expected negative sign but is not statistically significant. The output variable for M performs somewhat better. The coefficient for M is highly significant [equations 9 (a) and 10 (a)] and adds considerably to the magnitude of variance explained, despite correlation with Y (0.85). Hence, these estimations suggest a strong conclusion. The level of urbanisation in States in India is strongly related to the level of economic development in the State and, in particular the level of organised manufacturing activity.

9. It is of interest to analyse the implications of these regressions a bit further. The R^2 S obtained are gratifyingly high—in the range of 0.75. These equations succeed in explaining as much as 75% of the variance between states in urbanisation. Furthermore, if the definition of urban population is taken to include only towns above 20,000 population, and the dependent variable U is changed accordingly, it is found that R^2 increases to about 0.82. This is presumably because the definitional problems at the lower end of the settlement scale are eliminated. Consequently, the variation between states as well as over time that is due to inconsistent definitions is eliminated. One interesting feature of these estimates is that the maximum positive effect of income on urbanisation is reached at relatively low income levels and is reached in the range of about Rs. 750 to 950 per capita income (1970-71 prices) in different regressions.

10. In international data this turning point naturally comes at much higher incomes. The reason is essentially that this is a *ceteris paribus* result: if the share of agricultural employment or factory employment remains constant, this is in fact what would happen. This can be illustrated with reference to Punjab. Punjab now has the highest SDP but its urbanisation level of 27.7 percent is only the fifth among States. Increases in income without accompanying declines in agricultural employment or increase in manufacturing tends to keep the level of urbanisation down. It is admitted that it is somewhat tautological to say that without a decline in agricultural employment urbanisation will not increase. But when does this happen? This occurs in two kinds of situations. First, when income increases only in the urban sector, that is in a highly dualistic economy, without matching changes in the subsistence agricultural sector. Second when income increases in the agricultural sector because of labour using technological change—perhaps like in the Punjab. But both the situations have their limits. When urban/rural income disparities become too great, migration is induced: but the employment problem remains unless labour using urban technologies are found. Similarly, as may be happening in the Punjab, as agricultural incomes increase further and the demand for urban goods increases then increased demand for urban labour would tend to take labour from rural areas which would then also have the effect of quicker introduction of labour saving technology in agriculture. The results from the equations estimated would be consistent with these kind of changes in the economy.

11. Further insight is gained by comparing the fitted values with the actual levels of urbanisation. To the extent that the estimations reflect some “norm” the errors in prediction reflect “under” or “over” urbanisation. Consider the case of the poorer states first which have been found to urbanise—relatively rapidly in the past decade. Bihar and Orissa are found to be consistently “under” urbanised, i.e., they are expected to be more urbanised than they are. But this gap has been reduced consistently over the last 20 years, particularly in the last decade. This reflects the highly capital intensive nature of the industries in those states—given their income levels, albeit low, higher levels of urbanisation would have been expected. To the extent that the nature of industry has not changed over this period, and that this has been accompanied by agricultural stagnation, it would be valid to infer that this catch up phenomenon has been of the push migration variety. It was documented in Mohan & Pant (1982)¹ that this increased urbanisation in these states is largely accounted for by very high growth in urban population in the regions which have received the most industry. These, however, are still quite concentrated—in the Southern region of Bihar for example—so that the expected level of urbanisation is still higher than the actual even after rapid urbanisation in the past decade. Among the other poor states, U.P. is close to the predicted value in all years when small towns with less than 20,000 population are excluded.

1. Rakesh Mohan and Chandrashekar Pant “Morphology of Urbanisation in India: Some results from the 1981 Census” *Economic and Political Weekly*, September 18 and 25, 1982.

But if the total urban population is used the 1981 actual value is much higher than predicted implying over-urbanisation. This suggests that the acceleration in urbanisation in U.P. is essentially due to definitional changes as has been pointed out in the text. Otherwise, U.P. gives no cause for surprise. Madhya Pradesh was close to the predicted value in 1961 but has "over" urbanised considerably over the past two decades. This is true even if small towns are excluded and is therefore not a definitional problem. Given that industrial investment there has been concentrated in the Eastern region of the State, this result again suggests "push" from rural areas in Madhya Pradesh also.

12. Among other states, Kerala is consistently under-urbanised—this may be because of the definitional problems alluded to earlier. Haryana is also under-urbanised though less so in 1981—this is consistent with the productivity gains made there in agriculture and which have been labour using. Urbanisation is, however, catching up because of continuing income increases. The rest of the states—Andhra Pradesh, Gujarat, Karnataka, Maharashtra, Rajasthan and West Bengal may be termed normal in that their predicted and actual values are quite close in all three years.

Urban Population : Employment Multipliers

13. Having established that the pattern of inter-state variation in overall urbanisation found in India is quite consistent with a simple formulation of the relationship between urbanisation and economic development, it is now necessary to elaborate this further by attempting to find the determinants of the absolute levels of urban population found. The methodology adopted is essentially that of Mera¹ (1975) who has suggested a "layer" theory of urbanisation. The idea is to relate the magnitude of urban population to categories of basic employment, i.e.,

$$U_1 = d_1P + d_2S + d_3T \quad (11)$$

where U_1 is urban population, P, S and T are the basic employment in primary, secondary and tertiary sectors respectively. d_1 , d_2 and d_3 are then the population multipliers resulting from basic employment.

14. This formulation brings into focus a neglected aspect of urbanisation until now : the role of the tertiary or service sector in the generation of urban employment and population. The justification for this neglect is essentially the idea that all tertiary sector employment is derived from the demands of agricultural and manufacturing activities. This assumption is now relaxed and the tertiary sector can now have at least some component of "basic" employment.

15. Equation (11) merely says that each type of basic employment adds a layer of urban population which is additive. Interactions between P, S and T are ignored by definition since they constitute "basic" or "export-based" or "exogenous" employment. In the primary sector all male agricultural employment may be regarded as basic employment; for the secondary sector, total employment in the factory sector may be used; and for the tertiary sector, government employment is regarded as basic. The total employment in the factory sector may be regarded as basic (or exogenous) since this is employment in only the larger factories, defined as those employing more than 10 employees if using power and more than 20 if not using power. These cut off points are, in reality, quite low : it would be more correct to use higher cut off points on the argument that it is the larger factories which exhibit economies of scale and are therefore "more exogenous". The use of government employment as exogenous is debatable but the estimations themselves give some information on this issue.

16. Three different measures of urban population are used as the dependent variable in order to investigate the functions of different sizes of cities. First is URBPOP, the total urban population; second is CLASS I which is the population of cities over 100,000 only; and the third is NON-CLASS I which is merely (URBPOP-CLASS I) i.e., the total population of small towns.

1. Koichi Mera : "A Multiple Layer Theory of National Urban System" in H. Swain and R. Mackinnon (eds.). *Issues in the Management of Urban Systems*, Vienna : International Institute of Applied Systems Analysis 1975.

17. As has been argued in the text, it is expected that the size and distribution of urban population in small towns is likely to be determined by agricultural demand (or agricultural employment) while that of large cities is expected to be unconnected with agriculture.

18. Statewise information was used to estimate equation (11) using the different measures of urban population mentioned above. Once again, the different variables were introduced separately first to test for collinearity effects that may arise when they are combined together in one-regression. Two definitions of government employment were utilised—central government employment and State government employment. It was found that, contrary to expectations, State government employment performed better. The results are reported below:-

$$\text{URBPOP} = -409 + 0.12P + 7.50S + 7.78T + 228t \quad (11a)$$

(1.15) (43.3) (3.21) (0.55)

$$R^2 = 0.907$$

$$\text{CLASS I} = -1569 - 0.08P + 5.64S + 6.82T + 217t \quad (11b)$$

(1.43) (1.24) (5.54) (4.79) 0.89

$$R^2 = 0.938$$

$$\text{NON CLASS I} = 1160 + 0.203P + 1.87S + 0.96T + 10.8t \quad (11c)$$

(0.90) (2.73) (1.57) (0.58) (0.04)

$$R^2 = 0.661$$

19. The first point to note is that the coefficient of P is positive as well as significant for small towns (Non-Class I) but not for cities and nor for urban population taken as a whole. In fact, it was found that except for small towns, the coefficient of P was quite unstable and was highly correlated with State Government employment, as well as Central Government employment. This suggests the derived nature of government employment. Further, the use of Central Government employment (for T) added nothing to the level of explanation provided by joint agricultural (P) and factory employment (S). It was also found that with the inclusion of T in (11a), the coefficient of P was quite stable at about 0.4. This means that about 5 agricultural jobs generate about 2 head of urban population: using a participation rate of about 35-36%, this means that it takes about 7 agricultural jobs to generate 1 urban job. The coefficient of S is around 8. Accounting for the correlation with government employment, one can say that every basic manufacturing job induces an increase in urban population of about 8 to 10 or that it induces 3 to 4 other jobs.

20. It is interesting to see that, contrary to expectation, Central Government employment appears to be totally derived: its coefficient was unstable and not statistically significant (and hence not reported here). The coefficient for State Government employment (T) was quite stable and significant even when included with P and S [as reported in equations 11(a) and (b)]. The population multiplier for State Government employment may be as high as that for factory employment that is between 8 and 10. But the level of explanation is not improved on significantly by the addition of government employment. It would then be reasonable to coincide that it is essentially agricultural and factory employment that is basic while government employment is derived from those activities.

21. Equation (11 b) gives the same results for CLASS I cities only, i.e. the determinants of population in cities of over 100,000 population. Even when agricultural employment was used by itself, it was found that its coefficient declined as compared with that for URBPOP (equation 11a.) It was about 0.15. This means that it takes about 6-7 agricultural jobs to induce an increase in large city population of 1 or that it takes about 15-20 agricultural jobs to create demand for 1 job in large cities. Because of correlation with State Government employment in the regressions reported in equation (11 b) the coefficient of P becomes negative and statistically not significant. The Coefficient of S is stable and large as expected: every factory job creates 2 to 3 other jobs in large cities. The coefficient for Central Government employment is not reported here but it was significant at the 5 percent level and of sizeable magnitude, quite similar to that of S. This suggests that Central government jobs are largely located in large cities and they do have a multiplier effect. The coefficient reported for T in equation (11 b) is that for State government employment and is of about the same magnitude as in (11a) for URBPOP. This indicates that the bulk of State government employment is also in Class I cities.

22. Equation (11 c) reports a similar estimate for small and medium towns with population of less than 100,000. The first feature to note is the significant coefficient of male agricultural employment (P) and which was of a stable magnitude over different regressions. About 9 to 10 agricultural jobs give rise to 1 job in a small town. This suggests that in the absence of any factory employment, the level of urbanisation in an exclusively agricultural economy should be in the region of about 10 *per cent*. This is not very far from the lowest levels that are observed internationally as well as in India's most backward regions. It would seem that central government employment is not important in small and medium towns. It had a negative sign which implies that most central government employment goes to large cities and perhaps attracts population out of small and medium towns: this argument cannot be taken too far since the coefficient was not statistically significant. State government employment continues to be significant but is highly correlated with agricultural employment-suggesting that state government employment is essentially servicing agriculture in small and medium towns.

23. What emerges from these results? First, the level of explanation is surprisingly high. About 90 percent of the variance in urban population as well as that of large cities is accounted for by these formulations. The variance of small town population is not as well explained but still quite respectable with R^2 in the region of 0.65. That large cities are not intimately connected with their hinterlands is supported by these results. Factory employment has multipliers of about 3 to 4. Government employment is largely derived from the demands of the primary and secondary sectors: it does not appear to be autonomous or exogenous. In trying to explain government employment, it was regressed against agricultural and manufacturing employment (regressions not reported here). About 90 percent of the variance is explained. About 75 agricultural jobs create 1 central government job while only about 25 jobs create 1 state government job. Similarly, 3 factory jobs create 1 central government job but 2 state government ones. Small towns are more organically connected with agriculture and the employment within them is essentially for the service of agriculture. Government employment has been found to be almost totally derived: it is clearly not autonomous.

Technical Appendix II

Methodology Used for Projection of Urbanisation

Projection of Total Urban Population

1. The projection of total population of a country which has little net immigration or net migration can be done quite systematically with the use of well known demographic methods using key variables such as mortality rates, fertility rates and the age and sex structure expected. The projection of urban population is much more difficult since it depends to a much greater degree on the movement of economic variables which are difficult to predict. The best that can be done therefore is to make projections of plausible ranges of urban growth using available information on past experience and knowledge of urbanisation trends.

2. There are three simple methods of projecting urbanisation:

- (i) Utilising past annual rates of growth of urban population and projecting into the future.
- (ii) Utilising the absolute change in the level of urbanisation in the past; for example, if the level of urbanisation changed from 17 to 20 percent in the past decade, it can be projected to increase by another 3 percent to 23 percent at the end of the next decade.
- (iii) Utilising the annual rate of change in the level of urbanisation in the past.

3. The problem with all these methods is that they assume an indefinite increase in urbanisation which can lead to absurd results. If the rate of urban population growth is higher than total population growth, which it usually is, the use of the first method will soon lead to urban population exceeding the total population. Similar results would be obtained from methods (ii) and (iii). Thus, the method used should utilise information on both urban population and rural population growth rates so that absurd results are not reached.

4. The "U.N. Method" recommended is to use the net difference between the rate of growth in urban population and that in rural population — the Urban Rural Growth differential (URGD) - for projection purposes. The use of this method "has several interesting advantages,....., especially in its range of applicability. In a wide variety of circumstances, comprising virtually all those which will ever occur, the assumption can be made that an URGD observed in the past may also be maintained for an indefinite future period without leading to absurd results. This remains true irrespective of the current level of urbanisation, the rate of growth in total population, or whether rural population is increasing or diminishing".¹

When the percentage level of urbanisation is low, as in India, the rate of urban population growth is much higher than total population growth, while the rural population growth is only slightly lower than total population growth. As the level of urbanisation increases to high levels, the urban population increase is only slightly above the total population increase while the rate of rural population increase is then considerably less. Hence, the use of stable URGD over time is at least consistent with a number of diverse situations.

5. Furthermore, as shown in Technical Appendix I, the level of urbanisation is, in general, found to increase in a logistic fashion. It can be shown that the assumption of a constant increase in URGD is consistent with this logistic pattern.

¹ United Nations *Methods for Projections of Urban and Rural Population*".

Let U_t , R_t and T_t be the urban population, the rural population and total population at time t , and U_0 , R_0 and T_0 the corresponding population at time 0 . Let u and r be the exponential rates of growth of the urban and rural populations.

Then URGD, $d = u - r$

$$U_t = U_0 e^{ut}$$

$$R_t = R_0 e^{rt}$$

and $\frac{U_t}{T_t} =$ level of urbanization

$$\text{Now } \frac{U_t}{R_t} = \frac{U_0 e^{ut}}{R_0 e^{rt}} = \frac{U_0}{R_0} e^{(u-r)t} = \frac{U_0}{R_0} e^{dt}$$

$$\frac{U_t}{T_t} = \frac{U_0 e^{ut}}{U_t + R_t} = \frac{U_0 e^{dt}}{R_0 e^{dt} + R_t}$$

$$\text{Hence } \frac{U_t}{T_t} = \frac{\frac{U_0 e^{dt}}{R_0} R_t}{R_t + \frac{U_0 e^{dt}}{R_0} R_t}$$

$$= \frac{U_0 e^{dt}}{R_0}$$

$$= \frac{1 + \frac{U_0 e^{dt}}{R_0}}{1 + \frac{R_0}{U_0 e^{dt}}}$$

$$= \frac{1 + \frac{U_0 e^{dt}}{R_0}}{1 + \frac{R_0}{U_0} e^{-dt}}$$

6. The level of urbanisation in percentage terms is

$$\text{URB}_t = 100 \frac{U_t}{T_t} = \frac{100}{1 + \frac{R_0}{U_0} e^{-dt}}$$

If it is assumed that the logistic is symmetrical about the 50 percent level, where $U_0 = R_0$, then

$$\frac{R_0}{U_0} = 1$$

$$\text{and } \text{URB}_t = \frac{100}{1 + e^{-dt}}$$

Hence URB_t is calibrated for different values of d_t , assuming that this curve is symmetrical about

$$\frac{U_0}{T_0} = 0.5$$

i.e. $URB_0 = 50\%$. For urbanisation levels of less than 50%, dt is negative while it is positive for urbanisation levels of over 50%. The level of urbanisation URB_1 in any initial year can be located in this table along with the implied dt : URB_2 is then found by adding the dt assumed for the next period (e.g. if $URGD=2.0$ and $t=10$ years, $dt=20$). Note that a flexible $URGD$ can be used for different time periods.

7. This method is merely standardising the logistic curve, calibrating it on the assumption that it is symmetrical around the 50 percent urbanisation level and then reading off the relevant values along the curve.

8. The use of this $URGD$ method therefore has good theoretical grounding in terms of the urbanisation pattern observed and substantiated.

9. The main issue that remains, however, is that of the choice of $URGD$. As shown in Chapter II, $URGD$ has not been stable across decades in India. Our preferred urban variant (Chapter III) is one where we have assumed $URGD$ to be declining gradually over time from now until the end of the century. This has been done on considerations of what are regarded as "reasonable" rates of rural population growth towards the end of the period.

10. The rate of growth of rural population has exhibited greater stability than that of urban population since 1951 (1.89, 2.0 and 1.75 percent per year in the respective decades). Given its large weight, it has naturally been near the total population growth rate but has shown a large decline in the last decade. We can expect such a decline to continue but it is felt that it is unlikely to decline to rates of growth much lower than 1.0 percent a year towards the end of the century—keeping in mind the expected pattern of economic growth in the country and the different regional patterns. The assumption of $URGD$ declining from 2.2 percent a year in 1981-86 to 2.0 percent in 1986-91, 1.8 percent in 1991-96 and 1.6 percent in 1996-2001, is therefore a judgemental one attempting to balance consideration of total population growth, rural population growth, and pattern of economic growth expected.

The Projection of the Distribution of Urban Population by City Size

11. An extension of the projection method outlined above is used to project the population in each size class of cities and towns. The essential idea is that the proportion of population in each size class can also be expected to follow a logistic pattern—including the population added by new towns and cities being added to the size class in each census. The procedure used is as follows:

(i) *Metro Cities*

12. Let M_{71} be the total population in the 9 metropolitan cities in 1971 and M_{81} that in the 12 Metropolitan cities in 1981. Let total (urban and rural) population be T_{71} and T_{81} . Now

$$\% M_{71} = \frac{M_{71}}{T_{71}} \times 100.$$

$$\text{and } \% M_{81} = \frac{M_{81}}{T_{81}} \times 100.$$

These percentages of metropolitan population can be read off the logistic scale in the same way as the percentage total urban population. If it is assumed that the pattern of growth in the future is similar to the past on the logistic scale, the projected proportion $\% M_{91}$ can be read off the logistic scale by assuming the same dt in the next decade. Another way of looking at this is that we are merely defining urban population as metropolitan population and "d" now is the difference between the rate of growth of metropolitan population and that of the remaining population.

(ii) *Class I Cities (100,000 to 1 million)*

13. The next step is to subtract the M_{71} and M_{81} from T_{71} and T_{81} to obtain the remaining population in each year. Now the population of Class I cities (excluding million plus) is taken

as a percentage of this remaining population for each year. These percentages are read off the logistic scale as before and projected similarly. Again, the idea is that we are regarding the population of this Class as the total urban population and projecting it according to a logistic pattern of growth.

(iii) *Class II and below*

14. The same procedure is repeated excluding the already projected population each time.

15. The population in each size class is thus obtained and the remainder is rural population. This is called the "Downward Procedure". The "Upward Procedure" is similar except that it starts from the rural population; takes the next (smallest) size class and so on until it reaches metropolitan cities, excluding each projected group as we go "upwards".

16. Both procedures have been utilised in our projections. As a test of the procedure, 1971 and 1981 size class populations were predicted using the 1951-61 data for 1971 and the 1961-71 data for 1981. The predicted magnitudes were remarkably similar to the actuals as shown in Table 3.4. These procedures are therefore regarded as quite robust and have been used to project the size class population estimates. It may be noted that this procedure, in principle, accounts for the changing classification of towns, in terms of size, between censuses. Its theoretical basis lies in assuming that the proportion of urban population above any cut off point moves over time on a logistic scale.

Projection of Number of Towns in Each Size Class

17. A systematic statistical examination of the trend in city size distribution may be done by fitting a known distribution to the population distribution of cities in order to estimate the parameters of such a distribution. The distribution that is usually used to do this is the Pareto distribution where $R = aP_R^b$ where R is the rank of the urban area (by population size) with population PR; a and b are constants to be estimated from the data. The larger is b, the more even is the distribution of city sizes. As b tends to zero, the entire urban population is concentrated in one city. If $b=1$, the distribution is known by the familiar Rank Size rule. The population of a town with the Rth ranks is then a/R or $1/R$ of the population a of the largest city.

18. Once the values of a and b are determined the whole distribution of towns and cities can be generated from the Pareto distribution. a and b were estimated for the distribution of Class I and Class II cities in 1981 :

$$\ln a = 18.27$$

$$\text{and } b = 1.12$$

For projection purposes, b may be assumed to be approximately constant over time (as it has been for India) but 'a' may be expected to increase. It is therefore necessary to estimate a for 1991.

19. The information utilised here is the projections done for individual metropolitan cities in Tables 3.5 (a) and 3.5 (b). At the upper end of the range, we are confident that there will be 21 to 23 cities with a million population and over in 1991. Assuming $b = 1.12$, with $R = 21$ or 23 , for $P_t = 1$ million, a can be estimated. This is done for the different projections A, B and C in Table, 3.5 (b). The results are :

$$\ln a = 18.64 \quad \text{Projection A}$$

$$\ln a = 18.59 \quad \text{Projection B}$$

$$\ln a = 18.53 \quad \text{Projection C}$$

The number of towns in Class I (excluding 1 million \times) and lower classes can then be worked out by finding the rank R of the town at the border line of each class. It turns out that by this procedure the number of towns in size classes III, IV and V is much lower than the actual. If the estimation of 'b' is done by using all the towns in the distribution b would be greater than 1.12 estimated by using only towns in Class II and above.

20. Hence the projection of towns in size Classes III and IV is done by using a simpler technique ; the towns which will be in size classes III and IV (i.e. between 10,000 and 50,000 population) in 1991 already exist. There would be very few newly classified towns in these categories. We can assume that the average growth of towns in each size class is about 45 per cent, the overall growth in urban population in the decade. Then all towns above 14,000 in 1981 can be expected to cross 20,000 by 1991 and those between 7,000 and 10,000 to be over 10,000 by that year. Given the large number of towns in these categories these are quite robust estimates, since some of the slow growers would be compensated by fast growers.

21. We are not able to predict the number of towns in size classes V and VI since many of the towns in these categories would be towns newly classified as such.



TASK FORCES ON HOUSING AND URBAN DEVELOPMENT

II

FINANCING OF URBAN DEVELOPMENT

PLANNING COMMISSION
GOVERNMENT OF INDIA
NEW DELHI

DECEMBER, 1983



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ON
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DECEMBER, 1983

CONTENTS

	PAGE
PREFACE	(v)
SUMMARY OF FINDINGS AND RECOMMENDATIONS	(xi)
I. EXISTING STATE OF URBAN FINANCES	
Introduction	1
Patterns and Trends in Municipal Finance	2
Existing Methods of Devolution to Local Bodies	5
State Control of Municipal Finance	8
II. PROJECTIONS OF INVESTMENT REQUIREMENTS IN URBAN INFRASTRUCTURE	
Introduction	18
Methods of Estimating Investment Requirements	18
Application of Method A	19
A Cross-check with Method B	24
Possibilities for Reducing Investment Requirement	25
Conclusions and Recommendations	26
Appendix A 2.1	29
Appendix A 2.2	45
Appendix A 2.3	49
III. REFORM OF MUNICIPAL TAXES AND RENT CONTROL	
Introduction	53
Octroi	53
The Property Tax	55
Modifications in Rent Control Legislation	58
Devolution of Taxes to Local Bodies	58
IV. FINANCING OF URBAN INFRASTRUCTURE	
Sources of Finance	69
The Scope for User Charges	70
Reform of Municipal Budgetary Procedures	71

V. INSTITUTIONAL DEVELOPMENT : THE NEED FOR AN URBAN FINANCING INSTITUTION

Introduction	73
The Need for an Apex Urban Financing Institution	74
A Proposal for an Urban Financing Institution	78
State Level Urban Financing Institutions	82
Appendix	89

LIST OF TABLES

<i>No.</i>	<i>Title</i>	<i>Page</i>
1.1	Revenue Structure of Municipal Authorities, 1960-61 and 1976-77	9
1.2	Tax Revenue of Local Bodies	10
1.3	Revenue Structure of Municipal Authorities in Larger States, 1960-61 and 1975-76	11
1.4	Revenue Structure of Local Bodies by Size-Class 1974-75 and 1979-80	12
1.5	Patterns of Ordinary Expenditure of Municipal Authorities, 1960-61 and 1976-77	12
1.6(a)	Pattern of Ordinary Expenditure of Municipal Authorities in Larger States, 1960-61	13
1.6(b)	Pattern of Ordinary Expenditure of Sample Municipal Authorities in Larger States, 1975-76	14
1.7	Extent of State Control over Municipal Expenditure	15
A 1.1	State of Municipal Finances in India	16
A 1.2	State-wise Per Capita Incomes and Expenditures (1974-75 and 1979-80)	17
2.1	Estimates of Per Capita Investment Cost Norms	20
2.2	Investment Requirements in Urban Infrastructure, 1981—2001 Projections	22
2.3	Investment Requirements in Urban Infrastructure by Class-size of Towns (1986—91), Rough Projections	23
2.4	State-wise Cost of Land Development	24
2.5	Per Capita Investment Cost of Urban Development—A Comparison of Methods A & B	25
2.6	Investment Requirements in Urban Infrastructure Summary 1980.	26
A 2.1	Unit (Per Capita) Cost for Urban Water Supply : Summary Table	31
A 2.2	Unit (Per Capita) Cost for Urban Sanitation : Summary Table	32
A 2.3	State-wise and City Class Size-wise Per Capita Road Length	33
A 2.4	Sample State Table for Unit (per capita) costs for Urban Water Supply and Sanitation (Maharashtra)	34
A 2.5	State-wise and City Class Size-wise Proportion of Population not covered by water Supply	35

<i>No.</i>	<i>Title</i>	<i>Page</i>
A 2.6	State-wise and City Class Size-wise Proportion of Population not covered by Sanitation	36
A 2.7	State-wise and City Class Size-Wise Proportion of Urban Roads Not Metalled	37
A 2.8	Per Capita Costs of Water Supply among the Different Towns/Cities	38
A 2.9	Per Capita Investment Costs—Drainage	40
A 2.10	Per Capita Investment Costs—Solid Waste Disposal	41
A 2.11	Per Capita Investment Costs—Streetlighting	42
A 2.12	Asset Life and Depreciation of Urban Infrastructure	42
A 2.13	Average Land Development and Acquisition Costs for Residential Schemes in Small and Medium Towns	43
A 2.14	Average Land Development Cost from HUDCO Residential Schemes	44
A 2.15	Population Projections (1981—2001)	51
A 2.16	Distribution of Urban Population over various Class Sizes (1971—2001)	52
3.1	Structure of Revenue Receipts—Sample Municipal Bodies	59
3.2	Composition of Revenue of Municipal Corporations (1978-79)	60
3.3	Percentage Share of each Tax in Total Tax Revenue (1960-61)	64
3.4	Percentage Share of Each Tax in Total Tax Revenue (1978-79)	65
3.5	Rates of Growth of Different Components of Tax Revenue of Corporations, 1960-61 to 1978-79	66
A 5.1	A List of Municipal Development Financial Institutions	83
A 5.2	Loans Advanced for Infrastructure by the Life Insurance Corporation	84
5.1	Over-all Budgetary Position of State Governments	85
5.2	Borrowings by State Governments and Their Institutions	87
5.3	Sources and uses of Funds for the proposed Urban Financing Institution	88
A. 2	Density Ranges and Cost of Land Development	97
A. 3	Development Cost Per Hectare by City Size	97
A. 4	Income Category-wise Cost Per Hectare and Per Capita Cost (All India)	98
A. 5	Percentage Distribution of Different Components of Land Development Costs	98

P R E F A C E

With the acceleration in the rate of urbanisation in the country there will be an increasing requirement for investment in urban infrastructure and other facilities. The financing of these investments will pose serious problems unless measures are taken such that there is a greater flow of resources from different sources for the purpose of urban development.

2. In recognition of these problems a special *ad-hoc* meeting was called by Dr. Manmohan Singh, then Member-Secretary, Planning Commission on June 25, 1982, in order to discuss a background paper "The Strategy for Housing and Urban Development": "Some New Perspectives" which had been prepared in the Planning Commission. The meeting was well attended by administrators and academics concerned with urban development from different parts of the country¹. The main recommendation resulting from the meeting was to form Task Forces to study different aspects of housing and urban development with a medium-term, 15-year perspective. The following Task Forces were constituted on January 25, 1983, in pursuance of that recommendation:

- (i) Planning of Urban Development
Chairman, Prof. Asok Mitra
- (ii) Financing of Urban Development
Chairman, Prof. Raja Chelliah
- (iii) Management of Urban Development
Chairman, Shri K. C. Sivaramakrishnan
- (iv) Shelter for the Urban Poor and Slum Improvement
Chairman, Shri L. M. Menezes

Member-Secretary of All Task Forces : Dr. Rakesh Mohan,
Senior Consultant, Planning Commission

3. The notification announcing the Task Forces is attached as *Appendix P.1*, along with the composition and terms of reference.

4. It is with great grief that we record the tragic and untimely death of Shri M.G. Kutty, member of the Task Force and Chief Executive Officer of the Calcutta Metropolitan Development Authority. Shri Kutty had worked on problems of urban development with distinction over a period of nearly two decades. His dedication to work and specially toward the betterment of Calcutta was truly exemplary. He had taken great interest in the work of the Task Force and, despite great preoccupation with his day-to-day work in the C.M.D.A., he was able to contribute two background papers, which are listed in *Appendix P. 3* along with the other background papers prepared for the Task Force. The loss of Shri Kutty will be hard to fill.

5. The term of the Task Force was originally fixed upto June 15, 1983 but was extended upto September 30, 1983.

6. The work of the Task Force was inaugurated on February 14, 1983 by Prof. A.M. Khusro, Member, Planning Commission, responsible for the area of Housing and Urban Development. The Task Force made marginal revisions to its terms of reference and the final terms are attached as *Appendix P.2*. The Task Force held 4 additional meetings on April 19, July 3, August 11 and 12 and September 19, 1983. The meetings on August 11 and 12 were held in Bombay and were hosted by the Housing Development and Finance Corporation.

¹The meeting was chaired by Professor M. G. K. Menon, Member, Planning Commission. Further details on the meeting are provided in the Report of the Task Force on "Planning of Urban Development".

7. At the start of the work, the Task Force decided to ask the different members to prepare background papers on specific term of reference. The papers received were issued as "Urban Development Task Force Papers" and are listed in Appendix P.3.

8. Papers F.6 and F.7 listed in Appendix P.3 were prepared by the All India Housing Development Association (AIHDA) on a research grant from the Ministry of Works and Housing. The Task Force is grateful to the Ministry for processing the grant so expeditiously and to the AIHDA for accomplishing the work within the stipulated time.

9. All members of the Task Force have contributed generously of their time in the work of the Task Force. At the outset, the Task Force would like to express its gratitude to Professor A.M. Khusro, Member, Planning Commission, for having taken a very keen interest in the work of the Task Force. Professor Khusro found time from his heavy commitments to attend some of the meetings. The Task Force would also like to record its appreciation of the interest shown by Dr. Manmohan Singh, Governor, Reserve Bank of India, in its work and for having arranged a lunch and meeting with senior officers of the R.B.I. on August 13, 1983 for discussing the proposal for the Apex Urban Financing Institution outlined in Chapter V of this Report. The Task Force is also grateful to Shri Deepak Parekh, Shri Nasser Munjee and other officers of the Housing Development and Finance Corporation for having arranged the August 12 and 13 meetings in Bombay and for their hospitality. All the meetings in New Delhi were held at the National Institute of Public Finance and Policy and thanks are due to the Chairman, Prof. Raja Chelliah for the hospitality offered.

10. A considerable amount of background work went into the estimates of urban infrastructure requirements given in Chapter III. Shri M.M. Ansari, Consultant, Planning Commission assisted in this work very ably, which we deeply appreciate. The Task Force would like to thank the Town and Country Planning Organisation (TCPO), the Central Public Health, Engineering and Environmental Organisation (CPHEEO), the Delhi Office of the World Bank, the Calcutta Metropolitan Development Authority (CMDA), Bombay Metropolitan Regional Development Authority (BMRDA), the Madras Metropolitan Development Authority (MMDA), and the Housing and Urban Development Corporation (HUDCO), for making available to the Task Force unpublished data on the costs of various types of urban infrastructure. A special word of appreciation is due to Shri Venugopalan and Shri V.B. Ramprasad of the CPHEEO, Shri H.U. Bijlani, Shri Mulkh Raj and Shri M.N. Joglekar of HUDCO, Shri Meshram of the TCPO, the late Shri M.G. Kutty and Shri Tapan Chaudhry of CMDA and Shri P.K. Chatterjee, UNDP Adviser, Sanitation Decade, for their cooperation in providing these data which were not always easy to assemble.

11. The Task Force is grateful to Shri L.M. Menezes, Joint Secretary, Ministry of Works and Housing and Shri E.F.N. Ribeiro, Chief Planner, Town and Country Planning Organisation (TCPO) for providing the core secretariat staff. Shri M.B. Mathur and Shri V.P. Upadhyaye who were loaned by the TCPO for this work have helped a great deal in expediting the work of the Task Force. For stenographic help we are grateful to Shri B.K. Khera, P.A. (of the Planning Commission) and Shri O.P. Madan (of the TCPO) who have handled the work of the Task Force throughout its duration. Support has also been provided by Dr. Jagjit Singh, P.A., Shri B.C. Sharma, P.A. and Shri M.L. Sharma, P.A. in the Planning Commission. Shri Sethia and Shri Krishan Gopal and Shri Hari Singh Yadav have also assisted the secretariat. Above all, the Chairman and the members of the Task Force would like to place on record their sincere appreciation of the tremendous amount of background work done by the Member-Secretary, Dr. Rakesh Mohan, whose help and guidance were crucial for the success of its work.

No./PC/H/1/9/82
Government of India
Planning Commission
(Housing Urban, development & Water Supply Division)

New Delhi
January 25, 1983.

In order to examine issues related to the Strategy for Housing and Urban Development, the Planning Commission has decided to appoint four Task Forces so that policies and programmes in this field may be formulated with a proper perspective in the Seventh Five Year Plan.

2. The Task Forces are as follows.

- A. Task Force on Planning of Urban Development.
- B. Task Force on Financing of Urban Development.
- C. Task Force on Management of Urban Development.
- D. Task Force on Shelter for the Urban Poor and Slum Improvement.

The composition and terms of reference for each Task Force are given in the Annexures 'A' to 'D'.

3. Non-official members of the Task Forces shall be entitled to TA/DA as permissible to Grade-I officers of the Government of India and will be paid by the Planning Commission. TA/DA to official members will be paid by their parent departments.

4. The Task Forces are requested to furnish their final reports to the Planning Commission by June 15, 1983.

5. All correspondence to these Task Forces may be addressed to Dr. Rakesh Mohan, Consultant, Planning Commission, New Delhi.

Sd/-

(K. C. Agarwal)
Director (Administration)

1. Chairmen of Task Forces
(by name)
2. Members of the Task Forces
(by name)

Copy for information to :

1. PS to Dy. Chairman.
2. PS to Member (F)/(H)/(M)/(K).
3. PS to Secretary.
4. All Heads of Divisions.
5. Admn.-I.
6. Accounts-I.
7. General Branches I & II.

Sd/-

(K. C. Agarwal)
Director (Administration)

(vii)

(viii)

No. PC/H/1/9/82

Government of India

Planning Commission

(Housing, U.D. & Water Supply Division)

Yojana Bhavan

New Delhi

2 July, 1983.

In pursuance of Planning Commission Office Memorandum of even number dated 25-1-1983 regarding the Task Forces on (a) Planning of Urban Development, (b) Financing of Urban Development, (c) Management of Urban Development and (d) Shelter for the Urban Poor and Slum Improvement, it has been decided to extend the term of these Task Forces till the 30th September, 1983.

Sd/-

(K. C. Agarwal)
Director (Administration)

1. Chairmen of Task Forces
(by name)
2. Members of the Task Forces
(by name)

Copy for information to :

1. PS to Dy. Chairman.
2. PS to Member (F)/(H)/(M)/(K).
3. PS to Secretary.
4. All Heads of Divisions.
5. Admn.-I.
6. Accounts-I.
7. General Branches I & II.

Sd/-

(K.C. Agarwal)
Director (Administration)

Financing of Urban Development

With the expectation of continuing urbanization in the foreseeable future in India there will be an increasing requirement for investment in urban infrastructure and other facilities. The financing of these investments are likely to pose serious problems in light of other pressing demands for available resources. The task force is therefore expected to examine the whole issue of financing of urban development with a time perspective of the next 15 years.

The terms of reference for the task force are—

- A. Examine the existing system of financing of investments as well as maintenance of social overhead infrastructure in urban areas. Specifically,
1. To assess the adequacy of urban local finances and the existing methods of devolution of state and central funds to urban areas and to suggest reforms.
 2. To examine particularly the key local taxes : octroi and property taxes and frame guidelines for their improvement.
 3. To examine laws or legislative provisions which affect the financing of urban development and to make appropriate recommendations.
- B. In the light of expected urbanization and income increases to make projections of the requirement for investment in urban infrastructure investments over the next 15 years. Specifically,
1. To suggest institutional arrangements such that these funds can be generated in a way that urban areas are largely self-financing.
 2. To suggest specific innovative methods by which there can be greater generation of funds for these investments.
 3. To consider the advisability of establishing an Apex Urban Development Financing Agency for channelising funds for urban infrastructure investments.

.... The members of this Task Force will be—

- | | | |
|----------------------------|---|-------------------|
| (1) Prof. Raja K. Chelliah | — Member, Economic Administration Reforms Commission, New Delhi. | —Chairman |
| (2) Shri V. Ramachandran | — Commissioner for Economic Development, Govt. of Kerala, Trivandrum. | —Member |
| (3) Prof. Abhijit Datta | — Professor, Indian Institute of Public Administration, New Delhi. | —Member |
| (4) Shri M. G. Kutty | — Chief Executive Officer, Calcutta Metropolitan Development Authority, Calcutta. | —Member |
| (5) Dr. Shankar Acharya | — National Institute of Public Finance & Policy, New Delhi. | —Member |
| (6) Mr. Deepak Parekh | — Dy. General Manager, Housing Development and Finance Corporation, Bombay. | —Member |
| (7) Dr. Rakesh Mohan | — Senior Consultant, Planning Commission. | —Member-Secretary |

LIST OF MATERIALS SUBMITTED TO THE TASK FORCE ON
"FINANCING OF URBAN DEVELOPMENT"

- F.1 ABHIJIT DATTA
Financing for Urban Plan Implementation : The Indian Experience.
- F.2 M. G. KUTTY
The scope of urban user charges in the Financing of Urban Development.
- F.3 M. G. KUTTY
Interface of the Revenue and Capital Budgets—Some Suggestions.
- F.4 AMITABH KUNDU
A Settlement Policy in the context of Regional Economic Development.
- F.5 ABHIJIT DATTA
The state of Local Finances : Adequacy and Methods of Devolution.
- F.6 A.I.H.D.A.
Norms of Land Development Costs.
- F.7 A.I.H.D.A.
Analysis of Land Development cost in HUDCO Projects.
- F.8 DEEPAK PAREKH
Urban Finances : A need for a new Institution Approach.
- F.9 RAKESH MOHAN
M. ANSARI
A Note on Investment Requirements for Urban Infrastructure—Rough Estimates for 1981—2001

SUMMARY OF FINDINGS AND RECOMMENDATIONS

I. EXISTING STATE OF URBAN FINANCING

1. The acceleration in the rate of urbanisation has heightened attention to the inadequacies in the existing urban infrastructure in providing essential urban services. Since the level of urbanisation will continue to increase in India in the foreseeable future, the financial requirements of urban development will also continue to increase indefinitely. It is therefore necessary to systematise the methods of financing urban development.

2. This Task Force is mainly concerned with the core elements of urban infrastructure traditionally in the domain of urban local authorities. These include the provision of water supply, sewerage, drainage and sanitation, local roads, street-lighting, solid waste disposal, area development and urban renewal. Although urban transport is an essential component of necessary urban services, it has not been considered in this report because of the highly technical nature of urban transport problems. It was felt that an entirely separate and technical group would be needed to assess the magnitude of the urban transport requirements. Other urban services like education and health have also not been evaluated in this report.

3. Reliable financial statistics of municipal finance are as yet unavailable. It is therefore difficult to assess accurately the share of the municipal sectors in the total public sector of the country. Some estimates are, however, available to indicate the order of magnitude of municipal revenues and expenditure. Total expenditure by municipal bodies of all kinds was in the region of *Rs. 800 crores* in 1980-81. This constitutes about 4.5 percent of total governmental expenditure by Central, State and Local Governments combined.

4. There is ample evidence that this share has declined substantially over the last two decades from about 8 percent in 1960-61. This indicates the relative decline in activities of local governments as compared with State and Central Governments. The activities of municipal bodies have not been expanding as fast as that of the higher level governments despite the faster rate of urbanisation that has been experienced in the past decade.

5. Notwithstanding the above remarks, the overall trend in the municipal budgetary position has not been as bad as is generally believed: The annual growth in municipal revenue has been about 15 percent per year over the past decade as compared with about 17.5 percent per year for the State and Central Governments (in current prices). The growth rate of municipal taxes is particularly low in the States where octroi is not levied. The revenues from the property tax have not been as buoyant as might have been expected in a situation of rising urbanisation.

6. There are definite indications of a weakening of the resource structure of municipal bodies over the past two decades. For the larger cities with municipal corporations, the share of grants-in-aid and contributions from the State Governments has increased from about 11 to just under 14 percent of total revenue sources; while for other municipalities this share has increased from 15 to about 22 percent. The share of tax revenue has remained the same for corporations at about 72 percent while it has declined from 61 percent to 58 percent for other municipalities. These trends point to a progressive fiscal weakening of local bodies along with increasing dependence on devolution from State Governments.

7. It is striking that the growth in municipal expenditure has been slower than in municipal revenues resulting in unspent surpluses: this is more pronounced in corporations than in other municipalities. But this result is misleading because of two reasons. First, local bodies have to statutorily balance their budgets: no deficit can therefore be shown at end of the year accounts. Local bodies therefore have to forego performing some of the functions expected of them in order to avoid a deficit. Moreover, this is an indication of the weakness of their implementation machinery, so that many municipal tasks simply remain undone. Second, the apparently happy position of surpluses emerging at the all India level is also because of surpluses existing in a handful of municipal corporations.

8. The pattern of expenditure is as follows. An average of about 12 percent is spent on general administration and tax collection, 20 percent on public health measures, 14 percent on water supply, 7 percent on public safety, 10 percent on education, 15 percent on public works, with the remaining 20 percent on miscellaneous items.

9. Within this overall pattern it is quite noticeable that on an average municipalities in smaller towns of less than 50,000 population spent about a quarter of their total expenditure on their establishment, some as much as 40 percent, as compared with 7 to 12 percent for the larger cities. Among the major functions, there appears to have been a decline in the proportion of expenditure spent on water supply. This reflects the gradual assumption of the responsibility for the provision of water supply by State Level agencies.

10. It is difficult to make an assessment of the adequacy of available local finances based on an examination of the accounts of local bodies because of the aforesaid necessity of balancing budgets. The total availability of about Rs. 800 crores in 1979-80 must be assessed in relation to the needs of local bodies in terms of their obligatory functions. This necessitates assumptions of physical norms for services which the Task Force was reluctant to do. Nevertheless, some assessment is offered later in the report.

11. Municipal finances in India operate on the presumption of fiscal autonomy; however the absence of any systematic method of transfer of States' resources to support municipal activities, in coupled with the requirement of balancing the municipal budgets through known sources of municipal revenues to finance the committed items of municipal functions, municipal budgets display a low level of fiscal equilibrium.

12. In practice, the fiscal arrangements have attempted to combine two approaches : plan funds for urban development are spent through a variety of state agencies and, when the assets are created, these are transferred to the municipal authorities for maintenance. The consequential non-plan assistance is neither envisaged for the state agencies, nor assured to the municipal authorities. Nor are these authorities required nor always free to levy user charges. This results in a maintenance gap for urban public services.

13. The separation of developmental and maintenance roles for urban public services also has the effect of determination of the plan size for urban development without any reference to the size of the committed budget for urban public services so that at each successive stages of the plan expenditure, the backlog deficit for its maintenance goes on increasing. Due to institutional separation for urban development and maintenance the linkage between the plan and non-plan components of urban development gets blurred and hidden.

14. Due to the existing method of state plan financing, while funds are provided from the State Plan resources, to the extent that they are made available for urban development, there is no systematic method of meeting necessary non-plan expenditure of the municipal authorities. Consequently, their budgets are balanced either, (a) by not accepting the liability of maintenance of assets created by state agencies ; or (b) by not implementing their responsibility even when this liability is accepted; or (c) by curtailing their non-plan services or regulatory functions ; or (d) by showing the actual budgetary deficit and bargaining for necessary state assistance to meet it. Actual experience suggests that the municipal authorities have, in fact, resorted to all the four methods in varying degrees.

15. If the logic of municipal fiscal autonomy is extended to its ultimate conclusion, the separation of its powers to raise resources should imply that its own resources are adequate to meet most of its expenditure commitments, the balancing item being devolutions from state funds.

16. The separation of responsibility for urban development (state) and maintenance (local bodies) is the first problem to be reckoned with. The second problem is to harmonise in a fiscal sense the municipal budgets with the plan and non-plan budgets of the states. The solution to the first problem lies in regarding the state agencies as undertaking planning and construction activities for the municipalities and integrating the municipal and state planning process for allocating plan funds for urban development. The solution to the second problem lies in undertaking exercises to determine the pattern of systematic and predictable devolution of state funds for local bodies, along with greater resource raising by the local bodies themselves.

17. The existing system of devolution of State funds to local bodies can best be described as *ad-hoc* and unpredictable depending on the vagaries of States' budgetary positions. Some States *have* attempted systematic devolution through the appointment of Municipal Finance Commissions, but this itself has been sporadic and limited to only a few states. The principle of devolution has essentially been the "gap filling" approach which the Task Force finds to be unsatisfactory. Furthermore, there is no relationship with the capital funds invested.

18. As for the devolution of plan funds to local bodies, there is precious little that is devolved. The tendency of State Governments has been to execute most capital works through their own agencies. There has been a gradual usurpation of local functions by State Governments. Local bodies at present also have no access to capital markets, this function being reserved for State Governments and that too under overall limitations of plan finance under Reserve Bank guidelines. Local bodies do, however, get capital funds from the Life Insurance Corporations and General Insurance Corporations for infrastructure projects.

II. EVALUATION OF INFRASTRUCTURE REQUIREMENTS

19. The Task Force has estimated the investment requirement for urban infrastructure until the year 2001. The estimates include investment required for the provision of water supply, sewerage, and/or sanitation, solid waste disposal, storm water drainage, roads, street lighting and land preparation. No estimates were made for other urban requirements such as local transportation, telecommunications, health and education facilities.

20. The per capita cost of providing this urban infrastructure is estimated to vary from about Rs. 750 to Rs. 1500 (at 1980 prices) depending on the technology used and service levels provided. Rs. 750 suffices to provide the absolutely basic facilities. Since the minimum is not uniformly applicable to all situations in different towns and cities, the effective average minimum requirement for investment is probably in between these two figures. The mean may be taken as a realistic indication of requirements.

21. On this basis and taking account of the depreciation of existing and new infrastructure, the backlog of existing population not served (about 25 percent) and the expected increment to urban population, it is estimated that the level of investment in the period 1986—91 would be in the range of Rs. 6000 crores to Rs. 10,000 crores. Rs. 6000 crores is arrived at on the basis of the absolute minimum which is not likely to be feasible as mentioned above. Hence, the Task Force considers the overall allocation from all sources of about Rs. 8000 crores (at 1980 prices) to be the realistic and necessary urban infrastructure requirements in the Seventh Plan period.

22. It may be noted that the estimated requirement for the period 1981—86 ranges from about Rs. 4400 to Rs. 7000 crores—with the mean being about Rs. 5700 crores. In comparison, the actual investments in this period are likely to be in the region of Rs. 3500 crores which is less than the absolute minimum.

23. In view of these estimates, the Task Force feels that although a significant step-up in investment in urban infrastructure is clearly indicated, the magnitude of the step-up is not astronomical as is generally believed and is well within the means of the country if these investments are made judiciously and in places of need. The Task Force emphasises the use of low cost technologies, particularly in the field of sanitation (pit-latrines in preference to water-borne sewerage), water supply and garbage disposal.

24. Although these estimates are necessarily crude and can be improved upon, they are reasonable indicators of the magnitude required. They are based on actual costs of recently executed projects on which information was available from different parts of the country. The Task Force considers it necessary that there should be a continuing programme of research, monitoring and evaluation of cost norms and standards in the provision of urban infrastructure. This would help in a realistic projection of planning requirements in the future.

25. Some key results arising from the estimation of infrastructure requirements by the Task Force should be noted :

(i) The analysis of different projects around the country for different kinds of infrastructure of all types yielded no obvious relationship between the cost of urban infrastructure investment and city size. The costs of new developments vary far more due to other reasons,

(xiv)

(ii) Similarly, there is little evidence of large differences between the acquisition cost of undeveloped land on the fringe of larger cities and that on the fringe of smaller towns. The value of undeveloped agricultural land is found to be within a small range all over the country.

(iii) Considerable economies can be made in total infrastructure cost by the use of economic and innovative layouts in new residential developments.

(iv) Substantial savings can be realised if sewerage systems are avoided in favour of low cost sanitation in all except the heavily populated areas.

(v) With the continuing rise in the level of urbanisation and hence investments in urban infrastructure the replacement cost of the expanding stock of capital will assume increasing importance as compared with the needs of capital for new investment requirements.

26 On the basis of the methodology used for the valuation of infrastructure requirements, the total replacement value of existing urban infrastructure is estimated to be in the region of Rs. 13,000 crores in 1981. This gives one benchmark for the assessment of the adequacy of the resources of local bodies. At current average maintenance costs of 10 percent of replacement value, the maintenance liability of existing urban infrastructure should be in the region of Rs. 1300 crores, as compared with the total resources of local bodies at Rs. 800 crores which are not all devoted to maintenance.

III. REVENUE INCOME AND EXPENDITURE

27. On the basis of assessments of the existing state of finances of local bodies and the infrastructure requirements, a doubling of present municipal resources would approach the satisfaction of requirements. This is clearly not a difficult magnitude of resources to be raised since this would merely restore the share of municipal resources to about 8% of total public sector resources in the country.

The Property Tax

28. The collection of property tax has suffered from innumerable problems. Even without revision of assessment procedure, periodic re-evaluation, etc., the collection of existing demand would substantially increase the yield of the property tax. The Task Force therefore recommends that as a measure of urgency and as a short term remedy, immediate steps should be taken for the tightening up of collections.

29. One of the main hurdles to increasing the revenue from property taxation undoubtedly lies in the existing rent control restrictions which freeze the process of property valuation for taxation in terms of annual rental value. (The Task Force endorses the approach of the Economic Administrative Reforms Commission for the phased amendment of rent control legislation in all States of the country). The guidelines for amendment of rent control may be as follows :

30. In the case of all new buildings, the rent should be allowed to be determined by the market for the first five years. The rent reported for the fifth year will be standard or controlled rent for the sixth year. Subsequently the rent should be revised every three years in accordance with Central Government DA Formula or by a given percentage of the increase in the consumer price index (CPI).

31. As regards old properties, to begin with, the standard rent fixed in the past should be increased by 50 percent of the percentage increase in CPI between the year of fixation of rent and the present time. After that the rent will be increased every three years—as in the case of new buildings coming up after the rent control legislation is changed.

32. Non-residential properties should be freed of rent control altogether.

33. If rent control legislation is changed as suggested above, the base of the property tax will expand considerably. The property tax can then be expected to be far more buoyant than at present.

34. Once steps are taken to revise the controlled rent upwards periodically, there would be an automatic increase in property tax revenue in respect of old or existing residential properties without the municipality having to undertake any work of revaluation of properties (i.e. redetermination of annual

values). As regards new properties, the base would keep increasing, because the market rent would be allowed to prevail during the first five-year period after construction. Problems of valuation would still remain in respect of all properties not subject to rent control. A satisfactory solution to these problems is the key to the successful administration of the property tax. As of now, the staff of municipal government engaged in the administration of the property tax are untrained and the work of reassessment or even of original assessment is not done on any systematic basis. The administration of property tax would have to be completely revamped. The staff should be better equipped, better qualified, better trained and better paid. The Task Force recommends that State Level Central Valuation Boards could be established to evolve procedures for property tax valuation and for developing norms, which may be applied to different properties. The staff of the Central Valuation Board would not themselves undertake the assessment work but would train the assessors and also undertake snap-checks of assessment carried out in different localities. The Central Valuation Boards would also develop an information system for storage and retrieval of property tax data.

Octroi

35. The basic question regarding octroi is its abolition. It cannot form part of a modern system of taxation for well known reasons. It is collected at an inconvenient point ; it cannot be easily enforced ; it holds up traffic and it leads to corruption. It falls on inputs and for this reason accentuates cascading besides acting as a barrier to trade.

36. It is not an acceptable tax from the economic point of view, but it is a simple and productive one from the point of view of local authorities (in spite of evasion and corruption). The abolition of octroi cannot, therefore, be thought of unless a reliable and superior alternative or set of alternatives is found for the local bodies.

37. Improvement in property tax collections constitutes one alternative. A city surcharge on sales tax allowing the declared goods also to be made subject to the surcharge (subject to a maximum of 10 per cent of the basic tax) is a second alternative. A third alternative, is to replace octroi by a state-wide entry tax whose proceeds would be distributed to the local bodies on principles to be determined by State Municipal Finance Commissions.

Devolution of State and Central Funding

38. There should be a systematic mechanism for the devolution of funds to local bodies at the State level. The Task Force therefore recommends that every State should establish a *Municipal Finance Board (MFB)* or similar standing institutions to keep constant track of local finances and for the purpose of good maintenance of information on local finances which would be supplied to the MFB. The MFB would continually monitor the income and expenditure performance of the municipalities with respect to targets, as set out in the planning process, over the implementation period of the programme. The recommendations with regard to annual capital outlay to be devolved by the State Government would come from the MFB on the basis of this analysis from monitoring feedbacks.

39. A *Municipal Finance Commission* should be appointed every five years under the aegis of the MFB suggested above to recommend the basis of final devolution from the state to local bodies. It is essential that the devolutions from the State are systematic and formula based while the gap filling approach should be avoided. Some of the essential elements of the formula would be:

- (a) appropriate population weights for each town and city ;
- (b) linkage with an indicator of resource raising efforts of each local body ;
- (c) equalisation on the expenditure side.

Other Revenue Sources

40. The Task Force recommends that 10 per cent from the corporation income tax should be earmarked for local bodies and passed down to the local bodies systematically as suggested above. At present, this would mean an addition of about Rs. 250 crores which will amount to addition of about a third to the current revenues of local bodies. This is also justified since the vast majority of corporations carry out their activities in urban areas and cause great demand for the provision of urban services.

41. The Task Force further recommends that 10 per cent of the state sales tax, 100 per cent of the profession tax and 50 per cent of the entertainment tax should be devolved down to the local bodies.

IV. FINANCING OF URBAN INFRASTRUCTURE

Plan Finance

42. The Planning Commission has been insisting that the municipal development plans must be integrated with the state plans; unfortunately, the modalities of such integration have not been worked-out by the Planning Commission or by any State. Presumably, this would imply higher resource commitments on the part of the States for urban development. Either the entire municipal planning and development responsibilities are assured by the State agencies or the State government finances individual development projects. The approach to municipal plan finance should resemble the method operating at the state level.

Separation of development and maintenance roles

43. The root cause of the desparate approach towards the municipal development plan lies in the artificial separation of developmental and maintenance roles for urban public services. As a result of the institutional separation of urban development and maintenance tasks, the linkage between the plan and non-plan components of urban development gets blurred and hidden. This has the effect of determination of the plan size for urban development without any reference to the size of the committed budget for urban public services, so that at each successive stage of plan expenditure the backlog deficit for its maintenance increases.

Devolution from the Centre

44. It is imperative that appropriate revenue sharing and plan financing arrangements be evolved so that the municipal plan and non-plan requirements could be met adequately. The Task Force has already suggested the sharing of some Central and State Taxes with local Governments in order to enable them to meet their maintenance responsibilities. The Planning Commission must ensure that the State and Municipal Plans are effectively integrated for attracting the level of plan finance needed for the combined state-municipal sector. We endorse the new arrangements for better urban development planning at the Central, State and Local levels that are being recommended by the Task Force on "Planning of Urban Development".

45. In working out the needs of Local Governments for funds for maintenance of created assets, it is recommended that the Municipal Finance Commission take specific cognizance of past capital investments in cities, and devise systematic means of devolution accordingly.

46. State governments should issue general guidelines to municipal bodies for the formulation of their respective municipal development programmes under different sectors, so that they can be integrated with the state level plans for urban development along with the plans for other agencies.

47. Municipal bodies should be asked to prepare capital budgets for the five-year plan periods based on the guidelines suggested above. The larger urban bodies and corporations will be able to do this themselves but the others would need technical assistance from State Level bodies for this purpose. The standing Municipal Finance Board recommended earlier should include technical assistance on this account as one of its functions.

48. The Task Force recommends that urban bodies should prepare separate capital and revenue budgets. This will enable systematic linkage between the two and a better estimation of the current expenditure needs of local bodies. It is believed that through the introduction of a system of linking revenue performance to capital works programmes of a municipal body, they will be given incentives for improving their financial position by identifying different revenue sources for both capital as well as current expenditure.

User Charges and Capital Financing

49. Despite the larger devolution recommended, greater funds need to be generated by urban bodies themselves so that there can be a greater degree of self-financing. The magnitude of devolution of central and state funds for urban development is necessarily limited by the pressing demands for resources for other needs.

50. The Task Force recommends that there should be a greater degree of reliance on user charges for the financing of urban services which are more amenable to such charges. The advantages of the user charge approach are many. First, a direct *quid pro quo* is established between the payment for the

service and the benefit derived from the service. Second, the user-charge approach avoids the possibility of non-beneficiaries having to pay for particular services. Third, the user is better able to assess the quality of the service supplied in relation to the fee he pays and therefore monitor the efficiency of the local authority supplying the service. Fourth, institutional financing from non-budgetary sources becomes easier with the user-charge approach since loans can then be directly realised.

51. The services that are more amenable to the user-charge approach include water supply, sewerage, drainage and sanitation partially, solid waste disposal, area development, shelter and urban renewal. The levy of user-charges for water supply implies wide-spread metering which itself is expensive. Furthermore, a significant portion of our urban population receives water from public standposts and will continue to do so in the foreseeable future. Thus, it is unlikely that user-charges can finance more than 2/3 of the total costs of water supply systems. Similarly, fees for house connections etc. can finance only part of the investments in sewerage, drainage and sanitation. A significant portion of the costs of solid waste disposal are in sanitary landfills which are also difficult to finance completely through the levy of user-charges. Area development, shelter and urban renewal, however, can, in principle, be fully self-financing.

52. Thus, the levy of user charges are seen to finance 1/2 to 2/3 of total costs of the different types of urban services which are at all amenable to user-charges. It would be possible to finance this portion from financial institutions if appropriate institutional development takes place. The rest will continue to be financed through the regular budgetary procedures of plan finance.

Reform of Municipal Budgetary Procedures

53. At present, municipal budgets do not draw a distinction between Revenue and Capital accounts. Typically all financial capital transactions are booked under a separate head of the general budget entitled "Extraordinary and Debt". The Task Force has already alluded to the need for separation between Revenue and Capital Accounts of the municipal budgets. Several potential benefits are foreseen. First, it should assist the integration between municipal planning of urban infrastructure expansions and their funding from local and state sources. Second, the introduction of capital budgeting should assist the development of institutional finance for urban infrastructure. Third, it should improve the economic and accounting basis for the formulation and levying of user-charges. Finally, and perhaps most importantly, the widespread adoption of separate Revenue and Capital accounts could greatly enhance the financial discipline of local bodies.

54. At present, creation of urban infrastructure is frequently unrelated to the capacity of municipalities to generate enough revenue to operate and maintain the new assets. The establishment of separate accounts for capital and revenue can help in moving to a more rational system where capital creation is commensurate with the income necessary to operate and maintain the investments. This important objective will not follow automatically from the establishment of capital budgeting. Much will depend on how much stress is placed on this objective by Municipal Finance Commissions. Furthermore, the institution of the capital/revenue account dichotomy should also help Municipal Finance Commissions in developing a system of developing funds which is based on need, revenue capacity and performance (in revenue raising and expenditure economy) in the revenue account.

V. INSTITUTIONAL DEVELOPMENT : THE NEED FOR APEX URBAN FINANCING INSTITUTION

55. The need for institutional financing of a certain portion of urban infrastructure investment has been established along with the associated changes necessary in state and local level budgetary procedures. The use of development banks to finance development oriented sectors has become established in India. These banks, by providing expertise as well as financial resources to a particular sector, encourage financial deepening of the economy as well. Various institutions serving the financial needs of rural development programmes have now been subsumed under NABARD; the industrial sector is served by IDBI, IFCI, and ICICI, and HDFC and HUDCO have concentrated on the housing sector. Similarly, there is a need for a specialist financing facility to deal with the emerging urban problems that India will face in the foreseeable future.

56. The Task Force therefore strongly recommends the establishment of an APEX URBAN FINANCING INSTITUTION (UFI) for the purpose of financing urban infrastructure projects in all the towns and cities in the country.

The objectives of the UFI will be :

(i) To increase the supply of capital that is made accessible to local authorities to finance infrastructural projects with special reference to urban services.

(ii) To help in particular medium and small size towns to provide adequate urban services by granting them long-term finance for urban projects.

(iii) To help to streamline the financial and accounting systems in force in local bodies so that external funding becomes a real possibility.

(iv) To study in detail methods by which the revenue structure of local authorities can be rationalised so that urban services are priced adequately to cover the costs of their provision.

(v) To act as intermediary through which funds could be channelled and monitored in a systematic manner for urban development activities; and

(vi) To help identify projects that have a good potential for financing. The UFI would also help to undertake detailed appraisal and could offer technical assistance in implementation and monitoring.

Tasks (iii) and (iv), however, could be contracted out to institutions specialising in the area of urban taxation and finances.

57. Initially, UFI would provide long-term loans to urban bodies for urban projects which have proven payback potential. As the revenue structure of local bodies is improved, they would be in a better position to avail themselves of long-term finance from the UFI. Relatively shorter-term loans can be provided for area development and urban renewal where cost recovery would be easy as well as quick, extending to 3 to 5 years only.

Capitalisation

58. The UFI should be initiated with an initial paid up capital of about Rs. 100 crores with the Reserve Bank of India acting as the major promoter contributing about 3/4th of initial capital. Other financial institutions may contribute to the remaining equity. As the institution expands, gains experience and achieves success, the equity base can be widened with state Governments and local authorities themselves contributing to the equity. If the institution is successful, the equity may be doubled in the fourth year.

Sources and Uses of Funds

59. It has been indicated that the urban infrastructure needs for the 1986-91 period are in the region of Rs. 8000 crores (at 1980-81 prices). Since the UFI can finance only financially sound projects, it may be expected to finance upto Rs. 1500-2000 crores of the total urban requirements in its first five years. For this magnitude of funds to be available, the UFI would have to raise resources through the issue of long-term bonds, loans from financial institutions like L.I.C., G.I.C., U.T.I., etc., and mobilisation of deposits. Later on, repayments would contribute an increasing share of its resources.

60. The main benefits of a UFI may be listed as follows :

(i) Increase in the supply of capital that is made accessible to local authorities to finance local services.

(ii) Long-term reduction in the cost of capital as the intermediary would issue appropriate financial instruments and tap various sources of finance efficiently.

(iii) Important Management feed-back to local authorities to improve their management procedures-financial and non-financial. In addition, the introduction of modern accounting systems.

(iv) The UFI would act as an *alternative* source of funds to the smaller and medium size local authorities that are dynamic and operationally sound. Others would also aspire to a similar status and UFI would possibly be able to aid them in their endeavours.

(v) The UFI could encourage joint sector financing by participating in both public and private sector projects to promote local urban services. It could also support activities like leasing operations specifically targeted to local authorities (i.e. local authorities might find it more feasible to lease, on a long term basis, the equipment it requires rather than make immediate capital outlays in attempting to purchase it).

Outline of the Delivery System

61. It will be difficult for an apex UFI to deal adequately with the needs of the large number of smaller towns in the country. As it develops it would therefore be necessary for State Level UFIs to be established which would be re-financed by the apex UFI. Just as the IDBI appraises and finances large industrial projects directly while smaller projects are routed through SFCs, the apex UFI could directly finance the larger cities while small and medium towns could be indirectly financed through State Level UFIs. It will be essential to regulate the inter-state distribution of the funds of the UFI equitably.

62. It is hoped that this institutional development in the field of urban infrastructure will ease the resource requirements of urban bodies considerably. It will also introduce more systematic methods of project preparation, appraisal and execution in the process of financing urban projects.

I. EXISTING STATE OF URBAN FINANCES

Introduction

1.1 Municipal government in India covers five distinct types of urban local authorities; the municipal corporations, the municipal councils, the notified area committees, the town area committees and the cantonment boards. The municipal corporations and councils are fully representative bodies, while the notified area and town area committees are either fully or partially nominated bodies. The cantonment boards are created under a central legislation and consist of partially elected authorities supervised by the Union Ministry of Defence. The municipal authorities are creatures of the state governments where the district officer exercises indirect control over their functioning, except in the case of the municipal corporations which deal directly with the state government. Unlike the rural local authorities (Panchayati raj), the urban local authorities are not organized hierarchically, nor are their activities integrated with either the rural local authorities or the states' field administration in the districts.

1.2 Municipal corporations are constituted for cities and bigger towns and they enjoy more tax powers, functional competence and autonomy in decision-making, than other types of municipal authorities. The municipalities enjoy more or less the same tax powers as the corporations, except that the degree of state control here is relatively more. The notified area authorities are constituted for rapidly growing towns which do not qualify for full-municipalization, while the town area committees are created for small townships having pronounced rural characteristics.

Tax Powers and Functions

1.3 Municipal authorities enjoy tax powers and functional competence as conferred on them by the state governments through a process of delegation incorporated in the governing legislations constituting such authorities. However, the state governments can impose parallel taxes or undertake similar functions. A few municipal laws empower the local authorities to levy any tax which the state legislature has the power to impose with the consent of the state government (e.g., under the U.P. Municipal Corporations Act, 1959), although this type of general tax power has not been used so far. The taxation power of the corporations are confined to a few items and are generally of a compulsory nature; on the other hand, the tax powers of the other types of urban local authorities cover a wider range, optional in nature and subject to a procedure for their imposition requiring the final sanction of the state governments. The tax powers of the notified area and the town area committees are about the same as in the case of the municipalities, except for a greater degree of state control over the town area committees in this regard.

1.4 Municipal authorities are endowed with specific local functions covering regulatory, maintenance and development activities within their jurisdictions. Most municipal legislations lay down a detailed list of functions; these are sometimes laid down in the financial rules. Generally municipal functions are classified into obligatory and discretionary; in West Bengal and Orissa such a distinction is absent. Classifying the municipal functions into obligatory and discretionary does not mean that a local authority cannot undertake a discretionary function unless all the obligatory duties have been satisfactorily performed, since enforcement of such a condition would entail detailed laying down of physical standards of performance which is not easy for regulatory functions, nor practicable for service functions in view of the general paucity of resources.

Municipal Functions

1.5 Municipal functions can be broadly classified in terms of house-keeping tasks, regulatory activities and civic responsibilities. Regulatory functions include enforcement of building bye-laws, registration of births and deaths, controlling noxious trades and industries, regulating markets and slaughter houses, ensuring the quality of food and drug sold, checking weights and measures, etc. The civic

functions include water supply, drainage, sewerage and conservancy, public health, sanitation, dispensaries and maternity homes, primary education, street lighting, roads and public works. Although there is a certain uniformity in the functions of municipalities in most states, there are differences resulting from different historical experiences. The states which were largely under British rule are found to be quite uniform in this respect while former princely areas such as Karnataka, the Telengana region in Andhra Pradesh, Jammu and Kashmir, Himachal Pradesh and Rajasthan display a more restrictive set of municipal responsibilities. These differences have, however, been narrowing down over time.

1.6. The constitutional position is that the states can delegate any of the functions in the State List and the Con-current List to the municipal authorities. In practice, out of the 38 entries in the State List only 16 of the entries have been partially delegated to the municipal authorities, out of which in only 8 fields is there substantial municipal activity. These were listed above. There has, in fact, been a tendency towards the reversal of some of these responsibilities to the State. In some states, for example, there are statewide water supply and sewerage boards which are taking up the responsibility for direct state investment for the discharge of these functions. Similarly, there are many urban development authorities which are also State agencies and are assuming some of the civic functions hitherto discharged by the municipal bodies. This usurpation of local functions by state governments or their agencies has been justified mainly on grounds of poor performance and inefficiency of the local bodies. There has also been reluctance on the part of state governments to allocate plan funds to local bodies which are regarded as generally unreliable: there has therefore been a tendency to channel these funds through state investments or through special purpose agencies.

1.7 Given the multiplicity of agencies which are concerned with the investment in urban services and in their subsequent maintenance, it is difficult to obtain a composite idea of the totality of urban finances. The data on municipal finances themselves are not good nor comprehensive nor systematically collected on a regular basis. There have, however, been various studies with varying degrees of coverage so that it is possible to obtain a rough idea of the trends of municipal finances.

Patterns and Trends in Municipal Finance

1.8 There are four main sources of data on municipal finance which can be used to judge the trends over time. A comprehensive attempt in collecting financial data of the municipal authorities was made by a committee of ministers appointed by the Central Council of Local Self-Government, headed by Rafiq Zakaria in 1963, which compiled data for 1960-61.¹ An attempt was made by the Town and Country Planning Organisation (TCPO) in 1978 to collect sample financial data on 344 local authorities for 1975-76 in order to assist the work of the Seventh Finance Commission.² The third source of data is study on municipal finances by the National Council of Applied Economic Research (NCAER) but this was based on a relative small sample of 39 municipal authorities for 1976-77.³ The most recent compilation of data has been for the Eighth Finance Commission by the National Institute of Urban Affairs⁴. They succeeded in collecting information on 1990 urban local bodies out of a total of 2613 which existed in 1979-80. Of these, 1774 were municipalities of which 1533 (86%) were covered and the rest (839) were other local bodies like notified area committees of whom 457 (55%) were covered.

Importance of Municipal Finance

1.9 In the absence of reliable financial statistics of municipal finance it is difficult to size-up the share of the municipal sector in the total public sector of the country; however, on the basis of the Zakaria Committee's data one could roughly place it at around 8% in 1960-61. The NCAER study attempts comparison of relative taxation by the central, state and municipal governments during 1977-78.

According to these data, the share of municipal governments had come down to about 4.5 percent in total tax revenues of the country. This figure is roughly corroborated by the recent N.I.U.A. Study.

1.10 The overall trend in the municipal budgetary position between 1970-71 to 1976-77 however shows some improvement; the growth in municipal expenditure has been slower than in municipal revenues resulting in unspent surpluses, which is more pronounced in the case of corporations than in

1 India, Augmentation of Financial Resources of Urban Local Bodies, Report of the Committee appointed by the Central Council of Local Self-Government, Delhi, 1963 (Zakaria Committee).

2 India, Report of the Finance Commission 1978, Delhi, 1979.

3 National Council of Applied Economic Research (NCAER), A Study of the Resources of Municipal Bodies, New Delhi, 1980.

4 National Institute of Urban Affairs, A Study of Financial Resources of Urban Local Bodies in India and the Level of Services Provided, New Delhi, 1983.

municipalities. The data show that a large part of the revenue surplus has been diverted to bridge the deficit under capital account, especially in corporations. In municipalities, the capital budget was more or less balanced. Similar results were obtained in the N.I.U.A. Study. In 1979-80, the total ordinary income of all the municipalities combined was about Rs. 850 crores while total expenditure was just under Rs. 760 crores. On the capital account, there was an income of about Rs. 205 crores while expenditure was about Rs. 245 crores. Thus, there was still an overall surplus of about Rs. 50 crores. Thus, paradoxically, the municipalities do not appear to have been spending the income they do have; yet it is generally concluded that the municipal financial situation needs considerable improvement.

1.11 There are a number of reasons for the apparent sound financial health of municipalities. In most states, municipalities are statutorily required to have surplus budgets. They therefore have to keep their operations such that they can show surpluses. Further, most municipalities do not have proper capital accounting and there is usually no provision for depreciation and debt charges through the operation of a sinking fund, with the result that either obsolete machinery and equipment are not replaced or the cost of replacement is charged to capital account. The level of maintenance deteriorates further. Municipalities are simply not providing an adequate level of services nor is there proper maintenance of the assets that are created.

1.12 Paradoxically, therefore, the existence of surpluses is an indication of the low service levels existing in our cities. With the rising pace of urbanisation it is imperative that this situation be retrieved. Better operation and maintenance of existing infrastructure will reduce the need for new investment. As it is, given the paucity of resources, it is difficult to provide even the minimum of services to a majority of the urban population.

1.13 In assessing the adequacy of the growth in municipal revenues and expenditures it is instructive to compare them with the state and central level tax revenues. An attempt was made in the NCAER study to compare the compound growth rates of total revenue, tax revenue and revenue from commodity taxes for the central, state and sample municipal authorities during 1970-71 to 1976-77. The result shows that the annual growth of municipal revenue was only slightly lower (15%) than for state (17.6%) and central government (17.1%). The growth rates of municipal taxes are particularly lower in the states where octroi is not levied; among the octroi-levying states, the growth rate of octroi was much higher in the corporations and major municipalities than in smaller municipal towns. This indicates that as between the two major municipal taxes—property tax and octroi—the relative potentiality of property tax has been under-utilised.

1.14 Some statewise results from the recent NIUA Study are given in *Appendix Tables 1.1 and 1.2*. The large variation between states is striking, both in terms of growth rates as well as in per capita magnitudes. The very large differences in per capita magnitudes indicate that even with the present system of taxes and other revenue sources there is considerable room for improvement in the overall resource situation for urban finances.

Resource Structure

1.15 An analysis of the trend in the municipal revenue structure may be made by comparing the data available in the Zakaria Committee and the NCAER Study as in Table 1.1. Compared to the corporations, the municipalities rely less on tax revenue, and more on non-tax revenues and grants. In recent years, the reliance on grants by the municipalities seems to have increased at the cost of non-tax revenues; this seems to be the position in the case of the corporations as well, although to a lesser degree. This is corroborated by the NIUA Study which gives information on the resource structure according to the Class Size of Towns, given in Table 1.2. We now turn to a state-wise comparison of municipal revenue structure on the basis of the Zakaria Committee's report and the TCPO data appearing in the Seventh Finance Commission's report. The combined data are presented in Table 1.3.

1.16 A casual look into the figures presented would make one feel somewhat uneasy about the 1975-76 data pertaining to Gujarat, Karnataka and Rajasthan. On an overall basis, it would appear that over time the proportion of non-tax revenues has increased, while the reliance on tax revenues and grants has decreased. By itself this may be regarded as a welcome development, but without a more reliable data base spread over a continuous period, it is difficult to come to any firm conclusion. The variation in external assistance to the municipalities indicates lack of any firm policy on the part of the States towards grants-in-aid; in the case of West Bengal this has shot up by doubling its proportion, while in as many as 9 states this is still below 10%.

1.17 The data from the N.I.U.A. Study, given in Appendix Table 1.1, give somewhat different results which point to the importance of improving the data base on municipal finances. According to this study, the proportions of tax revenue, non-tax revenue and grants in 1979-80 were 65, 10 and 25 percent respectively. It is difficult to believe that the position could have changed drastically since 1977-78 and these differences are more likely because of either sampling or definitional problems. Nevertheless, it is clear that tax income is in the region of 65 percent and there is some indication that this proportion has declined over the past 20 years.

1.18. A comparison of municipal revenue structure by population size classes was compiled by the N.I.U.A. for 1974-75 and 1979-80 which is presented in Table 1.4. It is clear that the reliance on tax resources is more on for the larger cities than the smaller ones. In particular, it is the metropolitan cities alone which rely on tax revenue for over three quarters of their ordinary income. For the other municipalities this proportion is only about 55 percent or less and this has decreased quite significantly since 1974-75. Even among the metropolitan cities, the position is dominated by the relatively strong revenue position of Bombay where octroi has been a particularly buoyant source of tax revenue.

1.19. The composite picture that emerges then is that the own tax resource a base of local bodies has been weakening over time and this seems to be a general pattern of all but the metropolitan cities. Their reliance on grants from state governments has increased to almost a third of total income. Moreover, since it is generally desired that octroi be abolished, or at least minimised in its application, it is clear that a much more systematic procedure for the devolution of state taxes as well as grants be devised for urban finances.

Expenditure Pattern

1.20. A comparison of the pattern of municipal expenditure during 1960-61 and 1976-77 for the corporations and the municipalities is presented in Table 1.5.

1.21. It would be seen that there is hardly any pattern in terms of prioritization among various municipal functions in the corporations and the municipalities. Only education in the corporations and public works in the municipalities received somewhat stable allocations.

1.22. A state-wise comparison of the pattern of the municipal expenditure between 1960-61 and 1975-76 may be made on the basis of *Tables 1.6 a and b*. During 1960-61 for Karnataka and Maharashtra the data on general administration (including tax collection) and roads excluded the municipalities; therefore, the figures are not comparable. The Bihar data on general administration (including tax collection) also appears to be unusually low; on the other hand, expenditure on miscellaneous items in Bihar, Karnataka, Madhya Pradesh, Maharashtra, Uttar Pradesh and West Bengal appear to be unusually high. The data for 1975-76 show a number of peculiarities; apparently the figures for at least three states are to be suspected : Gujarat, Jammu and Kashmir and Karnataka. In all these three states the expenditure on miscellaneous items would appear to be abnormal. If one recalls the unusual nature of revenue data for Gujarat in 1975-76 the conclusion would be to ignore the municipal financial reporting for the state altogether. Apart from these, one would also like to enquire into the Kerala data on general administration and collection of revenue. The unusually low allocation for education in Himachal Pradesh is probably due to the fact that only the Simla Corporation has education responsibilities; for other municipal areas, education is a state function.

1.23. Appendix Table 1.2 also gives the N.I.U.A. data for municipal expenditures in 1979-80 in terms of per capita expenditures (at 1970-71 constant prices). Again, there is no predominant pattern in term of priority of function that emerges. The one thing that does seem apparent is the decline of water supply as a municipal function. This is because states have increasingly resorted to establishing statewide water authorities for the coordinated provision of water in both rural and urban areas. As remarked earlier, this is another indication of the assumption of what are traditional local level responsibilities by state level agencies.

1.24. Information is also available on the pattern of ordinary expenditure of municipal authorities according to class size of towns. One point that emerges very strongly is that smaller the town, the higher is the proportion of expenditure that is spent on overheads like general administration and collection of revenue. This varies from about 10 to 12 percent for metropolitan cities to as much as 30 to 35 percent for the smaller towns. Furthermore, the progression from the large cities to smaller towns is quite regular. This provides good evidence that there are economies of scale in administration.

Existing Methods of Devolution to Local Bodies

Federal Municipal Fiscal Relations

1.25 In India local governments, including municipal authorities, function within the exclusive jurisdiction of the states under the constitution (List II/5), and the centre can do no more than use its influence, advice, exhortation and incentives to the states for an enlightened approach in this matter. One has to admit that so far the centre has been extremely cautious and circumspect to pressurize the states on this count, but it is possible to imagine that in future this attitude might give way to a direct federal involvement in urban affairs, including municipal finance, as has happened in most other urbanized federations, especially in the USA and Australia.

1.26 With rising urbanisation and increase in the number of large cities it is possible to envisage more direct central involvement in the financing of cities in the future. The necessity for central concern to improve the quality of life in the urban areas would certainly increase and attempts are likely to be made to marshal more central funds through the use of pass-through provisions for earmarking central assistance for the purpose of augmenting urban finances.

State-municipal fiscal relations

1.27 Unlike federal-state fiscal relations which are regulated by express provisions in the constitution, at the state-municipal levels these relationships are wholly on informal lines and in the absence of any well-established institutional arrangement for periodical review through state-appointed finance commissions, the entire area of state-municipal fiscal relations remain vague and uncertain. Appointment of state-municipal finance commissions was suggested by an official committee before the setting up of each federal Finance Commission:

to examine the financial requirements of local bodies for meeting their financial obligation for water supply, sanitation and health and other obligatory services and expenditure on schemes of planning and development. The Commission should make an assessment of prospective revenue which the local body should be expected to realise from the resources allocated to it and lay down the scale for having certain taxes divisible between the state government and the local bodies. After adding the revenues which the local body can realise from non-tax resources, the balance may be covered by grants-in-aid to the local bodies out of the consolidated fund of the state.¹

1.28 In 1972, the Central Council of Local Self-Government and the All-India Council of Mayors urged the state governments to appoint municipal finance commissions on the lines suggested by the Rural-Urban Relationship Committee in 1966. Several state governments have since appointed such state-municipal finance commissions and their reports are now available. Andhra Pradesh (1971), Orissa (1974), Maharashtra (1974), Karnataka (1975), Kerala (1976) and Tamil Nadu (1980). The latest Commission of this Centre has been appointed in West Bengal which finalised its report in 1982. What distinguishes the West Bengal Commission from others is that it was expected to cover not only the familiar ground of municipal finances as such, but also simultaneously examine the state's finances for an optimum level of resource transfer to the municipal bodies to make these viable in relation to their needs. It was also supposed to examine the municipal plan and non-plan requirements *vis-a-vis* the state's resources and make specific recommendations to meet the existing and projected shortfall. One interesting aspect of the West Bengal Commission's terms of reference was an examination of the municipal size and its effect on finances. In essence, the terms of reference of the West Bengal Commission follows the footsteps of the federal finance commissions and truly reflects the purpose of such commissions, as originally envisaged by the Rural-Urban Relationship Committee. The experiment in West Bengal is thus the first attempt to integrate municipal finance with that of the state and, ultimately, of the centre, holding the promise of ending the isolation of municipal finance from the mainstream of fiscal policy in the country.

Fiscal Transfer to the Municipal Authorities

1.29 The fiscal transfer mechanism from the states to the municipal authorities takes several forms, such as: (i) assigned revenue and shared taxes, (ii) revenue grants, and (iii) plan assistance.

Assigned revenue and shared taxes

1.30 In India the assigned revenue and shared taxes have taken certain equalization slant, the official reports have in no small measure contributed to the confusion of these measures with general grants. The assigned and shared taxes are compensatory in nature where the recipient governments share the revenue as of right. Assigned and shared taxes have to be distributed at least to a substantial extent of origin, while the needs element predominates in the allocation of general grants.

1.31 The examples of assigned revenues to the municipal authorities are few : these include the receipts from fines in breach of municipal laws in a few states, the proceeds of entertainment tax in Tamil Nadu and Andhra Pradesh, land revenue in Gujarat, and entry tax in Madhya Pradesh.

1.32 The list of shared taxes, on the other hand, are somewhat varied : entertainment tax, land revenues, and property registration fee are generally shared with the municipal authorities; in West Bengal the entry tax in Calcutta metropolitan area is shared with the municipal authorities through the state government—one example of use of a shared tax as a grant. The most important item of shared tax in the municipal field is the motor vehicles tax. This was originally a municipal tax, but since 1939 it has been provincialised and the municipal authorities receive compensation on the basis of revenue foregone, calculated on the average of three years' receipts immediately before the takeover. Essentially, therefore, this is not a shared tax, but a compensatory grant. Over time, various other considerations have crept in the manner of its distribution—population, road mileage, volume of traffic, etc. The original fixed compensation has now been given up, but generally a fixed percentage of the total receipts (say, 25%) is distributed on bases that are not always explicit or rational. Even when this is distributed as a compensatory grant or a functional responsibility (road maintenance), the distributable share needs to be determined on the basis of the functional division of responsibilities between the state and municipal authorities, the *inter se* distribution among the municipal authorities might be made on the basis of objective and measurable criteria.

Revenue Grants

1.33 The policy towards grants to the municipal authorities has been well-expressed by the Rural Urban Relationship Committee :

..... while separation of some definite sources of income and sharing of others should be adopted to the extent to fulfil the normal requirement of local bodies, grants-in-aid are very important and should play an important role as supplementary to other methods of financial adjustments.¹

1.34 Among the advantages of the grants-in-aid over tax sharing, the Committee listed : (a) greater flexibility of revenue, (b) possibilities of relating grants to the differential means and needs of the municipalities so that the smaller and financially weaker municipalities could be differentially treated during their initial stages of growth, and (c) the possibility of using grants as instruments of state policy.

1.35 Earlier, the Taxation Enquiry Commission suggested the adoption by the states of a few principles; such as (a) devising a system of general purpose grants to the bigger municipalities and corporations, (b) classification of the local authorities in terms of population, area, resources etc. and relating the grant to these factors as well as the size of the local budgets, (c) the basic grant should be adequate, after taking into account the municipal domestic resources, to finance their basic functions, (d) the basic grant should be stable over a reasonable number of years, say 3 or 5 years, and (e) in addition, specific grants are to be given for particular items or services, being conditional on maintenance of efficiency and exploitation of their own resources by the local authorities as indicated by the state government from time to time.²

1.36 Following the recommendations of the Commission, three states have formulated well defined policies of grants-in-aid to the municipal authorities : Madhya Pradesh (1962), Gujarat (1965) and Kerala (1966). In Gujarat and Kerala, the state governments appointed high level committees on grants-in-aid (Gujarat: 1965 and 1972, Kerala : 1964). In Madhya Pradesh and Gujarat, the corpora-

1. Report of the Rural-Urban Relationship Committee, Vol. III, *op. cit.*, p. 196.

2. Report of the Taxation Enquiry Committee, Vol. III, *op. cit.*, p. 367.

tions are in a separate category, while the corporations and the major municipalities are clubbed together in Kerala as distinct from the smaller minor municipalities.

(i) *General-purpose Grants* : The position in the three states of Madhya Pradesh, Gujarat and Kerala on the nature of their general-purpose grants to the municipal authorities can be described as follows :

All the three states try to see that the municipal authorities utilise their tax powers fully and all of them intend to create state level central valuation agencies for the purposes of property tax. Gujarat makes it a condition that *per capita* municipal taxation has to be increased within a five-year period to qualify for the general purpose grant. In Gujarat another general grant for dearness allowances ties municipal tax efforts to the quantum, assistance. Among the three states, only Gujarat seems to have prepared a comprehensive grants-in-aid code to be revised periodically, presumably once in five years. A system of detailed municipal financial reporting to the State Governments already exists; what is needed is to analyse and publish the data for policy formulation and decision-making.

(ii) *Specific Grants* : Traditionally, state grants to the municipal authorities have developed on specific lines. There are two broad types of specific grants : recurring and non-recurring. Recurring grants are given to meet the maintenance expenditure for a particular function, usually these are based on unit-cost principles, as in education and health. In addition, there are a number of compensatory grants *in lieu* of the transfer of particular items of municipal taxes, income from fines, etc. The variety of such grants is baffling and one may find a number of such grants for financing a particular functional head. The basis of many of these isolated grants are also not clear and one might question the purpose of continuation of these grants on a recurring basis, each to be tied to the apron-strings of the functional departments of the state governments. If exercise of state control is the objective, such control could be exercised in relation to a system of state-wide priority of attainment of a minimum level of service provision and dovetailing these with the pattern of state plan assistance. Adoption of such a system of development assistance would ultimately cause the disappearance of a motley array of non-plan recurring grants.

1.37 Non-recurring specific grants consist mainly of a variety of project grants to the municipal authorities, depending on the budgetary position of the state governments and the initiative displayed by the municipalities in this regard, coupled with lobby pressure. Madhya Pradesh and Gujarat have adopted elaborate patterns of capital grants for the municipal authorities, elsewhere these are restricted to a few critical areas of development. It is fair to conclude that capital grants to the municipalities are not linked with national planning, and municipal development has not moved beyond undertaking isolated projects. Without integration of municipal and state planning, it is not possible to ensure necessary development finance to the municipal institutions, nor can there be any coordinated local development of any significant magnitude.

Plan Assistance

1.38 A system of development assistance to the municipal authorities presupposes an effective integration between the municipal sector and the state plans, similar to the finalization of the state plans and the commitment of central assistance for the same. Such integration is not only not being attempted, the very idea seems to be alien to the existing system of state-level planning.

1.39 Given an integrated system of municipal and state planning, one can visualize a two tier capital grants system : schemes having overall state priorities might be entitled to patterned grants, while block grants could be given to the municipal authorities to finance their own plans. Since the state governments are also providers of loan funds for municipal development, a block grant-loan package may be offered to the municipal bodies on an agreed, say, 2/3 : 1/3, basis for financing plan projects in the municipal sector.

1.40 A similar formula for block central assistance exists for financing the state plans at the national level. A block plan assistance to the municipal sector at the beginning of a plan period would obviate the need to policing the diversion of plan assistance in schematic and project terms; moreover, this would bring in the distinction, for plan assistance purposes, between the state-sponsored and the municipal sectors of development within the municipal plan budgets. Presently, the purely municipal development sector is not recognized for plan assistance purposes.

State Control of Municipal Finance

Borrowing

1.41 No municipal authority can raise loan without an explicit sanction of its state government. When the loan amount exceeds Rs. 500,000 or the repayment period is within 30 years; local borrowing needs central approval in terms of the provisions under the Local Authorities Loans Act, 1914 (a central legislation). The borrowing powers of the premier corporations of Bombay, Calcutta and Madras are, however, defined in their respective governing legislations which indicate the upper limits of public borrowing expressed either as a percentage of the total ARV within their jurisdictions or as a definite monetary limit. With the exception of the corporations, the other municipal authorities may borrow only from the state governments. When the corporations borrow from the open market, they have to satisfy the state and central governments and also the Central Bank (Reserve Bank of India) as to the needs and purposes of such borrowing. The securities issued by the corporations of Bombay, Calcutta and Madras are deemed to be "trustee securities" under the Indian Trust Act, 1932—a central act. In cases of emergency, the municipal authorities sometimes borrow from commercial banks or approach the state government for ways and means advance. The central government does not directly lend to the municipal authorities, although central funds are routed through the states for undertaking specific municipal projects:

1.42 In terms of the provisions of the Local Authorities Loans Act, 1914, the municipal authorities may incur loans for municipal works, relief operations, prevention of epidemics and repayment of previous loans. The loan must be spent within the municipal jurisdiction and may not ordinarily exceed Rs. 500,000 when raised in the open market or Rs. 2.5 million when provided by the state government. The period of repayment is usually 30 years, but in the case of a corporation it varies from 30 to 60 years.

1.43 Apart from these restrictions, the state governments fix interest rates and timing of municipal borrowings including the terms and conditions. The final approval is accorded only after consultation with the Reserve Bank of India and, sometimes also, with the central finance ministry. The Reserve Bank of India settles the timing of all public borrowing in the country and usually these are not made more than once a year. The interest charged by the state governments is usually the bank rate plus 1% guarantee charge on government loans. In the case of market borrowing with state guarantee, the Reserve Bank of India does not permit payment of an interest rate higher than on ordinary government borrowing. All other terms and conditions of municipal borrowing are either prescribed by law or settled by the concerned state government.

Taxation

1.44 State control over municipal taxation takes place in two ways : (i) control over imposition of a new tax, and (ii) approval of tax rates.

(i) *Imposition of a new tax* : When the governing municipal legislation does not mention a particular state tax for exploitation by the municipal authorities, they may approach the state government for permission to do so. When a municipal authority wishes to impose a tax already permissible under law, there are three types of procedures to be followed : firstly, a tax may be imposed by a resolution of the municipal council; secondly, publication of a notice regarding the imposition of the tax and inviting public objections is necessary and, thirdly, a reference along with objections and replies is to be forwarded to the state government for final sanction.

(ii) *Approval of tax rate* : State control over municipal taxation is governed by detailed provisions of law or rules made thereunder. Apart from fixation of maximum and minimum rates under statute, some municipal legislations prescribe procedures for abolition or alteration of a tax. In a few corporations, the sanction is essential before an existing municipal tax is abolished; while in Tamil Nadu, Kerala and Andhra Pradesh the municipalities must inform the state government regarding such abolition. In Madhya Pradesh, a reduction in municipal tax rate has to be notified in the gazette. All indebted municipalities need state government permission to abolish or reduce a municipal tax.

Budget and Expenditure

1.45 Usually corporations are competent to sanction their own budgets; in U.P., however, when a corporation is in debt, it requires state approval of its budget. In a number of states, municipal budgets

need state sanction. For an indebted municipality, however, such sanction is mandatory. State budgetary approval is for a global sum for all services and taxation proposals contained in the municipal budget. Such approval means administrative sanction to formalise the budget proposals.

1.46 State control over municipal expenditure, on the other hand, is quite extensive and rigid. In a few states, even the corporations have to approach the state governments for sanctioning of estimates. In certain states, the municipalities enjoy higher expenditure powers than are accorded to the corporations in some other states.

Table 1.7 summarises the position.

Table 1.1

Revenue Structure of Municipal Authorities 1960-61 and 1976-77

(In Percentages)

Revenue Sources	Corporations		Municipalities	
	60-61*	76-77†	60-61*	76-77†
1. Tax revenue	72.70	72.33	60.90	58.43
2. Non-tax revenue	16.40	14.03	23.90	19.19
3. Grants-and-Contributions	10.90	13.59	15.20	22.38
	100.00	100.00	100.00	100.00

Source : *Zakaria Committee, 1963, p. 156

† NCAER Study, 1980, p. 18.

Table 1.2

Tax Revenues of Local Bodies

(as percentages of the total tax revenue)

	Year	House/ Property Tax	Octroi	Water and Drainage Tax	Entertain- ment Tax	Other Taxes	Total Tax Revenue (Rs. '000)
METROPOLITAN	1974-75	32.97	30.96	17.04	0.27	18.76	100.00 1717708.0
	1979-80	29.24	39.50	12.90	1.34	17.02	100.00 3153827.00
I	1974-75	18.66	47.56	12.99	6.32	14.47	100.00 763314.8
	1979-80	22.39	41.12	15.44	8.04	13.01	100.00 1396317.8
II+III	1974-75	16.40	41.96	12.57	9.80	19.27	100.00 483083.0
	1979-80	17.73	38.78	14.43	10.74	18.32	100.00 867330.7
IV+V+VI	1974-75	12.49	57.94	6.15	5.33	18.09	100.00 90976.2
	1979-80	14.17	53.89	9.33	4.82	17.79	100.00 150493.0
Total :	1974-75	26.15	37.66	14.99	3.45	17.75	100.000 3060082
	1979-80	25.32	40.19	13.68	4.58	16.23	100.00 5567968.5

Notes 1. Includes water tax, water rate taps, water rate metered and drainage tax.

2. Includes show tax and entertainment tax.

3. Other taxes include educational cess, libraries, fire fighting, general sanitary, lighting, animal vehicles, trade and calling, professional advertisements, State Govt. building, Central Government building, Building licence fee and miscellaneous.

Source :— N.I.U.A. Study (op. cit).

Table 1.3

Revenue structure of municipal authorities in larger states, 1960-61 and 1975-76

(In percentage)

Sl. No.	Larger States	Tax Income		Non-tax Revenues		Revenue Grants		Total Ordinary Income
		1960-61	1975-76	1960-61	1975-76	1960-61	1975-76	
1.	Andhra Pradesh	61.76	63.20	18.93	17.54	19.31	19.26	100
2.	Assam	50.00	53.44	17.80	35.14	32.20	11.42	100
3.	Bihar	49.75	36.55	12.79	16.75	37.46	46.77	100
4.	Gujarat	70.36	24.10	19.52	69.07	10.12	6.83	100
5.	Haryana	—	64.37	—	28.10	—	7.53	100
6.	Himachal Pradesh	—	70.22	—	25.96	—	3.82	100
7.	Jammu and Kashmir	85.30	48.62	14.70	49.37	—	2.01	100
8.	Karnataka	64.78	79.67	20.51	17.75	14.71	2.58	100
9.	Kerala	54.22	72.25	31.93	18.48	13.85	9.27	100
10.	Madhya Pradesh	70.54	77.68	15.39	17.24	14.07	5.08	100
11.	Maharashtra	76.25	68.78	16.99	15.73	6.76	15.49	100
12.	Orissa	43.10	51.12	14.80	22.84	42.10	26.04	100
13.	Punjab	68.70	79.30	30.00	18.98	1.30	1.72	100
14.	Rajasthan	61.40	78.35	25.50	21.50	13.10	0.15	100
15.	Tamil Nadu	63.01	64.80	26.22	32.16	10.77	3.04	100
16.	Uttar Pradesh	53.22	59.78	27.60	21.40	19.18	13.82	100
17.	West Bengal	65.22	60.10	19.55	10.90	25.23	29.00	100
	All India	66.29	63.47	20.41	23.58	13.30	12.95	100

Source :—Zakaria Committee, 1963 p. 351 and Finance Commission, 1979, pp. 226-32.

Table 1.4

Revenue Structure of Local Bodies by Size Class (1974-75 and 1979-80)

(Percentages)

Size Class (Population of towns)	Tax Income		Non-Tax Revenues		Revenue Grants		Total
	1974-75	1979-80	1974-75	1979-80	1974-75	1979-80	
1 million +	80	77	7	8	14	15	100
100,000 to 1 million	64	55	13	12	23	33	100
50,000 to 100,000	54	54	25	13	22	34	100
20,000 to 50,000	63	53	15	12	22	35	100
10,000 to 20,000	65	53	15	12	20	36	100
5,000 to 10,000	64	56	15	12	20	33	100
Less than 5,000	67	49	20	18	13	33	100
Total :	71	65	12	10	18	25	100

Source : N.I.U.A. Study 1983 (op. cit.)

Table 1.5

Patterns of Ordinary Expenditure of Municipal Authorities, 1960-61 and 1976-77

(In Percentages)

Expenditure Items	Corporations		Municipalities	
	60-61*	76-77†	60-61*	76-77†
1. General administration and revenue collection	12.30	8.33	11.60	13.62
2. Public health	47.50	20.32	33.40	27.94
3. Public safety	8.20	4.62	13.10	5.22
4. Education	15.00	16.64	15.00	9.30
5. Public works	8.50	11.34	13.20	12.38
6. Others	8.50	38.75	13.70	31.54
	100.00	100.00	100.00	100.00

Source : *Zakaria Committee, 1963, p. 158.

†NCAER Study, 1980, p. 28.

Table 1.6 (a)

Pattern of Ordinary Expenditure of Municipal Authorities in Larger States, 1960-61

(In Percentage)

Larger States	General Administration and Collection of Revenue	Public Health	Public Safety	Education	Roads	Loan Repayments	Others	Total
1. Andhra Pradesh	15.3	41.4	7.2	22.3	10.7	2.1	1.2	100
2. Assam	12.8	56.3	7.3	3.1	5.7	5.9	8.9	100
3. Bihar	6.6	38.8	3.8	23.5	8.9	2.6	15.7	100
4. Gujarat	9.2	24.2	6.9	7.4	33.3	10.9	8.1	100
5. Jammu and Kashmir	13.4	34.5	8.9	—	22.7	13.5	2.0	100
6. Karnataka	2.4	50.7	5.7	12.0	6.1	7.1	16.1	100
7. Kerala	12.1	34.4	23.5	0.6	13.9	4.4	11.1	100
8. Madhya Pradesh	10.3	29.9	10.0	18.2	10.5	1.3	19.7	100
9. Maharashtra	3.7	41.3	6.9	11.3	5.1	16.0	15.7	100
10. Orissa	8.8	36.4	10.2	12.0	23.7	0.8	8.1	100
11. Punjab	23.7	38.8	17.5	8.4	8.7	2.7	0.1	100
12. Rajasthan	24.4	45.6	11.3	3.4	5.3	1.6	8.3	100
13. Tamil Nadu.	9.5	37.9	11.4	19.0	10.3	7.3	4.6	100
14. Uttar Pradesh	13.2	19.0	20.2	16.7	9.2	6.2	15.5	100
15. West Bengal	23.8	33.6	10.6	5.7	5.9	5.0	15.4	100
All India	13.1	32.0	12.5	14.3	12.7	4.5	13.1	100

Source : Zakaria Committee, 1963, pp. 368-9.

Table 1.6 (b)

Pattern of Ordinary Expenditure of Sample Municipal Authorities in Larger States, 1975-76

(In percentage)

Larger States	General Admn. Revenue	Collection of Revenue	Public Health	Public Safety	Medical	Water Supply	Education	Roads	Loan Repayment	Others	Total
1. Andhra Pradesh	7.9	2.0	22.9	3.7	0.1	16.8	18.7	20.9	0.3	6.7	100
2. Assam . . .	16.3	7.8	21.2	9.0	1.5	7.3	0.3	10.2	3.6	22.9	100
3. Bihar . . .	13.7	1.1	29.9	6.9	0.9	3.7	7.4	12.3	13.2	10.8	100
4. Gujarat . . .	5.1	4.2	8.9	2.3	6.6	2.5	10.3	—	10.0	50.3	100
5. Haryana . . .	13.5	0.2	27.0	7.7	5.5	16.2	0.9	3.1	1.7	20.4	100
6. Himachal Pradesh	13.9	14.1	28.5	4.9	0.3	14.2	0.1	3.6	0.8	19.6	100
7. Jammu and Kashmir . . .	26.8	0.3	29.3	3.9	—	—	1.7	—	0.3	37.7	100
8. Karnataka . . .	16.7	—	17.1	8.3	1.85	8.1	1.1	—	6.6	40.3	100
9. Kerala . . .	32.7	1.6	12.2	7.7	11.2	6.2	1.0	7.8	7.6	12.2	100
10. Madhya Pradesh	17.9	11.1	20.6	7.4	1.5	9.4	4.3	4.5	7.1	16.3	100
11. Maharashtra . . .	6.5	5.9	15.9	4.4	13.5	5.1	9.3	12.0	4.0	23.3	100
12. Orissa . . .	12.5	11.2	23.8	8.3	0.9	2.7	12.5	0.1	3.3	24.6	100
13. Punjab . . .	12.6	17.2	28.4	8.9	1.5	9.1	0.6	4.3	8.9	8.5	100
14. Rajasthan . . .	15.2	14.6	48.5	8.4	0.8	1.6	0.7	0.1	2.1	8.0	100
15. Tamil Nadu . . .	15.7	0.2	24.8	4.7	5.8	11.3	14.8	4.5	7.5	10.7	100
16. Uttar Pradesh . . .	8.0	10.9	41.3	5.0	3.3	6.5	2.2	0.4	6.2	16.0	100
17. West Bengal . . .	27.8	2.7	21.9	5.4	2.3	6.8	7.2	2.4	0.6	22.9	100
All India . . .	10.8	5.4	21.3	4.8	7.3	6.2	10.0	7.0	5.3	21.8	100

Source :—Finance Commission, 1979, pp. 226-32.

Table 1.7

Extent of State Control Over Municipal Expenditure

State	Expenditure Limit beyond which State approval is needed	
	Corporations	Municipalities
1. Tamil Nadu	Exceeding Rs. 500,000	Exceeding Rs. 8,000
2. West Bengal	” ”	” Rs. 25,000 to Rs. 60,000 by the Divisional Commissioner, Rs. 60,000 by the State Government.
3. U.P.	” ”	All road schemes financed out of road grant need sanction of District Magistrates.
4. Karnataka	” Rs. 200,000	Exceeding Rs. 20,000
5. Kerala	” Rs. 100,000	” Rs. 50,000
6. Andhra Pradesh	” Rs. 50,000	” Rs. 15,000 having a Grade II Engineer, Rs. 25,000 and more having a Grade I Engineer.
7. Himachal Pradesh	” Rs. 20,000	N.A.
8. Bihar	For all loan or grant aided schemes	Exceeding Rs. 10,000
9. Maharashtra	Expenditure for primary education	” Rs. 10,000 for A & B classes ” Rs. 5,000 for C Class
10. Gujarat	Nil	” Rs. 1,00,000
11. Haryana	—	” Rs. 25,000 need technical sanction and Rs. 50,000 and more need administrative sanction.
12. Orissa	—	” Rs. 20,000
13. Punjab	N.A.	Exceeding Rs. 50,000 for technical sanction and Rs. 1,00,000 and over need administrative sanction.
14. Rajasthan	—	Exceeding Rs. 5,000.

Appendix Table 1.1

State of Municipal Finances in India

State	No. of Local bodies	Growth Rate %		Percentage Capital Expenditure 1979-80	Ordinary Income Percentage Share (1979-80)			Share in Taxes		
		74-75 to 79-80			Tax	Non-Tax	Grants	Property Tax	Oct-roi	Others
		Ordinary Income	Ordinary Expend.							
1. Andhra Pradesh	75	83	170	31	50	9	41	28	—	72
2. Assam	20	199	139	32	35	11	54	48	—	52
3. Bihar	68	37	16	30	50	10	40	35	—	65
4. Gujarat	52	108	89	23	75	7	18	25	67	8
5. Haryana	61	102	105	29	79	15	6	15	69	16
6. Himachal Pradesh	15	48	45	31	78	12	10	11	64	25
7. Jammu & Kashmir]	3	504	248	1	34	6	60	—	95	4
8. Kerala	46	91	89	34	70	17	13	40	—	60
9. Karnataka	228	98	20	39	34	11	55	49	—	51
10. Madhya Pradesh	164	96	80	32	26	10	64	23	—	77
11. Maharashtra	128	101	69	26	84	6	10	19	48	33
12. Manipur	2	516	138	54	30	70	—	—	—	100
13. Meghalaya	1	30	6	51	74	7	19	27	—	73
14. Orissa	27	50	85	16	47	12	41	11	51	38
15. Punjab	63	141	86	39	89	8	3	13	71	16
16. Rajasthan	192	162	141	26	82	8	10	4	90	6
17. Sikkim	1	—	—	—	4	6	90	1	—	99
18. Tamil Nadu	110	87	54	28	59	13	28	29	—	71
19. Uttar Pradesh	174	71	70	13	65	12	23	16	58	26
20. West Bengal	91	46	66	12	40	10	50	70	—	30
21. Delhi	2	136	109	17	50	18	23	39	27	34
22. Goa, Daman & Diu	9	179	94	19	39	27	38	50	20	30
23. Pondicherry	1	37	277	13	87	10	3	52	27	21
Total	1533	96	78	25	65	10	25	25	40	3⁵

Source :—National Institute of Urban Affairs.

A Study of the Financial Resources of Urban Local Bodies in India and the Level of Services Provided, New Delhi 1983.

Appendix Table 1.2

State-Wise Per Capita Incomes and Expenditures (1974-75 and 1979-80)

(In constant 1970-71 prices)

State	Per-capita Ordinary Income		Per-capita Ordinary Expenditure (1979-80)						
	Total		Genl. Admn.	Public Health	Public Works	Street Lighting	Water Supplies/ Drainage	Others	
	79-80	74-75							
1. Andhra Pradesh . . .	30	29	25	3	6	6	1	3	6
2. Assam . . .	11	10	9	2	2	1	1	1	2
3. Bihar . . .	7	9	8	1	3	1	3	1	1.7
4. Gujarat . . .	55	45	55	9	11	4	2	6	23
5. Haryana . . .	24	23	28	6	8	2	2	5	5
6. Himachal Pradesh . . .	47	50	43	11	13	6	2	8	3
7. Jammu & Kashmir . . .	28	16	21	4	6	11	—	—	—
8. Kerala . . .	24	18	17	4	4	3	2	1	3
9. Karnataka . . .	23	20	16	5	2	2	1	1	5
10. Madhya Pradesh . . .	23	21	20	4	5	4	1	4	2
11. Maharashtra . . .	76	65	61	5	14	12	3	12	15
12. Manipur . . .	1	4	1	1	—	—	—	—	—
13. Meghalaya . . .	11	12	8	1	2	2	5	5	2
14. Orissa . . .	21	25	25	3	4	4	1	2	11
15. Punjab . . .	37	26	25	6	6	4	2	4	3
16. Rajasthan . . .	16	11	14	4	6	1	1	4	1.6
17. Sikkim . . .	49	—	49	9	6	10	—	13	1
18. Tamil Nadu . . .	27	26	23	3	6	3	2	2	7
19. Uttar Pradesh . . .	19	19	19	3	7	3	1	2	3
20. West Bengal . . .	25	27	25	2	3	3	1	8	8
21. Delhi . . .	68	54	74	3	4	7	17	2	41
22. Goa, Daman & Diu . . .	23	13	17	5	3	4	2	3	2.7
23. Pondicherry . . .	12	13	16	7	—	6	2	1	—

SOURCE :—National Institute of Urban Affairs.

A Study of the Financial Resources of Urban Local Bodies in India and the Level of Services Provided, New Delhi 1983.

II. PROJECTIONS OF INVESTMENT REQUIREMENTS IN URBAN INFRASTRUCTURE

Introduction

2.1 The task undertaken in this chapter is to make some rough projections for investment requirements in urban infrastructure over the period 1981–2001. Some preliminary remarks on the *definition* of “urban infrastructure” are in order. There are at least three possible connotations of the term :

- (i) Investment in urban infrastructure of the sort traditionally carried out by municipalities, that is, water supply, sanitation, drainage, sewerage, street lighting, public health, roads/buildings, etc. (In recent years, in India, the shortage of local government revenues has induced State Governments and Development Authorities to step in to undertake some of these investments as well);
- (ii) Investment in urban infrastructure by the public sector (that is, local bodies, State Governments, Central Government and all their various public organs). In India, this wider definition would encompass investment in urban power supply, transportation (public buses, local trains, trams, etc.) and public housing and telecommunications; and
- (iii) Investment in urban infrastructure by *everyone*, public and private. The principal additional item brought into the net by this definition is private investment in housing, of course, investment in private vehicles, standby electricity generators, etc., would also get included.

2.2 This exercise is limited to the first and the narrowest definition, less for reasons of economic principle and more by conventions of finance and planning.

2.3 The scope of this chapter is as follows. The next section sketches the basic approach to estimating investment requirements, outlines two alternative methods, discusses some of the principal weaknesses of the approach, and poses a couple of special problems which need to be handled in the actual estimation exercises. This is followed by a detailed description of the application of one of the methods, Method A. These results are then “cross-checked” through the application of an alternative Method B. Drawing on some of the background work for this paper, some ways indicated by which urban infrastructure investment requirements may be reduced. The final section presents conclusions and recommendations. Details of data sources and methods are given in the Appendices.

Methods of Estimating Investment Requirements

The Basic Approach

2.4 The basic approach consists in projecting increments to urban population between 1981 and 2001 and multiplying these investments by estimates of per capita investment cost (PCIC) “norms” to obtain estimates of additional urban infrastructure necessary. It is worth emphasizing at the outset that the quality of the investment projections in this chapter can be no better than the quality of the principal ingredients, namely, the underlying population projections and the estimates of PCICs. The population projections are given in Appendix 2.3. The underlying sources for the PCIC estimates are given in Appendix 2.1; but a few preliminary remarks are in order at this stage.

2.5 The cost of urban infrastructure depends on an enormous variety of factors. Some of these are in the nature of “givens” and include the topography and geology of the relevant urban locale, the past history of urban infrastructure development, the accessibility of water, the size of urban communities and so forth. Other factors fall more in the domain of “policy options” and include considerations such as the lay-out and density of new residential developments, the standards and quality of infrastructure services provided (e.g. low-cost sanitation vs. waterborne sewerage), and the extent

to which the relevant urban population is "covered" by alternative standards of infrastructures services. Finally, some other determinants of urban infrastructure costs, including the extent and nature of industrial development, cannot be neatly categorized as a "given" or as a "policy option".

2.6 In view of the great variety of factors which influence the PCICs for urban infrastructure, any estimate which is applied nation-wide has to be regarded as an extremely crude average. To cope with this underlying problem we have adopted two partial "solutions". First, we have attempted to estimate PCIC norms separately for each of the principal categories of urban infrastructure service, and secondly, whenever possible we have indicated a *range* for the PCIC estimate, rather than committing ourselves to a single number. Thus, our primary method, Method A, first involves identifying a set of "core" urban infrastructural services for which investment requirements have to be estimated.

The "core" services identified are :

- (i) Water Supply
- (ii) Sewerage/Sanitation
- (iii) Solid Waste Disposal
- (iv) Storm Water Drainage
- (v) Roads
- (vi) Streetlighting
- (vii) Land Preparation

These "core" functions constitute minimum requirements for urban development (housing excepted). Together, they place a heavy draft on investible resources. By contrast, services in the "optional" category such as education, public health and public safety are more manpower-intensive, with proportionately greater requirements for recurrent (or "revenue") expenditure; in any case, we make no attempt to estimate investment requirements for these latter services.

2.7 Investment costs for these services have been worked out from actual projects as far as possible. Since the data are sketchy various judgements have been employed to arrive at per capita investment norms. Details on these calculations are given later but, in principle, each project is designed to extend services to a target population and hence per capita norms can be worked out.

2.8 Using information on each individual "core" service, we aggregate total additional requirements for urban infrastructure. To cross-check the estimate thus obtained, we use independent information on "total" *investment cost per acre* of new urban development. In any housing project, the 'land development' cost characteristically includes the on-site costs of all infrastructures along with land preparation costs. Together with information on densities, this enables the amputation of equivalent PCICs. Hence, there is a cross check for the total investment requirements obtained from Method A.

Some Special Problems

2.9. Both the methods outlined above yield estimates, however, crude, of *additional investment requirements* pertaining to projected increments in urban population. They do not make any allowance for the "backlog" of unmet infrastructure needs in the base year. Nor do they allow for replacement capital requirements of urban infrastructure. Both problems have to be allowed for in our estimates.

Application of Method A

2.10 Initially, the intention was to estimate, for each "core" urban service, a set of PCICs which varied with technology adopted (for the service) and city size. It was expected that PCICs would vary systematically with city size because of factors such as scale economies and design standards. In practice, the information that was collected did not permit the estimation of a full matrix of PCICs for each "core" service. Instead, as *Table 2.1* shows, it has been necessary to make do with a "High" and

"Low" estimate of the PCICs for each service. In the case of water supply and sewerage/sanitation (two of the most expensive service categories), PCICs for alternative technologies are also presented.

2.11 The "High" and "Low" estimates presented in *Table 2.1* are not associated with city size. Two opposing factors seemed to be at work to reduce the strength of this association. On the one hand, a bias in favour of higher design standards and quality of service would suggest higher PCICs for larger cities. On the other hand, the economies of scale attributable to larger and denser service populations would work to reduce the PCICs in larger cities. This lack of association between city size and per capita cost of urban development is also supported by the information on "total" urban development costs, used in Method B, to cross-check the results obtained through Method A.

Table 2.1

Estimates of Per Capita Investment Cost Norms (1980 Rupees)

	<i>Low</i>	<i>High</i>
<i>1. Water Supply</i>		
(a) Surface system	245	350
(b) Ground water	200	300
<i>2. Sewerage/Sanitation</i>		
(a) Water-borne system with treatment plant	350	500
(b) Septic tank	200	225
(c) Pit latrines	120	150
<hr/>		
A. Sub-total for 1-2 (range)	320, 400, 595	450, 525, 850
<hr/>		
3. Solid Waste Disposal	25	40
4. Storm Water Drainage	75	100
5. Roads	200	300
6. Streetlighting	60	60
7. Land Preparation	60	100
<hr/>		
B. Sub-total for 3-7	420	600
<hr/>		
Grand Total (range)	740, 820, 1015	1050, 1125, 1450
<hr/>		

NOTE: Appendix I presents the background information underlying these PCIC norms. To avoid any impression of spurious accuracy, the estimates have been rounded (upwards) with some exercise of judgement.

2.12. While the details on the sources and data for computing the PCICs are presented in Appendix 2.1, a few summary remarks are appropriate here. The PCICs for water supply and sewerage/sanitation are based on data contained in the Master Plan documents for the International Drinking Water and Sanitation Decade. The data for this exercise have been compiled by each state and union territory in accordance with guidelines laid down by the CPHEEO¹, Ministry of Works and Housing, Government of India. Since the data are based on project-level information and they cover all States and Union Territories, they were deemed to be the most authoritative source of investment cost information on these sectors for the purposes of our projections. Appendix 2.1, Table A 2.4 give a sample (for Maharashtra) of how the information is available for each State and Union Territory. In Appendix 2.1, Tables A 2.1 and A 2.2, such information has been combined to compute all India averages, and it is these averages which constitute the proximate basis for the PCIC estimates given in Table 2.1 (To avoid conveying any spurious impression of accuracy, all PCICs in Table 2.1 have been "rounded" to the nearest 10 or 5). One notable weakness of the information described above is that the data do not always allow for the costs of providing water and sewerage/sanitation for non-residential uses. To that extent, the PCICs may be regarded as under-estimates, though it has not been found possible to give any reliable idea of the degree of under-estimation.

2.13 Next to water supply and sewerage/sanitation, the most expensive "core" urban services turns out to be roads. For this, data compiled by the National Institute of Urban Affairs were used (and shown in Appendix 2.1, Table A2.3), to estimate the road length "needed", or associated with, each individual in urban areas. The nation-wide 'average' turned out to be 0.84 metres per capita, which was rounded up in the estimate to be 1.0 metre and costed at Rs. 200 ("Low") to Rs. 300 ("High").

2.14 For the remaining "core" services—drainage, solid waste disposal, streetlighting and land preparation—a variety of project-based information was used, including cost estimates from World Bank urban development projects as well as information from HUDCO (see Tables A2.9, A2.10 and A2.11 in Appendix 2.1). One important omission in the PCICs presented in Table 2.1 relates to the cost of land acquisition for residential development. Such costs vary so greatly across locales that it was not considered appropriate to cite any figure as a representative average. Hence, the total PCIC estimates in Table 2.1 are biased downwards by this exclusion.

2.15 The total PCIC estimates from Table 2.1 and the projections of increments to urban population over the period 1981–2001 constitute the basic ingredients for the estimates of investment requirements for urban infrastructure. In addition, allowances have been made for the "backlog" problem and for depreciation/replacement of urban infrastructure.

The "Backlog" Problem

2.16 Information compiled by the National Institute of Urban Affairs (NIUA) indicates that in 1981, 24 percent of India's urban population did not receive water from an organized urban source, 22 percent of the population was not served by proper roads and 31 percent did not have access to sanitation facilities (see Tables A2.5, A2.6, and A2.7). On this basis, it is assumed that, on average, 25 percent of India's urban population did not have access to "core" urban services in 1981. This indicates a "backlog" population of about 40 million people, since the 1981 urban population stood at 160 million. Of course, this single number marks a tremendous diversity in the quality of urban services received by those who were deemed to have received services. But it does provide a rough and ready starting point for gauging the dimensions of resource requirements stemming from the "backlog" problem. The rate at which the backlog is to be eliminated is a matter for policy decision. For estimation purposes it is suggested that 10 million of the backlog is to be eliminated in 1986–91 and 15 million each in the next two quinquennia.

Depreciation

2.17 In the projection of investment requirements, provision has to be made for replacement of current and future capital stock. The annual rate of depreciation is estimated at 2.5 percent, on the basis of varying assumptions regarding the life of different forms of urban infrastructure assets (Appendix Table A 2.12 details these assumptions). This rate of depreciation is applied to all future flows of investment in urban infrastructure. It is also to be applied to the existing stock of urban infrastructure capital on the assumption that the age-structure of this stock is such that replacement requirements coincide with depreciation provisions.

1. Central Public Health and Environmental Engineering Organisation.

2.18 Lacking direct estimates of the capital stock in urban infrastructure, the following assumptions are utilised. According to the NIUA data, about 75 percent of the 1981 urban population, that is, about 120 million urban dwellers, received urban services. What was the stock of capital which generated these services? From Table 2.1 there is a variety of total PCICs, ranging from Rs 740 to Rs. 1450. Eschewing misplaced refinements, Rs. 1,100 is taken as an approximate "half-way figure." On this basis the existing stock of urban infrastructure capital (at replacement cost) was about Rs. 13,200 crores, in 1981.

2.19. The main ingredients for rough projections of investment requirements for 1981-2001 have now been obtained. The results are summarized in Table 2.2 for two assumptions about total PCIC, namely, the lowest figure of Rs. 740, and the highest figure of Rs. 1,450. These projections call for some comment. First, investment requirements estimated for the period 1981-86, though large, are not in a wholly different order of magnitude from the Sixth Five Year Plan allocations for the period 1980-85 in regard to the corresponding sectors. The total in the Sixth Plan (in 1979-80 prices) is about Rs. 3500 crores,¹ which compares with a "Low" of Rs. 4360 crores and a "High" of Rs. 6960 crores in the estimates for 1981-86.

2.20 Second, the estimates suggest that the allocations for urban infrastructure will have to be stepped up substantially in the Seventh Plan and beyond, especially if a serious effort is to be undertaken to tackle the "backlog" problem. Third, it is worth noting that the percentage difference between the "Low" and "High" estimates increases significantly, from about 60 percent in 1981-86 to nearly 70 in 1996-2001. The reason for this is simply the higher replacement costs associated with the higher investments in the "High and Low" totals.² Indeed, the estimates point up, in general, the sizeable dimensions of capital replacement requirements; in the final quinquennium, 1996-2001; they account for over 40 percent of total investment requirements estimated under the High Cost assumption, and for over 50 percent in the Low Cost alternative.

Table 2.2

Investment Requirements in Urban Infrastructure, 1981-2001, Rough Projections (In 1980 Rs. Crores)

	1981-86		1986-91		1991-96		1996-2001	
1. Projected increment to Urban Population (millions)	34		38		39		40	
2. With allowance for "Backlog" elimination (millions)	34		48		54		55	
3. Investment Requirements from :	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
(a) Increment to Urban Population	2516	4930	3552	6960	3996	7830	4070	7975
(b) Capital Replacement Associated with (a)	194	380	819	1406	1723	2725	2532	4262
(c) Replacement of 1981 Capital Stock	1650	1650	1650	1650	1650	1650	1650	1650
TOTAL :	4360	6960	6021	10016	7369	12205	8252	13887

- Notes: (i) 1981 urban capital stock, valued at 1980 price, is estimated at Rs. 13,200 crores.
(ii) Average rate of depreciation of urban capital stock is estimated at 2.5 per cent per year.
(iii) The "Low" PCIC is Rs. 740 and the "High" PCIC is Rs. 1,450.
(iv) The "Backlog" of 40 million is cleared at the rate of 10 million in 1986-91 and 15 million each in the subsequent two quinquennia.
(v) See Appendix Table A 2.15 for population projections.

1. This includes the allocations under the heads of urban water supply, urban development and for industrial townships.
2. The estimates of replacement cost in Table 2.1 assume that if the Low (High) estimates for a quinquennium are pertinent, then investment, in previous quinquennia were also at Low (High) costs.

2.21 The importance of adequate maintenance of existing capital assets therefore becomes even more pronounced for good maintenance can have the effect of prolonging asset life. It may be noted here that the United States is now facing a massive problem of replacing old infrastructure which was put in place in earlier years in their period of rapid urbanisation and there has not been adequate provision for these replacement investments with the result that instances of breakdown in roads, bridges, etc. are becoming more frequent. Investment in urban infrastructure is therefore a continuous process, starting with the period of rapid urbanisation and then continuing apace.

2.22 Finally, the weaknesses of these estimates should not be forgotten. Aside from the sheer "roughness" of the estimates, these projections are biased downwards to the extent that they ignore urban infrastructure needs of industrial and commercial activity, especially with respect to water supply. They are also downward biased because of the exclusion of any estimate for land acquisition costs for residential development. Further, it is worth repeating that only the "core" urban functions have been considered; the "optional" items such as education, health and recreation facilities have been omitted from the analysis.

2.23 As remarked earlier, it had been expected that the costs of investments for urban infrastructure would be lower in the smaller cities. As far as could be ascertained, this is not the case from the information available from existing projects under execution. Hence, the calculation of requirements of urban investment by class size of town is a mechanical one merely allocating the total investment requirements found in Table 2.2 according to existing population in different class sizes and the expected increments in population in the future. Table 2.3 gives the investment requirements based on the median figures obtained in Table 2.1, for the period 1986-91. The median figure of Rs. 8000 crores for 1986-91 is taken rather than the minimum of about Rs 6000 crores because it is not considered feasible to invest the minimum in all places. For example, even though the Task Force discourages the installation of water borne sewerage system in general on grounds of economy, it is clear that this is necessary in the more densely populated areas of cities where it would not be possible to make do with pit latrines. Similarly, many cities in dry regions and others which are distant from water sources would not be able to instal water supply at the low end of the cost range. Hence, it is considered prudent to take the median figure of Rs. 8000 crores as the total investment requirement for the 1986-91 period.

Table 2.3

Investment Requirements in Urban Infrastructure by Class Size of Towns (1986-91), Rough Projections

(In 1980 Rs. crores)

CLASS SIZE OF TOWN					
Investment requirements from	Total	Metropolitan	I	II + III	IV + V + VI
a. Increment to urban population	5250	1620	2200	1070	360
b. Capital replacement associated with (a)	1100	340	460	225	75
c. Replacement of 1981 capital stock	1650	440	550	435	225
Total :	8000	2400	3210	1730	660
(percent)	100	30	40	22	8

Notes - 1. Increment to population from Appendix Table A 2.16

2. 1986-91 median total investment taken as Rs. 8000 crores from Table 2.2 (a), (b), (c) derived in Table 2.1.

2.24 Table 2.3 shows that about 30 percent of the infrastructure investments should go to the metropolitan cities, about 40 percent to the remaining Class I cities with population between 10,000 and 1 million and about 30 percent to the small and medium towns. It may be observed that about 20 percent of the investment should be devoted to merely replacing existing capital stock.

A Cross-check with Method B

2.25 Method B, it will be recalled, utilises information on "total" investment costs per acre of new urban development. One set of data (reported on here) comes from the Town and Country Planning Organisation (TCPO), which, in turn, obtained the information from their counterpart organisations in each of the States (see Appendix 2.1 Table A2.13). The data reflect the cost experience of urban development projects carried out in Medium and Small Towns in each of the States. The TCPO data are also supported by information on land development costs compiled by HUDCO and AIHDA, based on housing schemes supported by HUDCO¹.

2.26 With one important exception, and one less important one, the "total" costs pertain to the provision of the "core" functions analysed in Method A. The important exception relates to sewerage and sanitation. The less important exclusion in the TCPO data pertain to solid waste disposal. Furthermore, the TCPO data only include *on-site* development costs; *off-site* costs are excluded.

2.27 The TCPO data were from the project reports from about 100 of the over 200 towns included in the scheme for Integrated Development of Small and Medium Towns. The summary data from these projects are reported in Appendix Table A2.13. It is of interest to note that the range of total land development costs per hectare is from a minimum of Rs. 1.52 lakhs (Orissa) to Rs. 5.80 lakhs in Kerala. Apart from the outliers (Kerala, Nagaland and West Bengal), most of the states are clustered around Rs. 2. to Rs. 3 lakhs per hectare for land development costs. This translates to Rs. 20 to Rs. 30 per square metre (gross) or Rs. 35 to Rs. 50 per square metre of saleable area (assuming 60 per cent of land in any residential scheme is saleable). Similar data were obtained from a study of recent HUDCO residential

Table 2.4

State-wise Cost of Land Development

(1982 prices Rs. lakhs/hectare)

State	IDSMT Projects	HUDCO Projects
Andhra Pradesh	1.81	1.76
Assam	1.97	2.27
Bihar	2.03	1.92
Gujarat	1.61	2.10
Haryana	2.73	5.79
Himachal Pradesh	—	2.67
Jammu and Kashmir	—	2.14
Kerala	5.86	2.89
Karnataka	—	1.52
Madhya Pradesh	1.69	2.05
Maharashtra	1.64	2.04
Orissa	1.52	—
Punjab	3.49	3.10
Rajasthan	2.27	2.26
Tamilnadu	—	1.54
Uttar Pradesh	3.12	2.03
West Bengal	4.11	2.11
Delhi	—	4.95

1. See All India Housing Development Association (AIHDA), "Analysis of Land Development Costs in HUDCO Projects" Urban Development Task Force Paper F. 7 1983.

Notes: 1. Integrated Development of Small and Medium Towns (IDSMT), see Appendix Table A 2.13.

2. From AIHDA "Analysis of Land Development Costs in HUDCO Projects" Urban Development Task Force Report F.7, Planning Commission 1983. See Appendix Table A 2.14.

Table 2.5

Per Capita Investment Cost of Urban Development—A Comparison of Methods A & B

(In Rs. 1982 prices)

	Sites and services	Residential Schemes
1. Cost per hectare (on-site)	150,000	215,000
2. Cost per capita (on site) :		
(i) Density 400/hectare	375	538
(ii) Density 600/hectare	250	358
3. Estimated Off-site (50% of on-site):		
(i) Density 400/hectare	188	269
(ii) Density 600/hectare	125	179
4. Total :		
(i) Density 400/hectare	563	807
(ii) Density 600/hectare	375	537
<i>Method A</i>		
	<i>Low</i>	<i>High</i>
5. "Total" PCIC (excluding Sewerage/sanitation and Solid waste disposal)	674	1,071

Note : 1 The inflation factor used for converting 1980 prices to 1982 prices is 1.26. This represents inflation in the construction price index, according to the TCPO information (see Appendix 2.1, Table A 2.13)

Source : Appendix 2.1, Table A 2.13 for Line 1.

development projects in different states in India. These projects covered a large number of cities of all sizes and were also a cross section of high income (HIG) middle income (MIG), low income (LIG) and economically weaker sections (EWS) housing projects under the normal HUDCO guidelines. It is interesting that these figures are broadly consistent with the *Rs. 2 lakhs to Rs. 3 lakh per hectare* land development costs for residential development (apart from some outliers like Delhi and Haryana who are using higher standards).

2.28 For comparison with the total PCICs from Method A, four main adjustments have to be carried out: first, the sanitation/sewerage costs and the cost of solid wastes disposal have to be excluded from the Method A estimates of total PCIC; second, the TCPO data have to be transformed from a *per hectare* to a per capita basis (using certain density assumptions); third, the TCPO costs have to be inflated by a provision for off-site costs; and finally, the Method A estimates have to be adjusted from 1930 to 1982 prices. Table 2.5 summarizes the results obtained after these adjustments have been carried out.

2.29 The results are encouraging. Comparing Method B estimates (line 4) with the Method A estimates (line 5), it is clear that both sets of estimates are within a plausible range of magnitude.

Possibilities for Reducing Investment Requirements

2.30 If the investment requirements outlined in Table 2.2, especially the "High" ones, appear somewhat daunting, the natural question that arises is what the possibilities are for reducing them. This analysis does not permit an adequate response to this question. However, it does seem that a systematic search for economies could yield substantial results. A glance at the PCICs in Table 2.1 suggests that

sanitation/sewerage offers substantial economies through the use of cheaper technologies. The per capita cost difference between pit latrines and waterborne sewerage is estimated to range from Rs. 230 to Rs. 350. The latter figure accounts for about *half* the difference between the lowest total PCIC of Rs. 740 and the highest of Rs. 1450. Put differently, if all further expansion of liquid waste disposal needs were met through pitlatrines, then the "High" figure in Table 2 for total urban infrastructure requirements over the period 1981-2001 could be reduced by over Rs. 7,000 crores (1980 prices).

2.31 Such an illustration of economies to be achieved through the use of low-cost technologies needs to be seriously qualified. First, there are major technological and health-related barriers to any wholesale adoption of pit-latrines. Second, even where these constraints are absent, social acceptability can be a serious obstacle. Third, and this may not be true for the low-cost sanitation case, the adoption of technologies which are low-cost in the short-run may not prove quite so economic in the long run, either because of high operation/maintenance costs or because of much more rapid need for replacement.

2.32 Nevertheless, the possibilities for economy are often very real and need to be sought with vigour. A recent report by the All India Housing Development Association, entitled "Norms of Land Development Costs"¹ points to numerous ways in which appropriate choice of physical layout of residential developments and design standards of services provided can achieve significant economies. Its principal conclusions are :

- (i) Geometric patterns of land sub-division substantially affect the cost of land development;
- (ii) Standards of land development followed provide enormous scope for economies; and
- (iii) Physical parameters such as plot ratio (depth divided by width) and module ratio substantially affect the design and cost of the utility network. With proper decisions, the cost of land development can be reduced by as much as 60%.

2.33 The message is simple. Urbanization is projected to proceed apace. The requirements for urban infrastructure are going to be large, and the need to search for all genuine economies is commensurately urgent.

Conclusions and Recommendations

2.34 Before the conclusions and recommendations are summarised, some of the qualifications that are associated with this analysis should be emphasized. First, the level of aggregation at which this exercise has been carried out is such that it does not do justice to the enormous variety of physical, technical and socio-economic conditions under which urban infrastructure will have to be provided in India in the coming decades. Second, given the limited time at our disposal and the difficulty of compiling systematic, comparable data, on an all-India basis, we had to rely, all too frequently on piecemeal information from particular projects and the judgments of qualified experts. Third, the exercise largely ignores issues relating to the *quality* of urban services. Fourth, the exploration of economies that may be achieved through adoption of appropriate technologies and design standards (where such choice is technically feasible) has been extremely rudimentary. Finally, the estimates do not allow adequately for infrastructure needs stemming from industrial and commercial development in urban areas.

2.35 Notwithstanding these limitations, the Task Force feels that these estimates provide a reasonable basis for gauging the order of magnitude of investment requirements in urban infrastructure. Table 2.6 below summarizes the estimates for the period 1981-2001.

Table 2.6

Investment Requirements in Urban Infrastructure—Summary (1980 Rs. crores)

1981-86		1986-91		1991-1996		1996-2001	
Low	High	Low	High	Low	High	Low	High
4360	6960	6021	10016	7359	12205	8252	13887

1. AIHDA, "Norms of Land Development Costs", Urban Development Task Force Report F.6 Planning Commission 1983
 Note : See Table 2.2 for details.

2.36 It can be seen at a glance that the range between the "Low" and the "High" estimates is quite large. This is so for two reasons. First, there is uncertainty about the average per capita costs of urban infrastructure investment. Second, the divergence is also attributable to the cost differences associated with different technologies for providing urban services.

2.37 These two reasons for the wide divergence between the "Low" and "High" costs lead to two of the principal recommendations of this paper. First, the Task Force is convinced that there is enough project-level information scattered around to warrant a substantial and systematic research effort aimed at reducing the uncertainty about the investment costs of urban infrastructure. This is necessary to provide a firmer basis for planning allocations of investment for urban infrastructure sectors. Second, it is clear, even on the basis of readily accessible information, that there is very considerable scope for seeking economies in urban infrastructure investment through choice of appropriate technologies and design standards. While such economies seem most promising in the area of sewerage/sanitation, they may also be sought in regard to all the other "core" services. In view of the massive requirements for urban infrastructure investment, even relatively small percentage savings in costs can lead to the saving of hundreds of crores over a five year plan period. A third recommendation follows from the high estimates of replacement investment. Urban infrastructure is expensive. It has to be properly maintained and replaced on time if the full benefits from such expensive social investments are to be reaped.

APPENDIX A 2.1

**SOURCES FOR ESTIMATES OF PER CAPITA INVESTMENT
COSTS OF URBAN INFRASTRUCTURE**

Table A 2.1

Unit (Per Capita) Costs for Urban Water Supply: Summary Table
(All India Average)

In Rs. at 1980 Price

Type of Technology	City Size by Population		
	More than one lakh	Between 50,000 to 100,000	Less than 50,000
1. Surface System (Dams)			
(a) Weighted Average	270 (7)	269 (4)	268 (4)
(b) Simple Average	299 (11)	276 (9)	247 (10)
2. Surface System (Rivers)			
(a) Weighted Average	246 (7)	262 (5)	259 (6)
(b) Simple Average	304 (9)	262 (8)	260 (10)
3. Ground Water (Hard Rock)			
(a) Weighted Average	NC	NC	NC
(b) Simple Average	248 (6)	228 (6)	221 (10)
4. Ground Water (Others)			
(a) Weighted Average	298 (5)	198 (6)	279 (6)
(b) Simple Average	244 (10)	248 (9)	243 (9)

Note : (i) Figures in Parenthes is indicate the sample size i.e. the number of the States on the basis of which the relevant averages were worked out.

(ii) NC—Not Computed due to non-availability of adequate data.

(iii) Weighted average was obtained by using total urban population (in 1981) not covered with water supply.

Source : Computed on the basis of the data contained in the International Drinking Water and Sanitation Master Plan Document 1981—1991 (various States and Union Territories, CPHEEO, Ministry of Works and Housing, Government of India, New Delhi.)

Table A 2.2

Unit (Per Capita) Costs for Urban Sanitation: Summary Table
(All India Average)

(In Rs. at 1980 Prices)

Type of Technology	City Size by Population		
	More than one lakh	Between 50,000 to 100,000	Less than 50,000
1. Sewerage System			
(a) Weighted Average	312 (10)	NC	NC
(b) Simple Average	331 (14)	334 (4)	313 (4)
2. Sewerage Treatment (Plant)			
(a) Weighted Average	51 (10)	NC	NC
(b) Simple Average	49 (13)	167 (14)	98 (14)
3. Septic Tank (Household)			
(a) Weighted Average	182 (7)	NC	NC
(b) Simple Average	203 (10)	225 (10)	226 (9)
4. Pit Latrine			
(a) Weighted Average	120 (6)	144 (f)	134 (8)
(b) Simple Average	132 (11)	141 (8)	128 (9)

Note : (i) Figures in Parenthesis indicate the sample size i.e. the number of the States on the basis of which the relevant averages were worked out.

(ii) NC—Not Computed due to non-availability of data.

(iii) Weighted average was obtained by using total urban population (in 1981) not covered with sanitation.

Source : Computed on the basis of the data contained in International Drinking Water and Sanitation Master Plan Document 1981-1991 (various States and Union Territories), CPHEEO, Ministry of Works and Housing, Government of India, New Delhi.

Table A 2.3

State-wise and City Class Size-wise Per Capita Road Length

(In metres)

Major States	City Size					
	MG	Class I	Class II	Class III	Class IV	All Classes
1. Andhra Pradesh . . . . .	.52	.79	1.19	1.18	1.98	.87
2. Bihar . . . . .	..	.34	.56	.69	..	.39
3. Gujarat . . . . .	.48	.69	.84	1.13	..	.71
4. Haryana . . . . .	..	.79	.61	.67	.69	.73
5. Karnataka . . . . .	..	.72	1.1	.94	1.2	.91
6. Kerala . . . . .	..	.42	2.09	2.06	3.16	1.15
7. Madhya Pradesh . . . . .	..	.33	1.23	2.04	2.14	.92
8. Maharashtra . . . . .	.21	.94	1.18	1.40	1.39	.52
9. Orissa . . . . .	..	.83	1.81	1.59	2.11	1.22
10. Punjab . . . . .	..	.25	.79	.80	1.09	.70
11. Rajasthan . . . . .	.10	1.13	.43	.47	.80	.68
12. Tamil Nadu . . . . .	.06	.56	1.16	1.73	1.50	.74
13. Uttar Pradesh . . . . .	.93	.89	.43	.84	1.10	.90
14. West Bengal . . . . .	.25	.49	.89	1.30	2.14	.66
15. Delhi (UT)	2.2	4.33	..	..	..	2.3
16. All States (Average) (Weighted)	.67	.66	.97	1.18	1.24	.84

Source : Computed from the data obtained from the National Institute of Urban Affairs, New Delhi.

M.G. : Metropolitan Cities.

Table A 2.4

Sample State Table for Unit (per Capita) costs for
Urban Water Supply and Sanitation
(Maharashtra)

(In Rs. at 1980 Prices)

	City Size by Population				
	More than one lakh	Between 50,000 to 100,000	Less than 50,000		
I. A. Water Supply					
(a) Surface System : Dams	295	295	295		
(b) Surface System : Rivers					
(c) Ground Water : Hard Rock . . . . .	..	180	180	
(d) ,, ,, Others					
(e) Of which : Distribution System . . . . .	..	220	220	
(i) Surface Distribution System					
(ii) Ground Water Distribution System					
B. Sanitation					
(a) Sewerage System	310	..	..
(b) Sewerage Treatment Plant	50	..	..
(c) Septic Tank (Household Toilet)	225	225	225		
(d) Pit Latrine	135	135	135		
II. Urban Population Covered					
Urban Water Supply	Actual as of 31-3-81 99.18%	Percentages Target as of 31-3-1981 100%			
Urban Sanitation	40%	90%	1		
III. Population to be served by New Investments during 1981—1991					
1. Urban Water Supply					
(a) Surface Water :	NGG TP	17 3141	24 1312	186 2161	227 6614
(b) Ground Water Hard Rock	NGG TP	— —	— —	— —	— —
(c) Ground Water (Others)	NGG TP	— —	— —	— —	— —
Total :	NGG TP	17 3141	24 1312	186 2161	227 6614
B. Urban Sanitation					
(a) Sewerage (with treatment)	NGG TP	29 7744	— —	— —	29 7744
(b) Septic Tank (household)	NGG TP	29 7744	— —	— —	29 7744
(c) Pit Latrine (Household)	NGG TP	29 795	24 1344	77 1805	130 3942
(d) Pit Latrine (Communal)	NGG TP	29 545	24 544	77 797	130 1886
Total :	NGG TP	29 9084	24 1888	77 2600	130 13572

NGC : Number of Communities to be served.

TP : Total Population in thousand.

Table A 2.5

State-wise and City class size-wise Proportion of Population not covered by Water Supply

Percentages

Major States	City Class Size					All Classes
	Metro-politan	Class I	Class II	Class III	Class IV	
1. Andhra Pradesh.	12.5	15.6	24.2	39.0	17.2	20.6
2. Bihar	—	48.2	48.1	67.2	46.7	51.1
3. Gujarat	5.8	9.8	8.2	15.9	—	8.9
4. Haryana	—	19.0	13.0	18.5	36.1	20.6
5. Karnataka	—	14.3	21.4	23.5	31.7	14.0
6. Kerala	—	23.8	26.4	47.1	32.3	30.6
7. Madhya Pradesh	—	11.6	7.0	9.6	11.0	10.5
8. Maharashtra	7.7	9.4	18.0	19.1	28.8	10.3
9. Orissa	—	9.3	29.3	33.3	39.8	19.7
10. Punjab	—	19.9	20.7	25.2	21.0	18.7
11. Rajasthan	100.0	5.2	16.3	32.3	27.4	31.2
12. Tamil Nadu	100.0	43.4	19.3	22.5	27.6	50.9
13. Uttar Pradesh	43.7	15.1	25.4	33.1	34.6	24.7
14. West Bengal	4.3	30.7	36.8	62.9	71.8	26.8
15. Delhi (UT)	20.6	0.4	—	—	—	19.7
16. All States (Weighted Average)	25.2	21.6	23.5	31.3	29.5	24.3

Source : Compiled from the data obtained from the National Institute of Urban Affairs, New Delhi.

Table A 2.6

Statewise and City Class Sizewise Proportion of Population not covered by Sanitation

Percentages

Major States	City Class Size					
	Metro- politan	Class I	Class II	Class III	Class IV	All Classes
1. Andhra Pradesh	7.4	11.6	17.7	37.7	17.2	16.3
2. Bihar	—	50.2	51.7	45.4	62.0	49.8
3. Gujarat	5.8	33.2	31.2	43.0	—	24.2
4. Haryana	—	14.5	15.7	11.4	17.1	15.0
5. Karnataka	—	22.1	17.7	38.6	52.5	20.5
6. Kerala	—	59.9	57.4	63.2	32.8	60.1
7. Madhya Pradesh	—	15.2	15.9	15.2	19.0	15.7
8. Maharashtra	19.4	43.6	23.1	25.7	37.5	25.3
9. Orissa	—	37.2	54.7	32.1	24.8	37.9
10. Punjab	—	11.1	8.1	13.0	38.0	15.0
11. Rajasthan	0.5	54.0	73.3	69.7	78.2	55.8
12. Tamil Nadu	100.0	48.7	36.5	21.0	21.4	56.3
13. Uttar Pradesh	31.3	30.8	21.3	26.1	20.4	28.0
14. West Bengal	—	38.3	35.8	43.9	37.3	26.7
15. Delhi (UT)	16.0	0.4	—	—	—	15.3
16. All States (Weighted Average)	23.7	35.3	31.4	36.6	44.4	31.2

Source : Compiled from the data obtained from the National Institute of Urban Affairs, New Delhi.

Table A 2.7

State-wise and City Class Size-wise Proportion of Urban Roads not Metaled

Percentages

Major States	City Class Size					All Classes
	Metro-politan	Class I	Class II	Class III	Class IV	
1. Andhra Pradesh	19.8	14.2	19.5	22.8	36.1	18.7
2. Bihar	—	40.5	46.6	44.1	40.7	43.3
3. Gujarat	12.8	24.0	37.8	35.1	—	27.2
4. Haryana	—	25.6	10.6	22.5	29.8	24.4
5. Karnataka	—	5.8	25.0	14.0	18.9	9.7
6. Kerala	—	28.7	39.3	49.6	35.6	42.1
7. Madhya Pradesh	—	10.6	16.9	24.4	31.4	21.1
8. Maharashtra	6.1	44.0	10.3	19.8	20.5	23.3
9. Orissa	—	28.8	47.6	54.6	40.3	42.5
10. Punjab	—	28.0	9.4	23.2	22.8	20.6
11. Rajasthan	25.5	6.3	7.7	19.6	22.4	12.5
12. Tamil Nadu	—	26.0	17.6	18.9	30.3	20.2
13. Uttar Pradesh	5.2	21.3	20.4	24.1	22.8	19.7
14. West Bengal	—	35.9	25.2	36.7	24.6	27.9
15. Delhi (UT)	22.8	—	—	—	—	21.1
16. All States (Weighted Average)	17.7	23.7	24.9	27.4	25.6	22.13

Source : Compiled from the data obtained from the National Institute of Urban Affairs New Delhi.

Table A 2.8

Per Capita Costs of Water Supply among the different Towns/Cities

Town/City	Average Incremental Costs 1980-81 Prices (Rs. Per Cubic Metre)	Per Capita Costs (Rs.)
<i>Gujarat</i>		
Ahmedabad	0.11	37
Rajkot	3.32	1115
Anand	0.43	144
Bhavanagar	0.62	208
Godhra	1.07	359
Jamnagar	0.89	299
Nadiad	1.61	540
<i>Punjab</i>		
Jullundur	0.52	175
Amritsar	0.63	212
Ludhiana	0.51	171
<i>Bombay</i>		
Bombay	2.69	903
Calcutta	0.46	154
Madras	5.74	1927
<i>Rajasthan</i>		
Jaipur	1.39	467
Jodhpur	2.77	930
Kota	1.00	336
Bikaner	2.85	957
<i>Uttar Pradesh (Aggregate)</i>		
Uttar Pradesh (Aggregate)	0.49	165
<i>Tamil Nadu</i>		
Salem	1.69	568
Salem and 11 Towns	2.30	772
Attur	1.47	494
Mecheri	3.34	1122

Table A 2.3 Contd.

Town/City	Average Incremental Costs 1980-81 Prices (Rs. Per Cubic Metre)	Per Capita Costs (Rs.)
<i>Bihar</i>		
Ranchi	1.37	460
Dhanbad and Jhansi	1.79	601

Source : Average Incremental Costs (AICs) of water supply for the different towns were compiled from the various World Bank's Project Appraisal Reports on Water Supply.

Note—: Per Capita Costs of Water Supply were worked out after applying the AICs for the respective towns. The following assumptions were made :

- (a) Per Capita per connection consumption of water—120 liters per day.
- (b) From stand posts per capita consumption of water—40 liters per day.
- (c) Proportion of people availing of water supply through household connection and stand posts is assumed to be 65 and 35 per cent respectively.
- (d) Assumed life of project—40 years.
- (e) A technical note on the derivation of per capita Consumption Costs from AICs is attached as Appendix 2.2.

Table A 2.9*Per Capita Investment Cost—Drainage***A. "HUDCO Estimate"**

The AIHDA report (p.16) entitled "Norms of Land Development Cost" contains some information on drainage costs, which can be used to obtain an estimate.

Cost (on-site) per sq. metre of saleable land	=Rs. 5.33
Ratio of saleable area of total area	=Rs. 0.56
Average density of projects (per hectare)	= 655

Therefore,

$$\text{Per capita on-site cost of drainage} = \frac{5.33 \times 0.56 \times 10000}{655} = \text{Rs. } 45.6$$

Estimated ratio of off-site to on site costs (from Second Madras Urban Development Project, World Bank Appraisal Report, 1980) =62%

Applying this ratio and rounding up to nearest "five", total PCIC for drainage =Rs. 75

Madras Urban Development Project Estimate

Annex 3, p. 1 of the World Bank Appraisal Report gives a summary of site and services costs:

On-site drainage:	=Rs. 47.4 lakhs
Off-site drainage	=Rs. 29.5 lakhs
Total:	=Rs. 76.9 lakhs
<hr/>	
"Population" served	=14900 plots
Assuming 5 persons per plot	=74,500
Therefore, per capita investment cost of drainage	=Rs. 100

Table A. 2.10

Per Capita Investment Costs—Solid Waste Disposal
(1980 Rs.)

	Smaller Urban Locations	Calcutta Corporation
1. Primary Collection (Cycle vans normally; trucks in Calcutta Corporation)	7	10
2. Transportation		
(a) trucks/containers	8—12	22
(b) garages/workshops	5—10	15
3. Disposal (by Sanitary landfill; assumes resaleability of land)	5	5
Total	25—34	52

NOTES: (1) Based on data from Professor Nath, National Institute of Hygiene, Calcutta.

(2) Sanitary landfill is cheapest disposal technology. The *key financial* cost is for land acquisition; but provided financing is available, the costs can be recouped through ultimate resale.

(3) Calcutta Corporation costs are believed to be on the high side (bloated by inefficiency). For a nationally usable figure, a PCIC range of Rs. 25—Rs. 40 may be appropriate.

Table A 2.11*Per Capita Investment Costs—Streetlighting*

The World Bank Appraisal Report for the Calcutta Urban Development Project (November 1977) gives a PCIC of Rs. 33 for "electricity and streetlighting". This seems to exclude off-site costs (likely to low for streetlighting) and is somewhat out-dated.

Allowing for these factors, a PCIC of Rs. 60 in 1980 prices appears to be a reasonable guesstimate.

Table A 2.12*Asset Life and Depreciation of Urban Infrastructure*

1. Following are the assumptions regarding asset life for different kinds of urban infrastructure

Type of Infrastructure/Asset	Life (years)
(a) Water Supply	40
(b) Sewerage and sanitation	40
(c) Drainage	60
(d) Solid waste disposal	10
(e) Roads	10
(f) Land preparation	100
(g) Streetlighting	40

2. We then obtain a weighted average of these different asset lives, using as weights the share of each asset in total Per Capital Investment Cost (High).

On this basis the weighted average turn-out to be 39 years, that is, approximately 40 years.

3. Therefore, on a straightline basis an annual rate of depreciation of 2.5 per cent per annum appears to be appropriate.

Table A. 2.13

Average Land Development and Acquisition Costs for Residential Schemes in Small and Medium Towns

(In lakh Rs. per hectare)

STATES	No of Towns	Average Land Development Cost				Average Land Acquisition Cost	
		Residential Schemes		Sites and Services		Residential Scheme	
		Area Weighted	Popula- tion Weighted	Area Wt.	Pop. Wt.	Area Wt.	Pop. Wt.
1. Andhra Pradesh	10	1.81	1.93	—	—	0.58	0.57
2. Assam	4	1.97	—	—	—	1.36	—
3. Bihar	9	2.03	2.45	2.67	2.67	1.12	0.79
4. Gujarat	10	1.61	1.25	1.40	2.94	2.20	5.81
5. Haryana	3	2.73	2.65	2.50	2.50	0.77	0.78
6. Kerala	5	5.86	4.56	—	—	2.27	4.41
7. Madhya Pradesh	10	1.69	1.57	1.30	1.36	0.36	0.33
8. Maharashtra	10	1.64	1.86	1.35	1.34	0.69	0.75
9. Manipur	2	2.32	2.32	—	—	1.39	1.39
10. Meghalaya	1	—	—	5.63	5.63	0.59	0.59
11. Nagaland	1	4.65	4.65	—	—	0.10	0.10
12. Orissa	5	1.52	1.46	1.77	1.77	2.20	2.09
13. Punjab	4	3.49	3.49	—	—	2.16	2.45
14. Rajasthan	10	2.27	2.44	—	—	0.20	0.25
15. Tamil Nadu	4	—	—	1.15	1.21	0.31	0.49
16. Uttar Pradesh	10	3.12	3.01	—	—	2.54	2.43
17. West Bengal	8	4.11	5.88	5.03	4.78	1.08	0.81
All States (Weighted Average)	96	2.13	2.75	1.49	2.71	0.80	1.59

Table A. 2:14

Average Land Development Cost from HUDCO Residential Schemes

(1982 Prices)

S.No.	State/Union Territory	Cost (Rs. lakhs/Hectare)			Differentiated value for standard cost
		Minimum	Maximum	Standard*	
1.	Andhra Pradesh	1.39	5.88	1.76	1.29
2.	Assam	2.27	2.27	2.27	1.66
3.	Bihar	1.52	4.35	1.92	1.41
4.	Gujarat	1.28	3.58	2.10	1.53
5.	Haryana	0.9	10.68	5.79	4.23
6.	Himachal Pradesh	2.57	2.77	2.67	1.95
7.	Jammu & Kashmir	1.82	2.47	2.14	1.57
8.	Karnataka	0.94	2.56	1.52	1.113
9.	Kerala	2.52	3.24	2.89	2.116
10.	Manipur	1.36	1.36	1.36	1
11.	Maharashtra	1.08	4.04	2.04	1.49
12.	Madhya Pradesh	0.80	3.14	2.05	1.50
13.	Punjab	2.6	3.59	3.1	2.26
14.	Rajasthan	1.31	4.03	2.26	1.65
15.	Tamil Nadu	0.64	2.28	1.535	1.12
16.	Uttar Pradesh	0.85	2.8	2.03	1.485
17.	West Bengal	2.16	2.23	2.19	1.6
18.	Delhi	3.61	8.72	4.95	3.62

*Standard cost is average of all cases excluding minimum and maximum or extreme conditions.

Note :—Cost of land acquisition varies in different states and ranges between Rs. 1/sq. mtrs. to Rs. 20/sq. mtrs. as per HUDCO survey.

Foot Note :

1. (a) Area Weighted Average =

$$\frac{\sum_{i=1}^{nj} (V_{i1} - V_{i2})}{\sum_{i=1}^{nj} V_{i3}}$$

(b) Population Weighted Average =

$$\frac{\sum_{i=1}^{nj} [(V_{i1} - V_{i2}) / V_{i3}]}{\sum_{i=1}^{nj} V_{i4}}$$

Where:

V₁ = Total Cost of land Acquisition and Development of Scheme.

V₂ = Cost of Land Acquisition.

V₃ = Area of Scheme.

V₄ = Population of Town .

i₁, i₂ =

No. of Towns in Jth State.

2. All costs escalated at 1982 prices by the following factors (Construction price index).

1980 × 1.26

1981 × 1.13

1983 × 0.9

3. Land development costs include land preparations, water supply, sanitation, street lighting, drainage, roads and other on-site costs in residential schemes.

APPENDIX A 2.2

A Technical Note on the Methodology of Deriving Per Capita Cost of Water Supply

Appendix A 2.2

A TECHNICAL NOTE ON THE METHODOLOGY OF DERIVING PER CAPITA COST OF WATER SUPPLY

In order to estimate the per capita cost of water supply one of the requirements is to work out the average incremental cost (AIC). Average incremental cost is defined as the total incremental expenditure incurred on per unit of water produced by the project. This is derived as follows :

$$AIC = \frac{P V T C}{P V W}$$

Where

AIC = Average Incremental Cost.

PVTC = Present Value of the total stream of expenditure over the life of the project—usually assumed to be 40 years. This includes operational and maintenance expenditure in addition to the original investment costs.

Symbolically :

$$PVTC = \sum_{t_1=1}^{t_1} \frac{It_1}{(1+r)^{t_1}} + \sum_{t_2=k}^{t_2} \frac{OM_{t_2}}{(1+r)^{t_2}}$$

Where It_1 = Investment Expenditure in time t_1

OM = Operational and Maintenance expenditure from $t_2 = k$ period of the project

r = discount rate.

PVW = Annual stream of the incremental water produced by the Project (in cub. m.) discounted to the present by the same discount rate as above.

Symbolically :

$$PVW = \sum_{t=1}^n \frac{Wt}{(1+r)^t} \quad n = 40 \text{ years}$$

Where

Wt = Total Water produced per year by the project in year t .

r = discount rate.

Per capita cost of providing water can be calculated from AIC if the per capita consumption of water is known. An analysis of the different water supply projects reveals that the population is served by stand posts and through home connection and the rest through other means such as tanks, wells etc. It is also seen that the norm of per capita consumption of water through home connection is in the range of about 50 liters per day to about 140 liters per day. The per capita consumption from stand posts is in the range of about 20 liters per day to 50 liters per day. We have assumed a consumption norm of 120 liters per capita per day through home connections and 40 liters per capita per day for stand posts.

The average per capita consumption of water can be calculated as under :

$$W = W_1 P_1 + W_2 P_2$$

Where W = average per capita water consumption.

W_1 and W_2 are per capita water consumption from house connections and from stand posts respectively.

P_1 and P_2 are weights attached with the two sources of water supply and are represented by the proportion of population making use of house connections and stand posts respectively. We have assumed that $P_1 = 65$ per cent and $P_2 = 35$ per cent.

Now in order to obtain the per capita cost of providing water, average per capita consumption of water (i.e. W) has to be transferred to the present value of the annual per capita consumption of water through the life of the project, here assumed to be 40 years.

Sample Calculation :

We have mentioned above the norms of consumption :

$$\text{i.e. } P_1 = 120 \text{ liters per capita per day.}$$

$$W_1 = 0.65$$

$$P_2 = 40 \text{ liters per capita per day.}$$

$$W_2 = 0.35$$

$$\therefore P_1 W_1 + P_2 W_2 = 120 \times 0.65 + 40 \times 0.35$$

$$\text{or} \qquad \qquad \qquad = 92 \text{ liters per day.}$$

$$\text{i.e. } Wt \qquad \qquad \qquad = 92 \times 365 \text{ liters per year}$$

$$= \frac{92 \times 365}{1000} \text{ cub. m. per year.}$$

$$\therefore PVW = \sum_{t=1}^n \left(\frac{92 \times 365}{(1+r)^t} \right)$$

$$\text{If } r = 10 \text{ per cent}$$

$$\text{and } n = 40 \text{ years}$$

$$PVW = 10.76 Wt$$

$$= 10 Wt \text{ (approx)}$$

$$\therefore PVW = 10 \times 92 \times 365$$

$$= 365 \times 92$$

i.e. Present value of annual per capita consumption of water is 335.8 cub. m.

$$\text{If AIC} = \text{Rs. } 1.50$$

Then, Per capita cost of additional

$$\text{supply} = \text{AIC} \times PVW$$

$$= 1.50 \times 335.8$$

$$= \text{Rs. } 504$$

The same method has been employed to compute the per capita cost of water supply for the different towns/cities as shown in Table 7.

APPENDIX A 2.3

Population Projections

Appendix Table A2.15
Population Projections (1981-2001)

	1981	1986	1991	1996	2001
Total Population (millions)	697	776	856	936	1016
Urban Population (millions)	164	198	236	275	315
Level of Urbanisation (percent)	23.5	25.6	27.5	29.4	31.0

B.	<i>Implied Rates of Population Growth</i>				(per cent per year)
	1981-86	1986-91	1991-96	1996-2001	
Total Population	2.16	1.98	1.81	1.66	
Urban Population	3.84	3.49	3.10	2.75	
Rural Population	1.63	1.44	1.29	1.18	

Notes: (i) Population Variant I - The total population growth rate is made to decline smoothly every year from 2.27% in the initial year 1981-82 to 1.6% in 2000-2001, the terminal year.

(ii) Urban Rural Growth Differentials (URGD) assumed: 1981-86 2.2% 1986-91 2.0% 1981-86 1.8% 1996-2001, 1.6%.

(iii) 1981 Population taken accounts for the net omission rate for both urban and rural areas.

(iv) Details on the population projections are available in the Report of the Task Force on "Planning of Urban Development".

Appendix Table A2.16

Distribution of Urban Population over various Class Sizes (1971-2001)

Year	Metro	I	II	III	IV	V	VI	Rural	Total Urban	Total Urban Projected
1971	25.5	28.6	11.6	18.1	12.5	3.4	.7	429	100.4	
	(A) 27.4	32.7	12.0	17.5	12.0	4.5	.5	422	106.6	
1981	41.2	48.3	16.3	21.7	13.8	3.9	.7	506	145.9	
	(A) 42.0	52.3	18.1	22.4	14.9	5.6	.8	502	156.1	
1991	66.5	85.7	27.5	29.2	18.6	6.8	1.3	605	235.6	235
2001	97.2	133.5	38.6	34.0	21.3	7.5	1.3	703	333.4	316

Notes:— 1. 1971 and 1981 figures exclude Jammu & Kashmir and Assam.

2. 1991 and 2001 projections include Jammu & Kashmir and Assam.

3. Class size : Metro

	1 Million+
I	100,000 to 999,999
II	50,000 to 99,999
III	20,000 to 49,999
IV	10,000 to 19,999
V	5,000 to 9,999
VI below	5,000

4. A stands for actual population according to the Census of India.

5. Details on the Population Projections are available in the Report of the Task Force on "Planning of Urban Development".

III. REFORM OF MUNICIPAL TAXES AND RENT CONTROL

Introduction

3.1 Earlier in the report reference has been made to the perilous state of finances of urban local bodies and to the fact that not only limited sources of revenue have been put at their disposal but that the yield of those taxes has not been increasing adequately. In this chapter (section) we shall examine the lines on which the major municipal taxes could be reformed so as to increase their elasticity, equity and acceptability to the taxpayers.

3.2 The structure of revenue receipts of 51 municipalities in the year 1976-77 is presented in Table-3.1. If the corporations and municipalities are taken together, own revenue formed 80.4 per cent of revenue receipts in 1976-77, of which tax revenues formed around 70.8 per cent. The rest of the 19 per cent or so of the revenue receipts consisted of transfers from the State governments and miscellaneous receipts. If corporations alone are considered, one finds that the share of own revenues in total revenues was 82 per cent and that the share of tax revenues was 72 per cent. On the other hand, in the case of municipalities, own revenues accounted for only 65.4 per cent of total revenue receipts and tax revenues for 58.4 per cent. Thus, the share of own tax revenues as well as of total own revenues was considerably smaller in the case of municipalities than in the case of corporations.

3.3 An analysis of the income of 29 municipal corporations for the year 1978-79 shows that the share of tax revenues in the total revenues was 75.4 per cent and that of total own revenues was as high as 88.6 per cent (Table 3.2). It is, however, noticed that the share of tax revenues varied very largely as between different corporations; whereas in some corporations such as Hyderabad, Ahmedabad, Bangalore and Trivandrum, the share of tax revenues was more than 80 per cent, in others such as Patna, Simla, Bhopal, Indore and Ujjain, it was 30 per cent or less. Own non-tax revenues generally formed a relatively small proportion of the total.

3.4 The percentage shares of the different taxes in the total tax revenue of 23 corporations in 1960-61 and of 29 corporations in 1978-79 are given in Tables 3.3 and 3.4 respectively. In the former year, property and service taxes formed as much as 63.9 per cent of tax revenues, whereas the share of octroi and terminal taxes was only around 20 per cent. In the latter year, the share of property and services taxes had come down to 47.5 per cent and that of octroi and terminal taxes had considerably increased at the expense of property taxes.

3.5 According to the NCAER study referred to earlier, in the case of Municipalities, the share of property taxes (including presumably service charges) in the total tax revenues fell from 44 per cent in 1970-71 to 40 per cent in 1976-77, while the share of octroi increased from 50.6 per cent to 53.3 per cent. The share of octroi has increased in the case of both corporations and Municipalities, but the latter depend on octroi much more than the former.

3.6 The rates of growth of the different components of tax revenue in respect of 23 corporations over the period 1960-61 to 1978-79 are given in Table 3.5. For the corporations as a whole, the rate of growth of total tax revenue was 11.76 per cent. Octroi grew at a much higher rate (16.2 per cent) than the property tax (10.1 per cent). The details of 'other taxes' are not given in the *Statistical Abstract*. But it is noticed that in the case of some of the corporations, the rate of growth of 'others' was quite high e.g., Hyderabad, Calicut and Poona. In 13 out of the 23 corporations, the rate of growth of property tax was less than 10 per cent with Patna registering a negative growth rate.

Octroi

3.7 We have seen that the relative importance of octroi in the tax revenue structure of urban local bodies has increased over time. At present there are several Municipal Corporations in which octroi accounts for more than 60 per cent of tax revenues. Municipal bodies have found it relatively easy to raise revenue through octroi because it is an indirect tax and the liability to pay it falls on a relatively small number of people.

3.8 If only octroi had been a good and acceptable form of taxation, urban local bodies could have been encouraged to exploit it more fully and effectively. Its elasticity has generally proved to be quite high and with a more systematic exploitation of this source revenue, the finances of municipal bodies would have shown considerable improvement. However, although there is scope for improvement in the administration of octroi so as to reduce evasion as well as inconvenience to the assessee, the octroi is inherently a 'bad' tax and no attempt at improvements in administration could remove some of its bad characteristics.

3.9 Indeed the octroi cannot form part of a modern system of taxation. It is collected at an inconvenient point and holds up traffic unduly even if each case is disposed of fairly quickly. But quick disposal could only mean inadequate and non-scientific assessment. By its very nature octroi assessment can only be unsatisfactory. If the octroi is levied on a specific basis, the total quantity has to be measured (or the number counted) which is not possible in respect of each truck. If it is levied on an *ad valorem* basis, the value of goods has to be decided upon. It is virtually impossible to arrive at proper valuation of all the goods passing through the checkpoints where only a cursory inspection is possible. While the sales tax assessment can be carried out on the basis of documents and sales vouchers and with adequate time being devoted to each case, octroi assessment has to be done in a hurry and often the value/quantity declared would have to be accepted.

3.10 Thus, it can be concluded that octroi cannot be properly enforced unless one is to put up with inordinate delay in releasing vehicles stopped at the checkpoints. Since the base of the tax cannot be ascertained satisfactorily, there is likelihood of arbitrary assessment and corruption. Nor is the tax acceptable from the economic point of view. It acts as a barrier to inter-regional and inter-city trade. It generally falls on inputs and because of that accentuates cascading. As a commodity in the process of production moves from city to city, the same input gets taxed repeatedly. And, of course, there is interaction between octroi and sales taxes and between octroi and excises. The levy of octroi on inputs also encourages the manufacture of inputs within large cities, as against their dispersal to the areas outside them.

3.11 For the above reasons, the basic question concerning octroi is its abolition; but this cannot be thought of unless we are able to find for the urban local bodies a viable alternative or alternatives.

3.12 It is found that generally wherever octroi is not in existence, the property tax is used more effectively or intensively. However, improvements in property tax administration and the possible consequential rise in property tax yield cannot be expected to compensate fully for the loss in octroi revenue. An increase in property tax revenues is in any case needed for meeting increasing expenditure needs even if octroi is to continue. Clearly, other substitutes would have to be found for the latter.

3.13 The suggested substitute should be at least as elastic as octroi, should not have its major shortcomings and should fall predominantly on urban consumers. If the sales taxes are rationalised and made largely free of cascading effects, then a simple surcharge on sales taxation to be levied in all urban areas would prove to be the most convenient and effective substitute for octroi. Since the sales tax is already being assessed and paid, a surcharge thereon would not entail any additional inconvenience. Moreover, the sales tax has proved to be adequately elastic.

3.14 A Major difficulty in replacing the octroi by a surcharge on sales tax is the limitation on the rate of sales tax on declared goods which by central law has been set at a maximum of 4 per cent. Thus, whereas the octroi can be levied on these goods, the sales tax on them which is already being levied at the maximum rate (generally), cannot be raised through a surcharge, as a replacement for octroi. The second difficulty in the sales-tax surcharge solution is that while the octroi can be, and is generally, levied on the three important consumer goods (textiles, sugar and tobacco) subject to additional excise duty in lieu of sales tax, the sales tax surcharge will not be applicable to them.

3.15 The first difficulty can be gotten over by the Central government permitting the States to levy a surcharge on the sales tax on declared goods upto a maximum of 10 per cent or so (*i.e.*, 10 per cent of the basic tax) specifically for the benefit of local bodies, if no octroi is levied on these goods in the States concerned. The situation, from the economic point of view, would be better after this change than at present when octroi at differing rates is being levied on declared goods by different local bodies in a State.

3.16 The second difficulty can be gotten over by the Central government agreeing to levy a municipal surcharge on the additional excise duty in lieu of the octroi on them. However, this solution would be workable only if all the States abolish octroi.

3.17 The second alternative, in order of preference, if some of the steps indicated above are not considered feasible (or are not politically acceptable), would be to retain the octroi in metropolitan cities and to abolish it in all other areas to be replaced by a State-wide surcharge on the sales tax. This could be distributed among the non-metropolitan municipal bodies according to certain criteria to be decided by a Municipal Finance Commission. If this alternative is adopted, there would be need for reforming the structure of octroi duties. The rates of duty on raw materials and other inputs must be kept fairly low. In this connection, it should be emphasized that converting the octroi from the specific to *ad valorem* basis is fraught with much difficulty and would certainly give rise to disputation and greater corruption. This must be opposed. The specific duty rates could be raised at suitable intervals, with the approval of the State governments to compensate for inflation.

3.18 The third alternative is to abolish octroi throughout a State and to replace it by a State-wide entry tax on the lines of the M.P. entry tax. The proceeds would be distributed among the local bodies in the manner envisaged for the State-wide sales tax surcharge in the second alternative.

The Property Tax

3.19 The property or real estate tax is often regarded as the ideal form of local taxation. It is demanded from people who have some proven capacity to pay and who at the same time can be taken to benefit from the most important of the services provided by the local bodies. The property tax has the least spillover effects among the possible, productive locally leviable taxes. It may be taken to fall largely on owners/occupiers of houses and old residents who use services provided by business and commercial establishments owning/renting property in the concerned city. Of course, to the extent that property taxes are shifted and that the businesses in a city export their products, part of the tax may be said to spillover into other areas. But the spillover is likely to be greater in the case of an alternative tax like octroi or a local income tax.

3.20 The question has often been raised whether the property tax is to be looked upon as a user charge for services rendered or as a tax proper. The most plausible answer is that it partakes of both. As a tax, it has to be levied, as far as possible, in accordance with ability to pay. And ability to pay can be attributed only to individuals, or institutions reflecting the ability to pay of individuals owning them. As a service charge, 'the property tax' must be imposed on the basis of the cost of services, at least the basic services, provided by the municipal bodies and enjoyed by the assessee.

3.21 Although the property tax is one of the oldest of the taxes introduced after the advent of the British rule in India, its administration leaves much to be desired. Even the theoretical and practical basis of its levy is far from satisfactory. As Sarma, K.S.R.N. (1980) has shown, there is a wide variation in the basis, structure and administration of property tax as between States and between municipalities within a State. Laxity in assessment, undervaluation of properties and even the choice of the basis of assessment have led to grave inequities in so far as there is violation of rule of horizontal equity.

3.22 The rate of growth of yield of property taxes in the sample municipal bodies studied by NCAER was about 15 per cent per annum between 1970-71 and 1976-77. However, when we took 23 large municipal corporations, we found that the growth of property tax yield (inclusive of the yield of service charges) was only 10.1 per cent between 1960-61 and 1978-79, whereas the yield of octroi increased by 16.2 per cent during the same period. Comparable figures for the municipalities are not available, but it seems likely that property tax collections did not grow much faster in their case too. In any case, apart from the rate of growth, the level of collections is also a matter of importance. The question here is whether the level of actual collections is reasonably close to that of potential collections, given the legal base and the rate structure. Detailed studies made of property taxation in different municipal areas seem to indicate that the gap between the two is fairly large.

3.23 Thus, from several points of view, a reform of property taxation is urgently called for.

3.24 As indicated earlier, it would be best to consider property tax as consisting of two elements—service charge and tax proper. The former would have to be collected on some appropriate basis even from those who may not be said to have "the ability to pay" such as Government departments, non-profit institutions and poor residents living in slum areas.

3.25 *Basis of levy of property tax*: India follows the traditional British practice of basing the tax on annual value. It has sometimes been suggested that municipal bodies in India should switch over to capital value. Two major advantages are claimed for this. One is that with capital value as base it would become easier to tax vacant land¹, which may not be said to have any current annual value (though high valued land must have potential annual value). The other advantage claimed is that it would be easier to determine the capital value of real property than its annual value. As regards the latter point, it is not at all clear how the determination of free market capital value would be easier than that of free market rent or annual value. It is of course possible to work out for tax purposes capital values of property in different localities in a city after market surveys, etc., but then similarly it should be possible also to work out annual values, since the two are inter-related. It is also a moot question whether when the capital value of a property appreciates, because of expected increase in its annual value in the future, then though the present annual value has not risen, it would be equitable to tax the present owner at a higher level as would happen if capital value is chosen as the base.

3.26 There are other capital taxes to be paid to the State and Central governments. It might be thought that if the property tax is put on a capital value basis, there could be coordination in the matter of valuation for the different taxes leading to a better enforcement of all the taxes. In this connection it might be noted that a special procedure has been laid down for the valuation of buildings for the wealth tax and that procedure starts with the determination of annual value. For the purpose of estate duty, valuation is done only once in a life time; and this is not going to be of much help for the levy of the wealth tax. Also the property tax is an annual tax whereas the stamp duty is payable only when there is a sale. It follows that much greater care has to be exercised in determining the value for the property tax, whereas citizens may not be too hard hit if the value for stamp duty is pitched somewhat high.

3.27 On the whole there does not seem to be any great net advantage in switching over to capital value except in the case of vacant land.

3.28 *Different kinds of properties*: We may consider the assessment and levy of property tax in respect of four broad categories of property: (i) Rent controlled property; (ii) Rented property not under rent control; (iii) Owner occupied property and (iv) Properties of non-profit and charitable associations.

3.29 *Rent controlled property*: One of the causes for the stagnation of property tax collection in larger cities, it is widely agreed, is the operation of rent control, which has kept rents pegged down to unreasonably low levels. With the Supreme Court's judgement in the case of Dewan Daulat Raipur Vs. NDMC (1979) the property tax has to be assessed, in respect of all properties legally subject to rent control whether or not the rent has been fixed by the Rent Controller, on the basis of the controlled rent even if the landlord has revealed that he is receiving a higher rent. The Supreme Court's judgement follows from the general definition of annual rental value in the Property Tax Act as the gross annual rent at which the property may be reasonably expected let from year to year. Hence it would apply to all municipal areas in respect of which the Property Tax Act is so worded. If there is no rent control, this may be taken to mean the market rent; if there is rent control, it is now taken to mean only that amount of rent which is allowable under the rent control law.

3.30 It is not clear whether the legal hurdle placed by the Supreme Court judgement in the way of higher assessment of rent controlled property can be overcome by changing the Property Tax Acts to the effect that where the actual rent paid is higher than the rent at which the property may reasonably be expected to be let from year to year, the former would be the basis of assessment. The ultimate solution to the dampening of the property tax collections through the operation of rent control law lies in revising the controlled rent according to changes in the economy, particularly in the price level. We discuss the lines on which the existing rent control legislation may be modified later in this chapter. Once it becomes the practice to revise the controlled rent periodically, there could also be corresponding revisions of property tax assessments even though there may be some time lag between the two revisions.

3.31 *Rented property not subject to rent control*: In the case of properties which are rented out but which are not legally subject to rent control it becomes necessary to determine the amount of gross rent which the property concerned may reasonably be expected to fetch, i.e., the market rent. As experience has shown, this is by no means an easy task. The present position is that there are no well defined procedures for assessment, the assessing personnel are poorly trained and large under-valuation takes place partly because of the above-mentioned reasons and partly because of collusion between the taxpayer and the assessing officers. Two remedies have been suggested in order to make assessments less arbitrary

¹ Vacant land is defined here to mean unbuilt land and land appertenant to buildings in excess of a prescribed maximum.

and closer to actual values so that the revenue may gain and at the same time gross inequities may be avoided. The first is the setting up of a State level Central Valuation Board which would not only undertake a systematic valuation of properties in all the municipal areas in the State, develop norms for valuation in the process, but also impart training to municipal officers engaged in assessment work. As regards actual assessment there are two differing views: the first is that the officers of the Valuation Board themselves should undertake the assessment work perhaps in cooperation with the municipal officers; the other view is that the authority of the municipal authorities should not be undermined and that therefore the officers of the Valuation Board should only lay down norms, impart training and perhaps also undertake sample checks, but that the actual assessment work should be undertaken by the municipal personnel. The exact course to be adopted will obviously depend upon the local conditions. What is essential is that there must be established in each State a Central Valuation Board whose minimum job would be to develop methods for arriving at annual values and to impart training in assessment procedures to municipal officers.

3.32 The second method suggested (e.g., Ramakrishna 1980) is to move away from the attempt to determine annual value and to relate the basic property tax to plinth area. In addition, surcharges would be added according to location, type of construction, nature of use and age of building. Each of these would be divided into a few categories and a value would be attached to each category. The assessors would then simply apply the 'norms' to each piece of property assessed. Thus, arbitrariness in assessment and legal disputes could be minimised. The difficulty with this solution is that it is not at all clear how the basic tax per square metre of plinth area could be determined for different localities without arbitrariness if one moves away from annual value and capital value nor how values for different categories of construction for example could be fixed for tax purposes. The basis of determination must be ultimately related to ability to pay. Unless this is clearly seen and shown, the Courts are likely to strike down the whole procedure. Hence, the assessee must have the option to have the tax assessed on the basis of annual value. As an alternative, the procedure of applying norms may be offered. Many assessees may choose this in order to avoid long-lasting disputes and uncertain outcomes.

3.33 Realistic valuation of the property tax base would be resisted and stoutly opposed by the assessee if the rates of tax are unduly high. It should be remembered that properties subject to the annual property tax are often also subject to two other annual taxes, namely, the income tax and the annual wealth tax. Although the property tax paid is deducted from annual value to arrive at the capital value for the wealth tax, credit is not given for the property tax paid against income tax payable. But deduction is made for arriving at the taxable income. However, since the marginal rate of income tax is nearly 70 per cent, a property tax reaching upto 30 per cent puts a high premium on evasion and avoidance through concealment of real value. We would like to emphasise that along with the steps taken to expand the base of the property tax, there must be effected reductions in the rates of tax which seem to be unduly high in several of the municipal corporations.

3.34 *Owner-occupied property* : If the property occupied by the owner himself is legally subjected to rent control then it might not be possible to assess the property on the basis of market value. Indeed, owner-occupied property has to be treated more leniently. While all the properties have to bear the service charge element, the tax component would have to be kept moderate in the case of owner-occupied properties. Hence, even if owner-occupied properties are not subject to rent control they could either be assessed as though they were subject to rent control or if their assessments are based on market value, an abatement for owner-occupancy may be granted. As more and more middle-class and lower middle-class people begin to acquire residential property in our towns and cities, a special treatment of them for property tax purposes, somewhat along the lines indicated above becomes crucially important both from the equity point of view and from the point of view of making the tax acceptable to the general public.

3.35 *Properties of non-profitable and charitable institutions* : We had earlier indicated that the service component of the property tax must be payable on all structures whether owned by individuals or institutions. Charitable institutions including universities, colleges and research institutes cannot be said to have the ability to pay taxes because their properties are not owned by individuals or corporations owned by individuals. However, they may be justly required to pay the service charge. It is recommended that a service charge of 5 per cent or so should be required to be paid by all non-profit making charitable institutions, provided they are not in the nature of private trusts and provided their properties are not rented out for a consideration. Initially, for calculating the rateable value, the actual cost of construction may be taken as the base including the cost of land. A certain rate of return, say 8 per cent, of the cost of construction should be assumed to represent the

annual value. The amount of service charge initially determined could be revised upwards periodically by an index of the cost of providing basic services. This would automatically result in an equitable treatment of institutions established at different points of time and also lead to increase in revenue.

3.36 Apart from the four categories mentioned above, property tax is to be collected also in respect of vacant land. In States where minimum values have been laid down for plots of land in different parts of the State for purposes of payment of stamp duty or norms and guidelines have been laid down for valuation of land for that purpose, the Central Valuation Board, which we have recommended to be established in all the States, could make use of the work done by the Registration Department and adopt, with suitable modifications, values for vacant land in different parts of cities. If such minimum values have not been laid down as yet, then the Central Valuation Board, in collaboration with the Registration Department, should prepare a register of values for lands in different cities. The values once determined should be revised every five years or so. Property tax on vacant land could be levied as a percentage of capital value after the necessary deductions or on the basis of rateable value to be derived from annual value which would have to be worked out on the basis of a reasonable rate of return.

3.37 In the end, we would like to emphasise again that if rent control is relaxed, with the controlled rents being revised periodically, assessments are done properly and revision of assessment is also carried out, say every five years, then the rate of tax should be kept moderate. The highest rate of property tax including service charge should not exceed 15 per cent of rateable value (based on annual values).

3.38 The measures of reform of the property tax base and structure that we have recommended would necessarily take some time to implement. The changes in the rent control law cannot also be brought about immediately. In the meantime, property tax revenue can be increased substantially if collections could be tightened up. It is well known that, generally speaking, there is a considerable lag between property tax demand and collection for which there is no discernible justification.

Modifications in Rent Control Legislation

3.39 Given the existing shortage of accommodation in urban areas, it will not be possible to do away with rent control altogether. Moreover, the tenants have to be protected not only against unduly high rents but also against frequent evictions by greedy landlords. In our situation, security of tenure is as important as reasonableness of rent.

3.40 However, freezing of rent for 50 or 60 years has done incalculable damage to the housing situation and has brought in several distortions. It is widely recognised that there should be at least a degree of relaxation in rent control. The Task Force gives below suggestions for the modification of rent control legislation. Only the broad elements of the reform package are spelt out; details would have to be filled in according to local conditions.

3.41 The standard rent is the rent fixed by rent control authorities. In the case of all new buildings the rent may be allowed to be determined by the market for the first five years or so. The rent reported for the fifth year will be the controlled rent for the sixth year. Then the rent will be revised every 3/5 years in accordance with the Central government D.A. formula or by a given percentage of the increase in the consumer price index (CPI). As regards old properties, to start with the standard rent fixed way back in the past should be increased by 50 per cent of the percentage increase in the CPI between the year of fixation of rent and the present time. After that the rent will be increased every 3/5 years as in the case of new buildings coming up after the law is changed. Commercial properties should be freed of rent control altogether. As regards tenants enjoying the protection of rent control, they would enjoy security of tenure so long as they pay the rent as revised from time to time and the landlord does not need the premises for self-occupation.

3.42 The above suggestions are more or less in line with the reported recommendations of the EARC on the subject of rent control. If the rent control law is changed, as suggested, the base of the property tax would be expanded and the property tax would become more elastic. At the same time the security of tenure of tenants would be ensured. Indeed flexible rent control on the lines recommended by us would also lead to minimisation of arbitrariness in property tax assessment and hence elimination of disputes as well as inequities.

Devolution of Taxes to Local Bodies

3.43 In order that there may be adequate and systematic devolution of funds to local bodies from higher levels, a suitable mechanism has to be evolved. The best course might be to appoint a Municipal Finance Board as a standing institution to make a continuous review of local finances and for maintaining

upto-date data on them. A Municipal Finance Commission must be appointed every five years under aegis of the Municipal Finance Board to recommend the basis of devolution of funds from the States to the local bodies. It is essential that the devolution of taxes should be formula-based. The Municipal Finance Commission should only determine the distribution of the share of taxes and the amounts of grants-in-aid to be given for equalisation purposes. The volume of taxes to be devolved would be determined by formulae to be decided by the State government which should remain unaltered for a reasonably long period of time, say 20 years. The gap-filling approach should be completely ruled out.

3.44 The Task Force recommends that 5-10 per cent of the corporation income tax should be earmarked for local bodies. At present at 10 per cent this would mean an addition of about Rs. 200 crore and it will amount to about 33 per cent increase in the current revenues of the local bodies. This devolution is justified since the vast majority of companies have their head offices and even their factories and godowns in urban areas and utilise a substantial part of the services provided by urban local governments. In addition to the devolution of the corporate income tax, the local bodies should be given 100 per cent of the profession tax and at least 50 per cent of the entertainment tax (wherever these taxes are collected by the State Governments).

References

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Table 3.1

Structure of Revenue Receipts—Sample Municipal Bodies

(Per cent)

	Municipalities' own sources			Contri- butions	Grants	Miscella- neous	Total revenue receipts
	Tax revenue	Non-tax revenue	Total				
Corporations							
1970-71	72.13	9.55	81.68	6.74	7.86	3.72	100.00
1976-77	72.33	9.87	82.20	5.37	8.22	4.21	100.00
Municipalities							
1970-71	61.78	7.50	69.28	10.20	10.13	10.39	100.0
1976-77	58.43	7.04	65.47	12.13	10.26	12.14	100.00
TOTAL							
1970-71	70.96	9.32	80.28	7.13	8.11	4.48	100.00
1976-77	70.82	9.56	80.38	6.10	8.44	5.08	100.00

Source : National Council of Applied Economic Research, New Delhi. A study of the Resources of Municipal Bodies 1980 (New Delhi) (Table III. 9).

Table 3.2

Composition of Revenue of Municipal Corporations
(1978-79)

(Rs. thousand)

State/Union Territory/Local Body	Andhra Pradesh Hyderabad	Bihar Patna	Gujarat Ahmeda- bad	Gujarat Baroda	Gujarat Surat	Himachal Pradesh Simla	Karnataka Banga- lore
	1	2	3	4	5	6	7
I. Tax revenue							
1. Property	4,10,63	—	7,69,50	1,82,44	1,52,60	11,67	4,14,94
2. Service		21,58	1,78,66	1,05,18	88,77	—	77
3. Octroi	41,91	—	19,09,56	4,55,18	5,05,48	38,39	10,53,12
4. Terminal	—	—	—	—	—	—	—
5. Trades & Callings	9,71	82	—	2,21	—	—	3,07,31
6. Animals and Vehicles	61	3,47	51,16	4,74	4,78	2	3,21
7. Toll	—	—	—	2	16	—	39
8. Miscellaneous	3,60,86	1,47	8,16	3,89	6,55	3,86	1,36,91
Total tax revenue	8,23,72 (89.70)	27,34 (30.28)	29,17,04 (80.37)	7,53,66 (68.95)	7,58,34 (77.12)	53,94 (32.02)	19,16,65 (96.06)
II. Non tax revenue	92,28 (10.05)	7,90 (8.75)	3,20,95 (8.84)	1,71,96 (15.73)	69,22 (7.04)	13,30 (7.90)	58,81 (2.95)
III. Ordinary grants	2,35 (0.25)	55,04 (60.97)	3,91,69 (10.79)	1,67,39 (15.32)	1,55,79 (15.84)	1,01,15 (60.07)	19,70 (0.99)
Total Ordinary Income (I+II+III)	9,18,35 (100.00)	90,28 (100.00)	36,29,68 (100.00)	10,93,01 (100.00)	9,83,35 (100.00)	1,68,39 (100.00)	19,95,16 (100.00)

Table 3.2 (Continued)

(Rs. thousand)

State/Union Territory	Madhya Pradesh Raipur	Madhya Pradesh Ujjain	Maharashtra Bombay	Maharashtra Nagpur	Maharashtra Poona	Maharashtra Sholapur	Tamil Nadu Madras	Uttar Pradesh Agra
	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
I. Tax revenue								
1. Property	15,76	9,03	46,29,38	81,60	2,65,90	57,14	—	40,82
2. Service	8,92	—	52,59,28	1,71,72	91,72	60,82	—	—
3. Octroi	06,03	—	55,38,60	4,78,22	8,24,81	2,65,91	—	1,41,96
4. Terminal	5,65	13,02	—	—	—	—	—	—
5. Trades & Callings	—	—	—	—	—	—	—	—
6. Animals and Vehicles	63	15	2,06,48	70	11,17	67	—	3,84
7. Toll	—	—	—	—	—	33	—	—
8. Miscellaneous	20,55	6,34	34,00	6,83	49,60 ³	2,98	—	36,11
Total tax revenue	1,57,54 (78.15)	28,54 (21.79)	1,46,67,74 (80.60)	7,39,07 (68.87)	12,43,20 (80.40)	3,87,85 (79.63)	—	2,22,73 (59.11)
II. Non tax revenue								
	28,59 (14.18)	20,54 (15.69)	30,22,31 (16.61)	1,36,30 (12.70)	1,84,00 (11.90)	50,49 (10.36)	—	94,35 (25.04)
III. Ordinary grants								
	15,47 (7.67)	81,88 (62.52)	5,07,51 (2.79)	1,97,82 (18.43)	1,19,05 ₹ (7.70)	48,74 (10.01)	—	59,73 (15.85)
Total Ordinary Income								
	2,01,60 (100.00)	1,30,96 (100.00)	1,31,97,56 (100.00)	10,73,19 (100.00)	15,46,25 (100.00)	4,37,08 (100.00)	40,29,13 (100.00)	3,76,81 (100.00)

Table 3.2 (Concluded)

(Rs. thousand)

State/Union Territory Local Body	Uttar Pradesh Allahabad	Uttar Pradesh Kanpur	Uttar Pradesh Lucknow	Uttar Pradesh Varanasi	West Bengal Calcutta	West Bengal Chander- nagore	Delhi Delhi	Total
	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
I. Tax Revenue								
1. Property	56,00	2,07,03	94,29	28,45	9,44,34	3,70	15,97,23	92,02,24
2. Service . . . . .	..	..	..	..	71,13	6,52	23,61	61,83,67
3. Octroi	1,20,00	..	2,24,07	1,58,27	..	4,59	..	1,22,02,94
4. Terminal	8,00	4,48,09	..	..	..	..	12,43,52	17,64,88
5. Trades & Callings	18	..	11	..	1,40,53	85	..	4,71,56
6. Animals and Vehicles	2,61	13,68	9,10	9,63	3,60	9	2,58	3,35,26
7. Toll	2,00	..	..	3,24	..	55	..	6,83
8. Miscellaneous	4,50	2,31	38,50	7,00	5,40	6,22	12,93,03	22,35,97
Total tax revenue.	1,93,29 (53.79)	6,71,11 (65.70)	3,66,07 (73.47)	2,06,59 (73.73)	11,65,00 (54.73)	21,83 (31.68)	41,60,02 (74.23)	3,24,93,29 (75.39)
II. Non tax revenue	54,85 (15.26)	1,93,26 (18.92)	71,97 (14.44)	29,94 (10.69)	2,70,69 (12.72)	4,26 (5.89)	5,15,78 (9.20)	56,75,62 (13.21)
III. Ordinary grants	1,11,23 (30.95)	1,57,05 (15.38)	60,25 (12.09)	43,66 (15.58)	6,92,82 (32.55)	45,09 (62.43)	9,28,73 ⁴ (16.57)	43,99,62 (11.40)
Total Ordinary Income (I+II+III)	3,59,37 (100.00)	10,21,42 (100.00)	4,98,29 (100.00)	2,80,19 (100.00)	21,28,51 (100.00)	72,23 (100.00)	56,01,53 (100.00)	429,78,53 (100.00)

Note : ¹for the year 1977-78.²for the year 1976-77.³includes the compensation received in lieu of the professional tax.⁴includes Rs. 20,000 relating to "ways and means loan" from Government.⁵excluding Tamil Nadu (Madras) as the break-up is not available.Source : GOI, CSO
Statistical Abstract
(1979).

Table 3.3
Percentage Share of each Tax in Total Tax Revenue
 (1960-61)

(Per cent)

Corporation	Property tax	Service	Octroi	Terminal	Trades and Callings	Animals and Vehicles	Toll	Miscellaneous
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Hyderabad	45.00	..	23.00	..	1.99	7.32	0.49	22.29
2. Patna . . . . .	..	91.54	..	..	5.38	..	..	3.07
3. Ahmedabad	39.28	19.70	36.92	..	..	3.28	..	0.82
4. Bangalore	31.55	..	31.79	..	0.89	13.94	0.49	21.33
5. Calicut	43.09	46.87	..	..	8.23	1.81	..	..
6. Trivandrum	62.93	..	..	..	16.86	0.08	0.03	20.05
7. Gwalior	13.64	..	72.73	4.54	4.54	4.54	..	..
8. Indore	15.51	0.16	76.62	..	..	0.76	..	6.95
9. Jabalpur . . . . .	..	13.29	72.83	..	..	1.95	0.17	11.74
10. Ujjain	16.28	..	65.87	6.56	0.94	1.99	..	8.37
11. Bombay	43.72	38.31	8.08	..	5.05	4.23	..	0.60
12. Nagpur	10.75	31.35	54.84	..	..	1.53	..	1.52
13. Poona	27.95	12.44	55.47	..	..	..	2.63	1.50
14. Sholapur	18.66	35.28	43.83	..	..	0.40	0.53	1.29
15. Madras	60.31	..	..	..	6.17	0.61	1.20	31.70
16. Agra	14.14	25.06	1.72	23.42	..	1.72	32.84	1.09
17. Allahabad	18.05	24.05	46.67	4.15	0.59	5.54	0.95	..
18. Kanpur	28.32	..	1.29	24.78	..	..	23.52	22.09
19. Lucknow	23.81	..	1.10	46.73	0.17	4.51	..	23.68
20. Varanasi	31.11	..	61.95	..	..	1.51	0.38	5.05
21. Calcutta	90.78	..	..	..	7.94	1.13	..	0.15
22. Chandernagore	33.11	45.78	..	..	5.33	2.22	13.56	..
23. Delhi	38.03	1.33	..	35.17	..	8.02	..	17.44
TOTAL	44.36	19.53	15.88	4.71	3.52	3.69	1.31	7.00

Source: *Government of India, C.S.O. Statistical Abstract (1979)*

Table 3.4
Percentage Share of Each Tax in Total tax Revenue
 (1978-79)

(Per cent)

Corporation	Property tax	Service	Octroi	Terminal	Trades and callings	Animals and vehicles	Toll	Miscellaneous	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1. Hyderabad ¹	49.85	..	5.09	..	1.18	0.07	..	43.81	
2. Patna	..	78.93	..	..	3.00	12.69	..	5.38
3. Ahmedabad	26.38	6.12	65.46	..	..	1.75	..	0.28
4. Baroda	24.21	13.96	60.40	..	0.29	0.63	..	0.52	
5. Surat	20.12	11.71	66.66	..	..	0.63	0.02	0.86
6. Simla	21.63	..	71.17	..	..	0.04	..	7.16
7. Bangalore	21.65	0.04	54.95	..	16.03	0.17	0.02	7.14	
8. Dharwar	15.43	7.23	65.69	..	..	..	0.03	11.62
9. Calicut ¹	32.09	25.68	..	..	4.85	0.14	..	37.24
10. Trivandrum	47.87	..	..	..	4.32	0.19	..	47.62
11. Bhopal	74.89	2.29	..	20.43	..	..	..	2.34
12. Gwalior	7.39	..	86.24	3.72	1.05	0.21	0.02	1.37	
13. Indore	24.79	..	..	12.18	..	0.84	..	62.19
14. Jabalpur	13.81	61.86	..	10.76	..	0.73	..	12.84	
15. Raipur ¹	10.00	5.66	67.30	3.59	..	0.40	..	13.04	
16. Ujjain	31.64	..	..	45.62	..	0.53	..	22.21
17. Bombay	24.74	35.86	37.76	..	..	1.41	..	0.23
18. Nagpur	11.04	23.23	64.71	..	..	0.09	..	0.92
19. Poona	21.39	7.38	66.35	..	..	0.90	..	3.99
20. Sholapur	14.73	15.68	68.56	..	..	0.17	0.09	0.77
21. Madras	Break-up not available								
22. Agra	18.33	..	63.74	..	..	1.72	..	16.21
23. Allahabad	28.97	..	62.08	4.14	0.09	1.35	1.03	2.33	
24. Kanpur	30.85	..	..	66.77	..	2.04	..	0.34
25. Lucknow	25.76	..	61.21	..	0.03	2.49	..	10.51	
26. Varanasi	13.77	..	76.61	..	..	4.66	1.57	3.39
27. Calcutta ²	81.06	6.11	..	..	12.06	0.31	..	0.46
28. Chandernagore	16.17	28.50	21.63	..	3.71	0.39	2.40	27.19	
29. Delhi	38.39	0.57	..	29.89	..	0.06	..	31.08	
TOTAL	28.40	19.08	37.66	5.45	1.45	1.03	0.02	6.90	

Note : ¹for the year 1977-78.

²for the year 1976-77.

Source : Government of India, C.S.O. Statistical Abstract (1979).

Table 3.5

Rates of Growth of Different Components of Tax Revenue of Corporations
1960-61 to 1978-79

(Amounts in Rs. thousands)

State Local Body Year	Andhra Pradesh Hyderabad			Bihar Patna			Gujarat Ahmedabad			Karnataka Bangalore		
	1960-61	1977-78		1960-61	1978-79		1960-61	1978-79		1960-61	1978-79	
	(1)			(2)			(3)			(4)		
<i>Tax revenue:</i>												
1. Property and service	4893	41063	13.33	3213	2158	(-)-2.19	20555	94816	8.86	4728	41471	12.82
2. Octroi and terminal .	2501	4191	3.08	—	—	—	12868	190956	16.17	4765	105312	18.77
3. Others .	3480	37118	14.94	297	576	3.75	1428	5932	8.23	5495	44782	12.36
TOTAL	10874	82372	12.65	3510	2734	(-)-1.38	34851	291704	12.53	14988	191665	15.21

Table 3.5 (Contd.)

State Local Body Year	Kerala Calicut			Kerala Trivandrum			Madhya Pradesh Gwalior			Madhya Pradesh Indore		
	1960-61	1977-78		1960-61	1978-79		1960-61	1978-79		1960-61	1978-79	
	(5)			(6)			(7)			(8)		
<i>Tax revenue :</i>												
1. Property and service	1192	3825	6.69	769	5296	11.32	300	1308	8.52	965	2995	6.49
2. Octroi and terminal .	—	—	—	—	—	—	1700	15926	13.24	4718	1472	(-)-6.27
3. Others .	133	2796	18.44	453	5767	15.18	200	468	4.84	475	7613	16.66
TOTAL.	1325	6621	9.35	1222	11063	13.02	2200	17702	12.28	6158	12080	3.81

Table 3.5 (Contd.)

State Local Body Year	Madhya Pradesh Jabalpur			Madhya Pradesh Ujjain			Maharashtra Bombay			Maharashtra Nagpur		
	1960-61	1978-79	g	1960-61	1978-79	g	1960-61	1978-79	g	1960-61	1978-79	g
	(9)			(10)			(11)			(12)		
<i>o</i> Tax revenue :												
1. Property and service	549	6854	15.06	278	903	6.76	125067	838866	11.51	4966	25332	9.47
2. Octroi and terminal .	3008	975	(—)6.07	1237	1302	0.28	12323	553860	23.54	6468	47322	11.76
3. Others .	573	1229	4.33	193	649	6.97	15076	24048	2.63	360	753	4.13
TOTAL .	4130	9058	4.46	1708	2854	2.89	152466	1466774	13.40	11794	73907	10.73

Table 3.5 (Contd.)

State Local Body Year	Maharashtra Poona			Maharashtra Sholapur			Tamil Nadu Madras			Uttar Pradesh Agra		
	1960-61	1978-79	g	1960-61	1978-79	g	1960-61	1978-79	g	1960-61	1978-79	g
	(13)			(14)			(15)			(16)		
<i>o</i> Tax revenue :												
1. Property and service	5190	35762	11.32	3046	11796	7.81	18310	N.A.	—	1366	4082	4.44
2. Octroi and terminal .	7127	82481	14.57	2475	26591	14.10	—	N.A.	—	1197	14196	14.73
3. Others .	531	6077	14.50	126	398	6.60	12048	N.A.	—	1697	3995	4.87
TOTAL .	12848	124320	13.44	5647	38785	11.30	30358	N.A.	—	4760	22273	8.95

Table 3.5 (Contd.)

State Local Body Year	Uttar Pradesh Allahabad			Uttar Pradesh Kanpur			Uttar Pradesh Lucknow			Uttar Pradesh Varanasi		
	1960-61	1978-79	g	1960-61	1978-79	g	1960-61	1978-79	g	1960-61	1978-79	g
	(17)			(18)			(19)			(20)		
<i>Tax revenue :</i>												
1. Property and service	2081	5600	5.65	3400	20703	10.56	1495	9429	10.77	1731	2845	2.80
2. Octroi and terminal .	2512	12800	9.47	3130	44809	15.93	3003	22407	11.81	3447	15827	8.84
3. Others .	350	929	5.57	5477	1599	(—)5.61	1781	4771	5.63	386	1987	9.53
4. TOTAL .	4943	19329	7.87	12007	67111	10.03	6279	36607	10.29	5564	20659	7.56

Table 3.5I (Concluded)

State Local Body Year	West Bengal Calcutta			West Bengal Chandernagore			Delhi Delhi			TOTAL		
	1960-61	1976-77	g	1960-61	1978-79	g	1960-61	1978-79	g	1960-61	1978-79	g
	(21)			(22)			(23)			(24)		
<i>Tax revenue :</i>												
1. Property and service	43522	101547	5.44	355	1022	6.05	13246	162084	14.93	261717	1469857	10.06
2. Octroi and terminal .	—	—	—	—	495	—	11836	124352	13.96	84315	1265774	16.24
3. Others .	4420	14953	7.91	95	771	12.34	8568	129566	16.29	63642	296777	8.93
TOTAL .	47942	116500	5.71	450	2288	9.46	33650	416002	14.99	409674	3032408	11.76

Note : 'g' represents compound growth rate

Source : Government of India, C.S.O. Statistical Abstract (1979).

IV. FINANCING OF URBAN INFRASTRUCTURE

Sources of Finance .

4.1 The primary source of public financing of urban development is obviously plan funds ; this is supplemented by institutional finance and local resource mobilisation through land development by public agencies. Of the major components of urban infrastructure, housing and water supply components have the best prospects of reasonable cost recovery and hence of attracting institutional finance. Most other urban projects that are not commercially viable would continue to be funded through plan finance, although we have recommended below that the scope for introducing user charges can and should be expanded for many of the urban services that are presently regarded as free goods , financed through taxation. Depending on the success of introducing suitable user charges, the scope for corresponding capital financing for augmenting the facilities could be considered in terms of institutional financing.

4.2 Regarding the existing methods of plan finance for urban infrastructure , the major lacuna is the lack of integration with any municipal planning and budgeting process, with the result that municipal authorities are not induced to generate surpluses in their current budget for local investment on infrastructure. Indeed, revenue income is often so scarce that adequate operation and maintenance of existing services cannot be carried out. This situation needs to be remedied with effective integration of municipal planning and funding of their projects on a five yearly basis. As a first step it is recommended that the Municipal Finance Commissions take specific cognizance of the need to maintain past capital investments in municipalities when they frame specific recommendations for transferring resources to local bodies. More generally, State governments should issue general guidelines to municipal bodies for the formulation of their respective municipal development programmes under specific sectors, so that they can be integrated with the State Level plans for urban development along with the plans for other agencies. Based on these guidelines municipal bodies should be asked to prepare capital and revenue budgets for the five-year plan periods. The larger urban bodies should be able to do this themselves, but the others might need some technical assistance. This could be supplied by the standing Municipal Finance Boards recommended earlier.

4.3 This process would generate compulsions on the part of the state governments to periodically review the non-plan part of municipal expenditures and would spur them towards a system of revenue sharing with the Municipal authorities . The essential point here is that effective integration of municipal finances with the state and national fiscal systems presupposes a suitable transfer mechanism for budgetary resources for both plan and non-plan accounts. Without this arrangement the locus of urban development responsibility cannot be effectively decentralised.

4.4 The major sources of institutional finance for urban infrastructure are the LIC, GIC, HUDCO and a few state-level agencies, like the Kerala Urban Development Finance Corporation (KUDFC). At the moment the LIC is statutorily required to invest in socially-oriented schemes, including housing, water supply and sewerage. There is a need to increase its allocation for financing the EWS and the LIG housing. It should also make its policy-linked loans for housing more attractive for its policy holders. Similar increases in allocation of funds needs to be made by the GIC as well. As regards capitalisation of the apex urban development financing agencies at the central and state levels, like the HUDCO and the KUDFC, there is a need to augment their resources so that increasingly larger proportions of investment finance could be channelled through the institutional sources, thus bringing in the compulsions of better project appraisal methods and cost recovery.

4.5 Strengthening of institutional financing arrangements for urban infrastructure needs a more unified approach and to this end creation of a separate development bank for urban services should be seriously considered. A central urban finance institution (UFI) could promote a new type of development activity in financing urban infrastructure with equity participation by the Reserve Bank, HUDCO, HDFC, LIC, GIC and other central and state-level financial institutions. With the participation of the state and local authorities, the equity of the UFI could be further enhanced. A strong central presence with an autonomous status would give the UFI solidity and professionalism. The Central Government could strengthen the UFI through fiscal incentives, guarantees and other support rather

than direct budgetary transfers. Apart from increasing the supply of capital funds for urban infrastructure, the UFI would be able to introduce improved appraisal methods, suggest innovations in pricing and cost recovery and help to streamline the municipal financial and accounting systems so that external funding becomes a real possibility. The case for a UFI is elaborated in Chapter V.

4.6 At the local level, there is a need to utilise the potentialities of the market for developed land through socialisation of urbanisable land and the introduction of suitable land value increment taxation methods, like betterment levy. While there are inherent limitations of using the compulsory acquisition of agricultural land for a variety of urban development schemes, efforts should be made to introduce land readjustment methods, as practised in Japan and South Korea, so that the original land-owners reap a part of the increased land value after development. The existing system of betterment levy also needs to be revamped to make it function as a local capital gains tax, as in South Korea and Taiwan.

The Scope for User Charges

4.7 It has become abundantly clear that even if there is a greater provision of central and state funds for the financing of urban development it will be necessary for urban bodies to generate a greater volume of funds themselves and achieve a greater degree of self-financing. The levy of user charges for the consumption of public services is one way of increasing the resources of urban local bodies. This is to be distinguished from the financing of urban services from the property tax since user charges are more directly related to the consumption of the specific services. It is therefore necessary to examine critically the extent to which user charges can be levied for financing urban development.

4.8 The pattern in most local bodies regarding levy of user charges and property tax differs considerably. In some cases a consolidated property tax is levied and user charges are not separately levied. In cases where separate authorities have been set up, principally for items such as water supply, sewerage, drainage and transport, attempts have been made to co-relate user charges to the expenditure on the provision of the concerned services. But it may be said that the general practice has neither been systematic nor coherent and there is no general agreement on the services where user charge devices may be adopted.

4.9 The advantages of the user charge approach may briefly be listed from the point of view of greater degree of self-financing by urban bodies. The first advantage is that a direct *quid pro quo* is established and the user pays for the benefit which he derives. Second, the user charge approach avoids the possibility of non-beneficiaries having to pay for particular services. Third, the user will be able to identify exactly how much the service is costing him and monitor the efficiency of performance or cost-effectiveness of the organisation which provides the services. Fourth, institutional financing from non-budgetary sources becomes easier with the user charge approach.

4.10 For the above reasons, it has been suggested that, as far as possible, services which are amenable to the user charge approach should be identified. In general, the level of user charges should be set to recover not merely the operation and maintenance cost of the relevant service, but also some part (perhaps all) of the capital cost.

4.11 Let us briefly review the feasibility of levying user charges for different urban infrastructural services. The first such service is obviously water supply. Water charges may be levied at different rates, for different uses or classes of consumers, namely, industrial consumers, commercial consumers, institutional consumers and domestic consumers. In the domestic sector some relief is to be given to the poorer sections, who abound in most urban areas; this can be done by fixing a flat charge related to ferrule size of the supply of water. For industrial, commercial and institutional consumers, rates can be fixed per thousand gallons and on the whole the water supply service can be made to pay for itself. Needless to add, the user charge approach for water supply will require metering and this can be done through a gradual process of starting with the bulk consumers, industrial, commercial and institutional consumers, newly developing or developed areas and then proceeding last to the older areas of the cities. This phasing is needed because some capital expenditure will be necessary for introducing metering and billing systems. It has to be accepted that safe potable water is a valuable good and not a free commodity and charging for water on the basis of consumption will also help in the conservation of water resources of the country. Another aspect to be considered is that because of the social obligation of providing potable water supply to the economically weaker sections of the community, full cost recovery of water supply projects may not always be feasible.

4.12 To what extent can user charges be levied for sewerage and drainage? Drainage systems are expensive and it is impossible to establish a *quid pro quo* for them. They are true public goods. Moreover, the most expensive part of the drainage systems, the outfall systems, are responsibilities of the state governments and they should continue to be a charge on the budgets of the state government. But as far as sewerage is concerned, though the possibilities of sewerage being extended on any large scale are very limited in view of constraint of resources, at least for certain ranges of properties in cities, a sewerage surcharge may be levied on the water rate and this will help to effect a partial cost recovery in the matter of liquid waste management. Where low-cost sanitation methods are adopted, efforts should be made to make the beneficiaries pay a part, perhaps one-third or 40%, of the cost of the low-cost sanitation facility and the rest may be subsidised. It may be relevant to note here that liquid waste disposal, which is an expensive component, should be achieved through low cost technologies, such as lagoons and stabilisation ponds, rather than trickling filters or bio-filters.

4.13 It is well-known that a significant part of the revenue expenditure of every municipal body is on solid waste removal collection and disposal. At the disposal end, some cost recovery may be possible if sanitary land-fill (along with reclamation of lands which are low-lying) or composting methods are adopted. But it should be noted that economics of composting is highly location-specific because compost from most urban garbage acts as soil conditioners and not as fertilisers, and because transport cost is a very important element. Very often transport cost subsidies are required in order to sell the compost from urban solid waste. In the matter of liquid waste disposal also some amount of cost recovery may be possible if liquid waste is used for biogas-generation, irrigation for agricultural purposes in the fringe areas of urban areas, sewerage-fed pisciculture and the cultivation of macrophytes. But these technologies are in the elementary stage of development in this country and it may be necessary to have a determined drive in the Seventh Plan if cost recovery from liquid waste and solid waste in urban areas is to be even partially effected. Another point that needs to be noted in this connection is that the need for solid waste cost recovery may be reduced if the methods of solid waste management in our cities are modernised. At present most of the municipal areas have highly inefficient labour-intensive methods of collection, removal and disposal of solid waste. An in-depth study should be conducted as to how to cut cost in solid waste management as this is one of the items which poses a major burden on municipal budgets.

4.14 It is generally found that in most urban areas per capita generation of solid waste is about 0.5 kg. Bearing this in mind, it is even possible to calculate for a number of representative municipal areas the generation of domestic garbage and the total cost of their collection, removal and disposal per kg. A solid waste charge may then be imposed on the basis of solid waste generation by each property holder, allowing 5 persons per property unit. For all industries, commercial enterprises like markets, hotels etc., it should be possible to levy a solid waste collection, removal and disposal charge. This extreme procedure is suggested for consideration because solid waste management is one of the most inefficient and financially wasteful of municipal services at present.

4.15 Another sector in which cost recovery is obviously possible and should be effected is area development, shelter and urban renewal. It has been suggested that in fact these three types of activities should be treated as composite systems in each city so that there can be cross-subsidies from income group to income group, from land use to land use, and also from urban renewal into shelter. Methods of cost recovery in the field of shelter have been well developed by institutions, such as HUDCO, though in the field of urban renewal we are yet to develop any large-scale expertise; but this is one field in which possibly there is scope for further research and the development of composite systems of cost recovery particularly by area development authorities, housing boards, etc. The method of cross-subsidy generally should be to have a floor price which is some proportion of the average cost of development and then add on to it a varying percentage of surcharge e.g., +25% for industry, +50% for commercial, and +75% for high income group.

Reform of Municipal Budgetary Procedures

4.16 At present, municipal budgets do not draw a distinction between Revenue and Capital accounts. Typically, all financial capital transactions are booked under a separate head of the general budget entitled "Extra-ordinary and Debt". The Task Force has already alluded to the need for separation between Revenue and Capital Accounts of the municipal budgets. Several potential benefits are foreseen. First, it should assist the integration between municipal planning of urban infrastructure expansions and their funding from local and state sources. Second, the introduction of capital budgeting should assist the development of institutional finance for urban infrastructure. Third, it should improve the economic and accounting basis for the

formulation and levying of user charges. Finally, and perhaps most importantly, the widespread adoption of separate Revenue and Capital accounts could greatly enhance the financial discipline of local bodies.

4.17 At present, creation of urban infrastructure is frequently unrelated to the capacity of municipalities to generate enough revenue to operate and maintain the new assets. The establishment of separate accounts for capital and revenue can help in moving to a more rational system where capital creation is commensurate with the income necessary to operate and maintain the investments. This important objective will not follow automatically from the establishment of capital budgeting. Much will depend on how much stress is placed on this objective by Municipal Finance Commissions. Furthermore, the institution of the capital/revenue account dichotomy should also help Municipal Finance Commissions in developing a system of devolving funds which is based on need, revenue capacity and performance (in revenue raising and expenditure economy) in the revenue account.

V. INSTITUTIONAL DEVELOPMENT :

THE NEED FOR AN URBAN FINANCING INSTITUTION

Introduction

5.1 The need for new institutions to aid orderly and timely investments in urban infrastructure has become more than evident from this report. The existing arrangements are clearly inadequate to deal with the growing urban service deficits, both in terms of maintaining services and extending them to un-serviced areas. The presence of a large population at low income levels militates against adequate local finance for the services necessary. Yet, this report has argued that if judicious selection is made of low cost technologies and if services are provided efficiently it is quite possible to improve the current situation considerably. The estimates in Chapter II underlined the importance of replacement investment and therefore of maintenance of existing infrastructure. Ways and means have to be found to provide incentives as well as control mechanisms for local authorities to conserve resources while making the necessary investments in urban infrastructure and services. This necessarily implies some new institutional structures which increase the access of local authorities to capital funds alongwith an assumption of much greater financial responsibility to make the former possible.

5.2 At present, local governments have very little access to funds for capital investments. Loan financing has been a small proportion of total revenues. As reviewed in Chapter I, it is difficult for local bodies to raise adequate resources for mere maintenance expenses, let alone capital expenditures. Thus, their dependence on State Governments is almost total for capital funding. Their borrowing powers are defined in terms of (a) the percentage of total annual rateable value (b) the percentage of own domestic revenue and (c) monetary ceilings. Under Central Legislation – the Local Authorities Loan Act (1914) – State Governments can sanction market borrowing of Rs. 500,000 with a repayment period of 30 years (beyond this Central Government approval is required). In contrast, in various developed countries, in particular the United States, the largest capital outlays for urban infrastructure are typically financed by borrowing through the issue of municipal bonds. This is feasible in these countries owing to much more highly developed capital markets and flexible regulatory frameworks which permit local authorities to borrow funds.

5.3 In India, the Central Government and the Reserve Bank of India control and limit the extent to which State Governments may borrow from the public. This is necessary in our planned system. The borrowing by local authorities, if permitted, is therefore subject to the overall ceilings for the States which they are located in. Of a total government outlay in 1982-83 of Rs. 49,000 crores, current revenues were Rs. 36,000 crores and borrowings about Rs. 12,000 crores. [The revised estimate for 1982-83 indicates Market loans (net) at Rs. 3800 crores, External borrowings (net) at Rs. 1400 crores and others at Rs. 7800 crores]. While the Central Government finances nearly 25% of its outlay through borrowings, the State governments, of total disbursements of 26,000 crores, utilised only 550 crores through market borrowing and relied for Rs 3500 crores as loans from the Central Government. (See Table 5.1). Although borrowings by the States has shown an increase from Rs. 317 crores in 1980-81 to Rs. 555 crores in 1981-82, the States' share in net total market borrowings (Central and State) remains around 10%. The Centre is still heavily dominant as far as borrowed resources are concerned. This illustrates the severe resource constraints that the system operates under. The scope for direct market borrowing by local authorities is therefore quite limited without a considerable devolution of market borrowing powers from the Centre to the States and local authorities, a possibility that is not likely in the foreseeable future.

5.4 Table 5.1 shows the Overall Budgetary Position of State Governments and Table 5.2 the extent to which State governments and their institutions have made use of borrowings. The States' share in net total market borrowings (Centre as well as States) rose to 10.3% in 1981-82 from 7.2% in 1980-81. The recovery of loans and advances granted by the States also improved considerably over the same period.

5.5 How are the considerable investment needs of urban areas to be financed then ? The issue is independent of who does the actual execution of works. As has been documented in this report and those of the other Task Forces, the responsibilities for urban infrastructure investments have gradually shifted to State Governments and their various agencies and local bodies have been doing very little capital investments. One of the results is that only a few benefit from the services that are provided.

5.6 As has been shown in the last couple of chapters, there is little connection between the capital expenditures and the resulting maintenance responsibilities and expenditures. Without adequate user charges it becomes difficult to maintain services, let alone raise resources for new investments. However, various reforms have been suggested—both for systematic determination of and provision for current expenditures of local authorities as well as for the scope of user charges for the financing of certain urban services.

5.7 If these reforms are carried out it will be possible for local authorities to sustain and service the capital investments necessary for minimal urban services. As mentioned, this will entail the tightening up of financial management ; of systems for the better collection of existing municipal dues ; of the levy and collection of user (or service) charges ; and the introduction of equally buoyant revenue sources to substitute for the abolition of octroi where this is done.

5.8 At present, capital expenditures of local bodies are financed out of own resources and (mainly) plan funds. The main problem with the latter is that they are limited in magnitude and therefore there is little that state governments can allocate to individual local bodies. Hence, even dynamic local bodies who have the capacity to undertake new projects with financial support are seriously constrained in their efforts to improve services. Moreover, the planning system permits little flexibility once funds are allocated. Thus, for local bodies to have access to plan funds, they have to be included at the initial planning stage in both the five year planning cycle as well as the annual planning cycle. What plan funds that are available naturally get allocated to the more pressing and obvious needs of state capitals and other larger cities. For the smaller towns there has been the scheme for the Integrated Development of Small and Medium Towns (IDSMT) which has been allocated the relatively small sum of Rs. 200 crores over the Sixth Five Year Plan period. Owing to problems in planning and implementation at the State and Local Levels it seems that even this allocation will not be utilised fully during the Sixth Plan. In addition to the implementation problems, the system of allocation of plan funds causes a large number of delays which eventually result in increased cost which are then not provided for.

5.9 The need then is for a more flexible system of financing of capital investments in urban areas. On the one hand, institutions need to be established which can be the source of long term funds for urban investments. On the other, agencies for urban infrastructure investments have to be strengthened, both financially and otherwise, so that they are capable of receiving and investing these funds.

The Need for an Apex Urban Financing Institution

5.10 In India, the use of development banks to finance development oriented sectors in the national economy has proved to be quite successful. These banks, by providing expertise as well as financial resources to a particular sector, encourage financial deepening of the economy. Various institutions serving the rural development programmes have now been subsumed under the National Bank for Agriculture and Rural Development (NABARD), the industrial sector is served by the Industrial Bank of India (IDBI), the Industrial Finance Corporation of India (IFCI), and the Industrial Credit and Investment Corporation of India (ICICI); the housing sector by the Housing and Urban Development Corporation (HUDCO) and the Housing Development Finance Corporation (HDFC). There have also been some suggestions for the need for an infrastructure bank to deal with power and transport. Similarly there is a need for a specialist facility to deal with the emerging urban problems that India will face in, the final decades of this century and beyond.

5.11 The question is not whether there is an existing institution that can take over this role. The raison d'être of an institution of this type is not simply one of a financial intermediary serving that sector; it is much more. Its initial role is a path breaking one ; it needs to chart a course for the solution of emergent problems, to set a style and system, and to develop an overall approach to the specific problems faced by that sector countrywide. In order to do this, it needs to study the overall problems and examine various strategies with which to overcome the most serious obstacles.

5.12 There is a need therefore for an apex institution devoted to the financing of urban development. Municipal Development Institutions (MDIs) are not a new phenomenon in other countries. They have been in existence for over a hundred years. They first emerged in Europe and have grown ever since. In the US also, there was a proposal in 1969 to create an urban development bank and a municipal bond guarantee corporation. These were never established due to the complexities of the already functioning municipal bond market and the related tax provisions in that country. The more developed a country the more developed is its capital market and its institutions. The history and evolution of financial institutions indicate that progress comes in diversity not in concentration. Institutions need to emerge and grow to fulfil different needs. This growth itself contributes to the development of a capital market with its concomitant variety of financial instruments and its adaptability to the sensitivities of the market place. *Appendix Table A5.1* lists the various MDIs that exist in different countries. Only recently has the importance of the financial intermediation process been recognised in the context of poorer countries. The finance of development could be enhanced not only by increasing the real resources saved for investment but by improving the effectiveness of the financial system whereby the allocation of total resources is improved. Financial intermediation that can effectively channel idle resources towards developmental goals is tantamount to raising the quantity and quality of investment and hence development.

5.13 Given that most of the urban infrastructure investments yield benefits over a long period of time like 40-50 years, it is clear that an institution is needed which can raise and then disburse long term funding. The idea is to establish an apex body which can mobilise resources for the financing of local bodies, development authorities and other institutions which invest in urban infrastructure. It could issue financial instruments like bonds and debentures, mobile deposits, etc. more easily than local bodies themselves in our centralised financial system. Risks would be shared between the central government, state governments and local bodies within some system of government guarantees. Unlike the U.S. system of municipal bonds being issued by individual local bodies, in India it would be more feasible if a central institution did it.

5.14 The advantages of establishing an apex Urban Financing Institution (henceforth U.F.I.) can be elaborated.

Development of Expertise and Technical Assistance

5.15. If an apex financial institution is established it would be easier to develop expertise in the designing, monitoring and evaluation of urban infrastructure development. This is analogous to the expertise that HUDCO has already developed in housing which is being transferred to the State Housing Boards and other borrowing agencies through its operations. Procedures get developed for the better scrutiny of schemes which then gets reflected in better project preparation as well. It is often the case that innovative projects are developed and implemented in particular cities or states. Typically, such experience remains localised and is not transmitted to other cities. The existence of a specialised financial institution helps in spreading successful means of implementing projects through their normal operations. It may be argued that such expertise and communication capabilities can be developed through the relevant government departments. In practice this does not happen because of way government departments are presently constituted. Because of transfers, etc., they are seldom able to maintain a substantial advocacy role. Moreover, the lack of flexibility hinders the hiring and development of specialized personnel which is easier in a financial institution.

Access of Local Bodies to Finances

5.16 In the current system, the financing of urban infrastructure that is included in Plan funds is decided by State Governments. As a result, as mentioned earlier, typically such funds are allocated to a handful of cities. Other local bodies have no recourse to any other sources of finance. A U.F.I. would also, therefore, be useful in providing access to local bodies for financing of urban infrastructure in these towns. This is analogous to the way in which any public authority—a municipal corporation or a housing board or an urban development authority—has access to HUDCO funds for housing projects. A measure of flexibility is introduced into the system so that well drawn up projects have a better chance of being funded. However, appropriate guidelines and safeguards need to be built in so that the funds of the U.F.I. are distributed equitably between states and cities.

Ability to Raise Funds

5.17 While it is true that the establishment of an additional financial institution does not necessarily increase the *total* pool of savings, it is quite possible that additional areas of institutional investments might raise the level of *financial savings*. Such an institution can be empowered to do public borrowing, but within the nationalised and planned credit system. A U.F.I. could also receive international funds which are otherwise difficult to channel to individual cities. This is partly because risks are pooled in such an institution and partly because it is far easier for international funding agencies to deal with one central financial institution rather than a multiplicity of agencies. It is easier, for example, for the World Bank to channel a major portion of its lending for agricultural rural development projects through NABARD and for industrial projects through IDBI, rather than having to interact with individual states and projects. Moreover, a financial institution, or its developer is able to raise more financial resources through innovative schemes suited for its specialised function. It is able to mobilise deposits, for example, and put them to use instead of their lying idle as is often the case. This is the essence of a financial intermediary even if the overall rate of savings is not increased : available financial resources are more efficiently channelled towards the most productive uses.

Improvement of Local Bodies

5.18. It can also be expected that the rigour of borrowing from a financial institution would induce some improvement in the management and finances of local bodies so that they become eligible for loans from such a body. The preparation of projects should improve along with their implementation. The existence of a U.F.I. would help in distinguishing projects, which are for the supply of 'pure' public goods and have therefore to be financed entirely from budgetary resources, from those such as water supply and sanitation which have identifiable beneficiaries and are more bankable. The necessity of repaying a financial institution and of being subject to its financial scrutiny would help in inducing local bodies to assume greater financial responsibility and have better management. The argument is not that all these things will happen automatically, nor that they will happen overnight, since there is ample evidence from a host of public sector specialised corporations that they perform no better than their departmental predecessors. The argument is that the establishment of a U.F.I. would tend to change the trend of urban infrastructure financing towards these directions and that changes can be expected over a period of time.

5.19. A U.F.I. could help the local authorities to improve their management procedures, financial and non-financial. The introduction of modern accounting systems could be initiated and assisted by such an institution. Again, an analogy can be taken from HUDCO. Most State Housing Boards have been using the normal governmental accounting systems. HUDCO has recently started a scheme for technical assistance helping the Housing Boards to switch to commercial accounting systems.

Advocacy Role

5.20. The area of urban infrastructure investment has suffered more neglect at least partly because of diffusion of responsibility among different level of governments, agencies and institutions. It therefore helps if there is a central specialised financial institution which will then also perform an advocacy role through the creation of a channel of investment for urban infrastructure. Funds going towards this end could increase as a result if there is a perception of more efficient use and allocation of resources. Urban finance and urban development, for example, are not even offered as major areas of university research and training. An institution of this type could take the initiative of sponsoring professional

chairs and funding urban research departments so that the country can build up a pool of trained and professional manpower over the years for employment as future urban managers.

5.21 It is important to note that the U.F.I. will not be *replacing* existing sources of funding to local bodies. It would be supplementing them and at the same time providing local authorities with advisory services to rationalise and modernise municipal systems and administration. In other words, the UFI will help strengthen the resource base of local bodies so that external financing becomes a real alternative to traditional sources of revenue.

5.22 A UFI would not be an institution designed to channel grant funds to local authorities. The task of UFI would be to sustain a flow of finance to local authorities by mobilising additional resources for urban infrastructure financing as well as improving the ability of local authorities to receive loan finance and to service this debt. The relationship would be a creditor/debtor one and not a grantor/grantee.

5.23 HUDCO, established in 1970, has made a tremendous impact on housing development in India. By raising resources and channelling them through local institutions, HUDCO has been able to use local capabilities to produce housing of a specific type for a specific beneficiary group. Financial discipline has been imposed on local housing boards, their objectives clarified and projects implemented. HUDCO has also assisted Local Housing Boards to prepare sound project appraisal reports and has thus helped to professionalise local abilities. There have been problems, but the achievements have also been immense. Without an intermediary with special expertise in housing design, layout and construction these achievements would not have been realised. The Housing Development Finance Corporation (HDFC) is similarly developing the housing finance market for individual financing. The urban finance intermediary would perform a similar role.

5.24 The new institution could not be outside the plan system but a part of it. It would be a specialist agency that would require considerable government support but it would raise resources as part of planned resource mobilisation strategies. It would not rely on plan outlays but on financial savings.

Conclusion

5.25 The emergence of Municipal Development Finance Institutions throughout the world is in itself a positive statement to their essential and useful role. In India, a highly regulated and centralised capital market structure alters the initial conditions for the emergence of this type of institution. The following points need to be noted :—

- (a) A strong central presence would be required for an urban finance institution. Local institutions would not be able to command the requisite flexibility, respectability and influence.
- (b) With a professional management structure this institution could offer a package of financial and non-financial services. It could act as an important catalyst to better local finance and management.
- (c) Over time, with this institution helping to streamline local body finances, there would be a reduction in the *ad hoc* Governmental attitude towards the provision of resources to local bodies. With growing self-reliance there would be less reliance on the Centre.
- (d) The private sector could easily get involved in this activity by working with this institution in joint efforts to provide infrastructure in developing areas. (To this extent the need for local authorities to provide services would be reduced).
- (e) Funds, as will be outlined in the next section, would not be a major problem and would not require direct Central Government allocations. The new institution would therefore not be playing a 'channelling' role but would be involved in development activity.

5.26 The role suggested for this institution is one that the country lacks today.

- (a) This activity has not been taken by the private sector.

- (b) Existing specialised institutions are not in a position to take over this role. (Though HUDCO's objectives include some of the activities of urban development in general they do not take into account urban finances in particular. HUDCO has been unwilling to enter this potentially gigantic field).

5.27 There are several problems that may be anticipated with regard to the setting up of a new institution, the most cogent of which are perhaps :

- (i) The creation of a new institution would "crowd out" other sectors from a fixed pool of resources. This will be true to a certain extent and it could be countered with regard to the priority the government places on urban infrastructure. As this institution would try and build-up local bodies at the *nation wide level* and not mainly in the metro cities it would need support.
- (ii) To the extent that Local bodies are not 'viable borrowers' how would loan finance help ? The whole point of setting up the present institution is to change this gradually by starting with the most promising local bodies and gradually assisting others to achieve an acceptable level of financial viability.
- (iii) The success of a venture of this type depends heavily on government commitment to the concept of local decentralised management. This would of course be an issue to be resolved, but this is a theme which runs through the reports of all the four Task Forces on Housing and Urban Development.

5.28 Finally, the fundamental criteria that would need to be applied to the decision making process would be whether the emergence of such an institution would not only sustain (and enhance) the flow of finances to local bodies but would also improve the nature and type of financial relationship existing between the Central Government and local bodies. The next section suggests a feasible structure for such an institution.

A Proposal for an Urban Financing Institution

5.29 The case for an apex urban development financing agency having been established, it is necessary to suggest a structure for the institution and some idea of its scope. As India's capital market is quite centralised, the new institution will have to be National level institution based in New Delhi or Bombay, preferably the latter, it being the financial centre of the country. As the institution develops a primarily refinancing role, state level institutions can be established to decentralise operations.

Capitalization & Ownership

5.30 Today, the various development institutions have built up considerable financial strength after many years of development financing but have been hesitant to get involved in a wider developmental role. Industrial, agricultural and housing institutions all operate in areas where infrastructural facilities are crucial for orderly development. Nevertheless, infrastructure is rarely directly financed. There is a good case for these institutions to get actively involved with financing these facilities and one effective method would be to support a UFI.

5.31 It is, therefore, proposed that the Reserve Bank of India take the lead role in promoting a UFI. Other development finance institutions would be encouraged to support such a venture. The equity structure could be as follows :

	(Rs. crores)
Reserve Bank of India	100
Other development institutions	100
	200

The capital structure would be built up over a period of five years. Initially, the Reserve Bank would subscribe Rs. 75 crores with other contributions from other development finance institutions at the All India and the State levels. (ICICI, IDBI, IFCI, NABARD, HUDCO, LIC, GIC, UTI, State Financial Corporations, Urban Development Corporations etc.). The second tranche would be called up in the third or fourth year depending on the initial growth and progress of the new institution.

5.32. Equity could be enhanced in time with State governments and local authorities taking an active part in the UFI's operations. A strong central presence with an eminent Board of Directors and an autonomous operating policy would give UFI a solidity and professionalism while at the same time steering away from political issues. The Central Government could support the UFI through fiscal incentives, guarantees and other incentives rather than direct budgetary support.

Operating Policies

5.33. The UFI's main objectives would be :

- (a) To increase the supply of capital that is made accessible to local authorities to finance infra-structural projects with special reference to urban services.
- (b) To help especially medium and small size towns to provide adequate urban services by providing them with long term finance for urban projects.
- (c) To help to streamline the financial and accounting systems in force in local bodies so that external funding becomes a real possibility.
- (d) To study in detail methods by which the revenue structure of local authorities can be rationalised so that urban services are priced adequately to cover the costs of their provision.
- (e) To act as an intermediary through which funds could be channelled and monitored in a systematic manner for urban development activities.
- (f) To help identify projects that have a good potential for financing. The UFI would also help to undertake detailed appraisal and could offer technical assistance in implementation and monitoring.
- (g) To develop overall technical expertise in urban infrastructure investments and to offer technical assistance to state level and city level agencies and institutions.

5.34. Initially, the U.F.I. would provide long term loans to urban bodies for urban projects which have a good potential for the levy of user charges and thereby a good chance for paying back of loans. These include :

- (i) Water delivery system
- (ii) Sewerage
- (iii) Solid waste disposal
- (iv) Transport
- (v) Main line bridges
- (vi) Infrastructure for shelter and urban renewal projects.

5.35. The UFI would also finance the urban services component of public and private sector projects especially in developing townships. Both on site and off-site infrastructure could be considered as repayments would be worked into the project estimates.

Sources of Funds for the U.F.I.

5.36. It would be essential for the UFI to have access to long term funding. Long term finance could be raised partly through Government guaranteed bonds and partly through commercial loans

from the major institutions such as LIC, GIC, UTI etc. State level bond issues could also be examined for local programme financing so that locally raised resources would be used for local development programmes.

5.37 The UFI would have to seek good long term sources of finance as the bulk of its financial resources would be deployed in long term loans to local authorities. The Provident Fund could well be an investor in UFI. (In Brazil, Denmark and Norway, pension funds of municipal employees, for example, are channelled into an intermediary for investment in municipal development).

5.38 Provident Fund annual accumulation is around Rs. 700 crores per year and their investible surplus about Rs. 600 crores per year. If Provident Funds could invest just five per cent per year in the UFI this would constitute an annual contribution of Rs. 30 crores.

5.39 Local authorities and municipalities with surplus funds could invest with UFI so that country-wide there would be a more efficient allocation of resources for local development.

5.40 Today the LIC uses its large investment funds to grant loans to local bodies for power supply, housing, piped water supply and sewerage schemes in urban and rural areas, development of road transport and industrial development (see Appendix A5.2). 1131 urban local bodies in nineteen states received LIC support for water supply and sewerage. During 1981-82, LIC advanced Rs. 515 crores for infrastructure projects including electricity, housing, water supply and sewerage, transport and industrial development. Of these, less than Rs. 60 crores were devoted to water supply and sewerage. These are spread throughout the country and do not form part of a systematic development plan for local authorities and the services that they are capable of providing. A central institution specialised in the field would be better able to monitor these programmes within and overall development programme. The LIC could well become a major contributor of funds to UFI.

5.41 The UTI is another source of large investible funds (estimated to be over Rs. 1000 crores in 1983-84) which could be tapped for long term investments.

5.42 The rough basis on which these figures have been worked out are as follows :

- (i) The total requirements for urban infrastructure investment was worked out at about *Rs. 8000 crores* (in 1980 prices) in Chapter II. Ideally, the financing for all of the bankable, or remunerative, portion of such investments could be channelled through the U.F.I. In practice, however, this will not be possible and a large quantum of funds will have to continue to be channelled through the normal plan funds route. According to the data in Chapter II, about half of the investment requirement would be in potentially remunerative areas like water supply, sewerage/sanitation, solid waste disposal and land preparation. Thus, it is difficult to envisage the U.F.I. to be able to channel more than Rs. 4000 crores of investments in these areas. Keeping in mind a feasible growth path for a new institution of this type and the implementation capabilities of the receiving agencies, it seems that the U.F.I. could not fund more than a half of the urban infrastructure investments mentioned above. A judicious growth path has yielded the figures given in Table 5.3 but a successful institution could channel upto Rs. 2000 crores in its first 5 years of existence.
- (ii) Disbursements have been assumed to take place in the following manner: In the first year 30% of sanction; in the second year 60% of the previous year's sanction and in the third year 10% of the first year's sanction. In other words, there would be lag effects in disbursing moneys due to delays in getting the project off the ground etc.
- (iii) The Reserve Bank of India can take major responsibility for contributing 75 percent of the initial capital of Rs. 100 crores. The second tranche would become necessary in the fourth or fifth year when the U.F.I. should seek 75% of equity funds from the other financial institutions mentioned earlier. This would also depend on its performance in the initial years.
- (iv) *Long Term Bonds* : At least a portion of these should be guaranteed by the government with the usual tax concessions. A portion of these should be subscribed by pension funds, provident funds, etc. and other financial institutions with long term funds, and part can be raised through public borrowing.

- (v) *Deposits:* Agencies benefitting from the U.F.I. like municipal corporations, water and sewerage boards, urban development authorities and the like can be encouraged to deposit relatively short term surplus funds with the U.F.I. Other affected agencies like large industrial townships can also use the deposit facility of the U.F.I.

Lending Operation

5.43 The U.F.I. would lend to local bodies on suitable security for periods ranging from five to twenty years. Loans would be available at a rate of interest ranging between 9 to 12 percent per annum depending on the type, nature and duration of the finance required. Technical assistance would be provided free of cost though, for the larger local bodies, consultancy services would be charged at an appropriate fee. The U.F.I. would also recover processing fees and incidental expenses from loan applicants to cover its operating costs. Over time, with a build up of reserves, U.F.I. would be able to subsidise (capital subsidies rather than interest subsidies) smaller local bodies for essential projects which could eventually become self-financing. In this manner initial subsidies would make some smaller projects viable in the short term.

5.44 The U.F.I. would need to evolve a judicious portfolio of the type of investments that it is able to finance under prudent financial principles. Thus, it would need to finance some relatively more remunerative short term investments and other longer duration less remunerative ones.

Land Development and Private Savings

5.45 One activity which is relatively short term and which is conducted by public agencies to a large extent is that of land development. This includes the laying out water supply lines, drainage, sanitation and sewerage, roads, street lighting, etc. in any new development, be it residential, industrial or commercial. The charges that are usually levied on the buyers of the developed land usually include at least the on-site costs of all these types of infrastructure. If there are no land acquisition delays, such an activity can be accomplished in 2-4 years. Local bodies would therefore take loans from the U.F.I. for land development for term of 5 years and at relatively high commercial market interest rates. These loans would turn over at 5 year intervals. It should be noted that to the extent individuals and firms are paying for the developed land, a direct link is established between individual savings and the U.F.I. If the introduction of the U.F.I. in the national system has the effect of accelerating land development for residential and other economic activities, it could have the effect of raising the overall level of savings. It is through this mechanism that even investments in items like roads, street lights, drainage, etc. which are pure public goods, can be recovered and their financing made a prudent financial decision.

5.46 The Task Force on "Planning of Urban Development" has recommended the widespread application of the "Land Readjustment" System for accelerating the development of urban land, in preference to the large scale acquisition of land for urban development. If this suggestion is implemented, it would become even easier for the U.F.I. to fund such activities.

Other Investments

5.47 Infrastructure items like water supply head works, trunk sewer lines, main roads, sanitary land-fills, main street lights, etc. are either not amenable to user charges at all or to only partial recovery through user charges. The U.F.I. would have to lend at reasonable interest rates and for long terms for these purposes.

5.48 A combination of these long term investments with short term and high yielding land development loans should make it possible for the U.F.I. to lend for a large number of urban infrastructure items on a sound financial basis.

Outline of the Delivery System

5.49 As the U.F.I. will be a strong central institution, it will require a channelling mechanism through which urban finances can be routed to local bodies. There are essentially two broad methods by which this may be achieved (i) use of existing institutions/state governments (ii) the promotion of new institutions and mechanisms.

5.50 At present the all India industrial finance institutions have already devolved some of their financing to the state level by refinancing state level institutions that originate loans. Loans above a certain limit need to be negotiated directly with the central institution. A similar methodology could be utilised by a central All India U.F.I.

5.51 At present there are very few institutions operating in this field at the local level. Nevertheless, the need for such institutions at the State level have been recognised and Kerala and Gujarat, for example, have established their own State urban finance institutions. The U.F.I. could well operate through these local institutions initially in states that have already set them up (Madhya Pradesh is also considering setting up such an institution).

5.52 Each State, in time, will develop appropriate institutions that support local urban development activity depending on the level and pace of urbanisation in that State. States that are urbanising at a rapid rate will feel the urgency for urban finances and will take all possible measures to ensure that they receive their share of urban finances. The less urban states are likely to proceed more slowly in this area which will also help the system to develop gradually. Devolution will thus depend on the priorities placed by different states on urban development.

State Level Urban Financing Institutions

5.53 Just as states have established State Financial Corporations to route industrial investments from the IDBI to smaller enterprises and Land Development Banks for the channelling of funds from NABARD, it will be necessary, particularly, for the more urbanised states, to have U.F.Is at the State Level. The central U.F.I. could then deal directly with the larger corporations, particularly the metropolitan cities, while mainly refinancing the state U.F.Is. This pattern of urban infrastructure finance is likely to be the culmination of a lengthy process of evolution, during which the Central and State U.F.I's gain the requisite experience.

5.54 The U.F.I. could also begin operations by financing urban infrastructure projects that are a part of urban development plans being implemented by an urban development authority. An institutional presence would be useful in channelling and monitoring funds lent for urban development. (For example U.F.I. could finance urban infrastructure in the CIDSO New Bombay project without a need for a local urban finance agency). In other words, the U.F.I. could operate through existing institutions that are undertaking urban development activities at the State and local level. As the operations of the U.F.I. expand, it is likely, however, that a State level urban finance institution would become necessary to ensure a spread of lending activities to small and medium sized towns throughout the State.

5.55 Precise mechanisms and institutions develop as the need arises. No financial system has been put in place at a single stroke; they evolve by digesting the problems that emerge initially. Housing finance is at this early state; urban finances have yet to make a beginning.

Appendix Table A5.1

A LIST OF MUNICIPAL DEVELOPMENT FINANCIAL INSTITUTIONS

Name and Country of Institution	Date Formed
1. Deposit and Consignment Bank of <i>France</i>	1799
2. Public Works Loan Board of U.K.	1817
3. Real Estate Corporation of France . (Credit Fanciere France)	1852
4. The Municipal Credit Bank of <i>Belgium</i>	1860
5. The Deposit and Credit Bank of <i>Italy</i>	1863
6. General Deposit, Credit and Provident Bank of <i>Portugal</i>	1876
7. The Municipal Credit Association in <i>Denmark</i>	1899
8. The Central Savings Bank of the Municipality of Vienna in <i>Austria</i>	1905
9. General Deposit, Credit and Povident Bank of <i>Germany</i>	1909
10. The Municipal Credit Bank, predecessor of the present Bank for Netherlands Municipalities	1914
11. The Bank for Local Credit in <i>Spain</i>	1925
12. The Municipal Bank of <i>Norway</i>	1926
13. The Municipal Pension Fund in <i>Denmark</i>	1929
14. The Provinces Bank of <i>Turkey</i>	1945
15. The Loan and Consignment Fund in <i>Greece</i>	1945
16. The <i>Norwegian</i> Municipal Pension Fund	1949
17. The Local Government Loans Authority in <i>Kenya</i>	1953
18. The Bank for <i>Israeli</i> Local Authorities	1954
19. The Development Fund in <i>Thailand</i>	1955
20. The Finance Corporation of Local Police Enterprise in <i>Japan</i>	1957
21. The Institute of Municipal Development in <i>Guatemala</i>	1957
22. Fonds d' Equipment Communal in <i>Morocco</i>	1958
23. The <i>Austrian</i> Municipal Credit Company for the Development of Industrial Sites	1959
24. The Autonomous Municipal Bank of <i>Honduras</i>	1961
25. The Local Development Banks of <i>Indonesia</i>	1962
26. The Municipal Credit Corporation in <i>Sweden</i>	1962
27. The Foundation of Community and Municipal Development in <i>Venezuela</i>	1962
28. Institute of Municipal Assistance and Development (IFAM) in <i>Costa Rica</i>	1970
29. Municipal Development Institute (IDM) of <i>Paraguay</i>	1971
30. Fonds Special d'Equipment et d'Intervention Intercommunale in <i>Cameroon</i>	1974
31. Caisse de Prets et de Soutiens de Collectivites Locales (GPSCL) in <i>Tunisia</i>	1975

SOURCE : Mainly Credit Institutions for Local Authorities.

UN, New York, 1972. pp. 16-18

Taken from Municipal Development Banks and related Financial Intermediaries—Catalysts for Resource Mobilisation and Development in LDCS (Part I) Laurence Clark, Urban Division, World Bank.

Appendix Table A5.1

LOANS ADVANCED FOR INFRASTRUCTURE BY THE LIFE INSURANCE CORPORATION

A. Loans Advanced during 1981-82

Authorities	Amount Advanced during 1981-82	
	(Rupees in Crores)	
<i>Electricity :</i>		
(i) State Electricity Boards		153.98
<i>Housing :</i>		
(ii) State Governments for Housing Schemes	36.40	
(iii) Apex Co-operative Housing Finance Societies	73.00	109.40
<i>Water Supply & Sewerage</i>		
(iv) Municipal Committees and other Local Bodies for Urban Water Supply and Sewerage Schemes	50.69	
(v) Zilla Parishads and other Local Bodies for Rural Piped Water Supply Schemes	5.97	56.66
<i>Transport :</i>		
(vi) State Road Transport Corporations		24.86
<i>Industrial Development :</i>		
(vii) Industrial Estates	3.01	
(viii) Sugar Co-operative Societies	6.69	
(ix) Joint Stock Companies (including Loans to Public Sector Companies)	166.78	170.48
Total		515.38

B. Cumulative loans advanced and outstanding upto 1982.

Authority	Amount	
	Advanced upto 31st March	Out-standing as on 1982
	(Rupees in Crores)	
(i) State Electricity Boards	1200.56	865.35
(ii) State Government for Housing Schemes	433.43	318.87
(iii) Apex Co-operative Housing Finance Societies and of other Authorities for financing Housing Co-operatives and to State Housing Boards	609.87	456.05
(iv) Municipal Committees in various States and to State Governments for Urban Water Supply Schemes	372.76	316.48
(v) Zilla Parishads in various States for Rural Piped Water Supply Schemes	45.89	39.92
(vi) State Road Transport Corporations	83.16	75.54
(vii) Sugar Co-operative Societies	36.83	25.79
(viii) Co-operative Spinning Mills	0.30	0.04
(ix) Industrial Estates	23.64	19.04
(x) Joint Stock Companies	461.07	347.47
(xi) Development Authority-Nagaland	1.44	1.44
Total	3268.95	2465.99

Table 5.1

OVERALL BUDGETARY POSITION OF STATE GOVERNMENTS

(Rs. Crores)

Item	1980-81		1981-82		1981-82		1982-83	
	Accounts		(Budget Estimates)		(Revised Estimates)		(Budget Estimates)	
	Amount	Amount	Percentage variation over the previous year	Amount	Percentage variation over the previous year	Amount	Percentage variation over the previous year	
1	2	3	4	5	6	7	8	
I. Aggregate Receipts (A + B)	21873	21904	+ 0.1	24222	+ 10.7	26461	+ 9.2	
A. Revenue Receipts (1 + 2)	16293	16914	+ 3.8	18319	+ 12.4	20569	+ 12.3	
1. Tax Receipts (a + b)	10405	11490	+ 10.4	12361	+ 18.8	14136	+ 14.4	
(a) States' Taxes	6616	7514	+ 13.6	8070	+ 22.0	9425	+ 16.8	
(b) Share in Central Taxes	3789	3976	+ 4.9	4291	+ 13.2	4711	+ 9.8	
2. Non-Tax Receipts (c + d)	5888	5424	- 7.9	5958	+ 1.2	6433	+ 8.0	
(c) Grants from the Centre	2622	2470	- 5.8	2782	+ 6.1	3030	+ 8.9	
(d) Other Non-Tax Receipts	3266	2954	- 9.6	3176	- 2.8	3403	+ 7.1	
B. Capital Receipts (1 + 2)	5580	4990	- 10.6	5903	+ 5.8	5392	- 0.2	
1. States' Capital Receipts of which	2558	2111	- 17.5	2477	- 3.2	2427	- 2.0	
(a) Market Borrowings (Gross)	317	496	+ 56.5	555	+ 75.1	555	-	
(b) Recovery of Loans	449	587	+ 30.7	611	+ 36.1	614	+ 0.5	
2. Loans from the Centre (Gross)	3022	2879	- 4.7	3426	+ 13.4	3465	+ 1.1	
II. Aggregate Disbursements (A to E)	22770	22191	- 2.5	24873	+ 9.2	26482	+ 6.5	
A. Developmental Expenditure* (1+2)	15961	16064	+ 0.6	17884	+ 12.0	18945	+ 5.9	
1. Social and Community Services	6601	6766	+ 2.5	7611	+ 15.3	8209	+ 7.9	
Of which :								
Expenditure on Natural Calamities	277	109		211		119		
2. Economic Services	9360	9298	- 0.7	10273	+ 9.8	10736	+ 4.5	
B. Non-Developmental Expenditure*	4289	4749	+ 10.7	5094	+ 18.8	5954	+ 16.9	
C. Repayment of Loans to the Centre	1458	918	- 37.0	1376	- 5.6	1083	- 21.3	
D. Discharge of Internal Debt	178	233	+ 30.9	234	+ 31.5	229	- 2.1	
Of which :								
Market Loans	119	175	+ 47.1	175	+ 47.1	164	- 6.3	
E. Others@	884	227	- 74.3	285	- 67.8	271	- 4.9	
III. Overall Surplus (+) or Deficit (-)								
(I--II)	- 897	- 287		- 651		- 21		

(Table 5.1 Continued)

- NOTES :— (1) Budget Estimates for 1982-83 include the estimated net yield of Rs. 306 crores from additional resource mobilisation measures introduced through the State Budgets and the States' Share of Rs. 53 crores in the Centre's additional taxation measures introduced through the Central Budget for 1982-83.
- (2) Budget Estimates for 1981-82 include estimated yield of Rs. 300 crores from additional resource mobilisation measures introduced through the States Budgets and are adjusted for the estimated decline of Rs. 75 crores in the States' share in the Central Taxes due to tax concessions announced in the Central Budget for 1981-82.
- (3) Figures given here differ from those given in the Bank's Annual Report for 1981-82 due to updating of data.

*Comprise Expenditure on Revenue and Capital accounts and Loans and Advances extended by States.

@Comprise compensation and assignments to local bodies, appropriation for contingency fund and remittances (net).

Figures for Sikkim relate to revised estimates.

SOURCE — *Reserve Bank of India Bulletin*
September 1982, (Statement 3).

TABLE 5.2

BORROWINGS BY STATE GOVERNMENTS AND THEIR INSTITUTIONS

(Rs. Crores)

Items	1980-81 (Accounts)	1981-22 (Revised Estimates)	1982-83 (Budget Estimate)
I. Internal Debt (Net) (i to iv)	152.3	515.7	533.3
(i) Market Loans (Net)	183.7	364.9	395.9
(ii) Ways and Means Advances (including Overdrafts) from the Reserve Bank of India (Net)	-340.7	8.8	73.5
(iii) Loans from SBI and other Banks (Net)	104.0	28.9	-33.7
(iv) Loans from other institutions (Net)	205.3	113.1	97.6
II. Loans and Advances from the Central Government (Net)	1566.6	2050.3	2164.4
III. Provident Funds, etc. (Net)	340.2	432.3	543.0
of which : State Provident Funds (Net)	281.3	422.8	472.1
IV. Total Debt (I + II + III)	2059.1	3048.3	3240.7
V. Market Loans raised by State Electricity Boards (Net)	298.1	389.3	NA
VI. Market Loans raised by State Road Transport Corporation, Housing Boards, Municipal Corporations and others (Net)	77.8	60.9	NA
VII. Market Loans raised by Financial Institutions of State Governments (SFCs) (Net)	35.2	64.1	NA
VIII. Total (V + VI + VII)	411.1	514.3	NA

NA = Not Available

Figures for Sikkim relate to revised estimates.

SOURCE : Reserve Bank of India Bulletin September 1982 (Statement 9)

TABLE 5.3

SOURCES AND USES OF FUNDS FOR THE PROPOSED URBAN FINANCING INSTITUTION

A. Sources of Funds

Type	Source	Cost of Funds	Year				
			1	2	3	4	5
Equity	R.B.I. and other Financial Institutions	—	100	—	—	100	—
Long Term Bonds	Mainly Institutions Public Borrowing	9%	—	50	100	150	300
Loans	Mainly Institutions Banks	12.5%	50	75	100	125	200
Deposits	Local Body Surpluses. Other Agencies	10%	—	20	50	75	100
Total			150	145	250	450	600
Cumulative			150	295	545	995	1595

B. Uses of Funds

(Rs. Crores)

Uses	Years				
	1	2	3	4	5
Long Term Project Loans (Sanctions)	(100)	(200)	(350)	(550)	(800)
Disbursements	30	120	235	395	605
Technical Assistance	0.5	1.5	3	5	5
Fixed Assets	1.5	0.5	0.3	0.5	0.3
Total	32	122	238.3	400.5	610.3
Cumulative	32	154	392.3	792.8	1403.1

APPENDIX

Analysis of Land Development Costs in HUDCO Projects

APPENDIX
Analysis of Land Development Costs in HUDCO Projects

Introduction

1. The land development is increasingly becoming an important factor in all development projects being undertaken by various housing and urban development agencies in different parts of the country. Amongst the various components of land and development costs, the cost of land acquisition often plays an important part. The cost of land acquisition itself varies substantially depending upon the locational advantages and disadvantages, the market forces of demand and supply and the ownership pattern i.e. whether governmental land or private land. Though the cost of land acquisition will determine the intensity of its use, the cost of development for a given site will be determined mainly by the locational factors that influence the cost of trunk peripheral services. Though the cost of land development is not directly governed by the cost of land acquisition, the intensity of the use of the land, determined by the land acquisition cost, influences considerably the cost of land development. Different intensities of land use are often reflected in different physical patterns of development. Impact of different forms of physical patterns of development is studied separately in the second consultancy report prepared.

2. The regional differences in the cost of land development are mainly due to the availability of materials, cost of materials and the cost of labour. In different parts of the country there is no substantial variation in the design procedure adopted for designing the services like water supply, drainage and sewerage. However, depending upon the peculiarities of a site, as well as the policies of the implementing agency, the standards of development are varied and the design procedure suitable to the chosen standards is adopted. Some of these aspects are covered in detail in subsequent parts of the report where variations in level of standards are considered.

3. In order to study the practice being followed by various development agencies towards the land development, it was felt appropriate to study the various schemes sanctioned by Housing and Urban Development Corporation (HUDCO). The main advantage in studying these schemes was availability of data for schemes that are being implemented. By studying the schemes financed by Housing and Urban Development Corporation, it was also possible to cover the different parts of the country.

Selection and Characteristics of Sample for Study of the Land Development Projects

4. As of May 31, 1983, the Housing and Urban Development Corporation has sanctioned about 2373 schemes of different types covering 523 cities and rural areas of 19 States and 4 union territories. The schemes sanctioned by HUDCO are of different types ranging from squatter settlement upgradation schemes to urban housing schemes for hire purchase as well as rental as also co-operative housing and rural housing schemes. As such, it was felt that a representative sample, amounting to about 5-6% of the total projects, may be selected with minimum of 4-5 schemes from each State or union territory.

Sample Characteristics

5. The basic characteristics of the sample selected are determined by the pattern of schemes sanctioned by HUDCO. Such exceptions would only be the States from the North Eastern parts of the country. However, a care was taken to ensure that even from such States at least 2-3 schemes are considered. Similarly, the proportion of schemes in different types of categories (such as EWS, LIG or composite and similar other categories)¹ is also governed by the inflow of schemes in HUDCO.

6. Totally 90 schemes are considered for detailed analysis. These schemes are drawn from the States of Andhra Pradesh (5.5%), Assam (1.1%), Bihar (6.7%), Gujarat (6.7%), Harayana (2.2%), Himachal Pradesh (2.2%), J&K (2.2%), Karnataka (7.75%), Kerala (4.4%), Manipr (1.1%), Maharashtra (7.75%), Madhya Pradesh (6.7%), Orissa (2.2%), Punjab (3.35%), Rajasthan (8.8%), Tamil Nadu (12.22%), Uttar Pradesh (10%), West Bengal (2.2%), and Union Territory of Delhi (6.93%).

¹. EWS Economically Weaker Sections.
LIG Low Income Groups.

7. The schemes considered are spread over a period of 7 years from 1977 onwards with concentration of schemes in years 1980-83. It was felt appropriate that the majority of the schemes to be considered in analysis should be within the last 4 years only. About 68.7% of schemes are from the year 1980 onwards.

8. The schemes received and considered for financing in HUDCO are not normally framed categorywise (EWS, LIG etc.). The schemes framed are normally composite. Therefore, the schemes considered in the sample, if broken categorywise, have large number of schemes in the composite category (67.77%). These are followed by EWS schemes (19%) and MIG schemes (9%). Each scheme is a project and may consist of any number of dwelling units.

9. The size of the schemes considered in the sample is also often important. The size of the scheme can be determined either by the area of the project site in hectares or by the number of units that each project consists. The sample selected indicates that about 4.5% schemes are framed for site areas upto 1 hectare, about 38.9% schemes have site areas between 1-5 hectares, about 21% schemes have site areas between 5-10 hectares, about 16.6% schemes have site areas between 10-15 hectares, about 14.5% schemes have site areas between 15-50 hectares and remaining have site areas about 50 hectares. This indicates that large number of schemes (about 60%) are framed for site areas varying between 1-10 hectares of land.

10. If we consider the size of the scheme by number of units, we find that about 8.9% schemes have dwelling units upto 100, about 26.6% schemes have dwelling units between 300-500, about 20% schemes are in categories with dwelling units between 500-1000 and 1000-3000 while rest schemes having dwellings about 3000. This indicates that about 80% of schemes have dwelling units varying between 100-1000.

Difficulties encountered in Analysis

11. The schemes selected in the sample are normally not framed by the concerned agencies according to the income categories. A higher number of schemes, nearly 67.7%, consist of composite schemes with varying proportion of all the income categories or more than one income categories. Analysis related to income categorywise cost takes into consideration a composite scheme as a scheme belonging to a particular category which dominates the different proportions.

12. State wise averages are irrespective of the size of the scheme. Schemes whether smaller or bigger are compared because of the difficulties of having sufficient number of schemes for comparison purposes in each state according to the scheme size.

13. Similarly, Statewise as well as All India comparisons are not necessarily for the same specifications of land development. However, the minimum land development cost is invariably associated with economic specifications for water supply distribution network, sewerage disposal network etc. These minimum costs are often for low income housing or site and services project.

14. The comparisons are also not necessarily for the same types of terrain conditions. This is also because of difficulties in identifying large number of schemes in each State for similar terrain conditions.

15. Various comparisons in the report are irrespective of the geometric forms of layout.

16. The cost comparisons are for different years. This was inevitable since for any particular year the number of schemes available for comparison purposes in each State were inadequate. However, the cost data for the previous years has been corrected for a standard year 1982.

Analysis of Results

Differential cost as per regional variations

17. Since the data available is Statewise, each State is considered as a region. The data available for the sample schemes in each State was analysed and results are indicated in Table No. A.1. The results are in terms of minimum and maximum costs of land development (in rupees in lakhs per hectare). The Statewise results are also indicated as standard cost of land development. The standard cost has been worked out by averaging the schemes other than the lowest and highest cost schemes or schemes that are indicating extremes of land development cost. The differentiated values are indicated only for the cost of land development.

18. The variation observed in the cost of land development from region to region is substantial. The differentiated cost, with value of one for the state of Manipur, indicates that the highest land development cost is in the state of Haryana with a differentiated value of 4.23. In terms of absolute cost, while the cost development in Manipur is Rs. 1.37 lakhs per hectare, the same in Haryana is about Rs. 5.79 lakhs per hectare. As indicated earlier, the regional variations are largely because of the cost of materials, labour, availability of materials as well as the regional norms and standard of specifications followed. If the differentiated values of the standard cost of land development are grouped in 3 categories according to range of variation, we find that about 8 states fall in the differentiated value category of between 1-1.5 while 6 states fall in category of differentiated values between 1.5-2 and rest are in category of differentiated value of 2 and above. This means that in the majority of the states, cost of land development is primarily varying between Rs. 1.37 lakhs to Rs. 2.67 lakhs per hectare. Extreme cases of land development cost are found primarily in the states of Haryana (Rs. 5.79 lakhs per hectare) and Delhi (Rs. 4.956 lakhs per hectare) .

19. In each state, depending upon the specifications followed, the range of land development cost per hectare differs substantially. For example, in the Union Territory of Delhi, the minimum cost of land development is Rs. 3.6 lakhs per hectare.

Project Density and Land Development Costs

20. The above study has been done on All India basis. The project density is a major factor which affects the cost of land development per hectare. It is often found that the cost of land development for lower ranges of density is more uneconomical. The variation in the cost of land development is normally not proportionate to the density variation. Table A.2 indicates that at minimum level, medium density ranges are more economical while at maximum level higher density ranges are more economical. At average or higher level, lower density ranges are economical in terms of per hectare cost of land development but are positively uneconomical when interpreted in terms of per capita cost. At all the three levels of land development, i.e., minimum, maximum and standard, per capita cost is always higher for lower density range (0-499 persons per hectare); as the density range increases, the per capita cost falls except in case of minimum cost for the medium density range (500-999 persons per hectare).

Citywise Average Development Cost

21. Contrary to expectation, no systematic variation is found in land development costs according to city size. The costs are found to vary much more according to particular site characteristics in terms of terrain, standards, use etc.

Income Categorywise cost per hectare and per capita cost

22. The cost per hectare in respect of different income category housing follows the usual increasing trend. Similarly, per capita cost has also an increasing cost trend per capita except in case of MIG scheme at maximum and EWS general housing at minimum. But this is on account of density levels followed. The details are given in Table A.4.

Proportion of Infrastructure cost components in relation to total cost of land development

23. The proportion of different components of development cost will vary considerably from project to project as well as from region to region. This happens largely because of the different standards of development desired, availability of trunk services on the periphery of the project site, the terrain conditions and the physical design of the project. Table No. 5 will indicate the proportion of different components of land development for the standard per hectare cost of land development arrived for all states (as indicated in Table No. A.1). Table A.5 indicates a wide range of variation in each component of land development. The levelling and dressing component varies from 0.32% to 14.64%. The importance of this component depends on the conditions of the soil as well as the terrain. The percentage of this component increases in case of low lying lands as well as hilly areas where considerable amount of cutting and filling is involved. The percentage of cost under roads varies from 12.79% to 34.25% of the total project cost. The cost of roads is directly related to the physical planning components and the norms of width for roads followed by different agencies in different parts of the country. The cost under water supply component varies from 10.43% to 34.47% depending upon the availability of trunk lines to the periphery of the project site, the standard of development proposed i.e. whether community taps or individual taps etc. Similarly, the cost of sewerage also varies between 3.2% to 39.06% of the total project cost. The cost of sewerage again depends on the intensity

of use and the availability of trunk lines for disposal. The standards of development proposed, such as individual septic tank, community septic tanks, bore-holes latrines, use of oxidation ponds or a regular treatment plant for treatment and disposal of sewerage etc. The component of storm water drain varies from 6.16% to 16.95%. The component of arboriculture varies between 0.59% to 6.65% and the component of external electrification normally depends upon the policy of the State Electricity Board which has the monopoly for electricity distribution system. The extreme cost of 55.89% in the case of external electrification was observed only in Delhi where the cost of sub-station is also included and higher specifications are followed. Minimum percentage observed has been 3.82%.

Minimum and maximum costs of land development and its relation to the project parameters as well as specifications of different components of land development

24. The lowest cost of land development (Rs. 0.684 lakhs per hectare) has been observed in one scheme from Tamil Nadu. Though the site is irregular in shape there is no network for water supply and for that individual handpumps are provided. The sewerage line network is also not required since the system is of individual borehole disposal. Therefore, in this scheme the cost of roads incurred is higher relatively and is 61.96% of the total cost.

25. The maximum higher cost of land development has been observed in a scheme from Haryana and is Rs. 10.69 lakhs per hectare. Though the site is regular in shape the reasons for such high cost of land development is attributed to the provision of regular sewer line network and oxidation pond, water distribution network, tanks and pumping arrangements etc. The cost incurred in the components of water supply, sewerage and storm water drain is as high as 80.16% of the total infrastructure cost in this scheme. The cost incurred in site levelling and dressing and for roads is 19.84%. It may be noted that there is no cost of arboriculture and external electrification in this scheme and the reason might be that the work of external electrification was undertaken by the State Electricity Board separately.

Impact of terrain conditions on development cost

26. It has been observed that in certain schemes the contour difference encountered are in the order of 2 mts., 3.5 mts, 5 mts, 6 mts, 7 mts, 8 mts, 9 mts, 10 mts, 13.5 mts, 14 mts, 20 mts, 21 mts and 30 mts. The effect of such contour difference when related to infrastructure cost indicates no noticeable increase in the overall cost of land development per hectare. This is understandable since unless the contour difference involves considerable amount of cutting and filling, the cost does not increase. On the contrary, substantial contour differences have some advantages if the terrain conditions are exploited properly for the design of services, in terms of reducing the cost of surface drainage and sewerage. Similarly, if the overhead tank is located on the higher contour, the distribution cost of water supply network also goes down.

27. On account of terrain, the cost of land development goes up only in cases where the site is low lying and involves considerable earth filling as well as consolidation work. This was seen in some schemes in West Bengal, Tamil Nadu and Maharashtra where the percentage of expenditure on levelling and dressing component was excessive (refer table No. A.5).

On-site/off site infrastructure cost relationship

28. The relationship between on-site and off-site cost shows that there is no universally applicable pattern of linkage. This is so as ratio of on-site and off-site infrastructure cost varies from location to location, project to project and institution to institution as per their costing policies in vogue.

29. Further, it is difficult to get correct cost data as the cost sharing is normally laid down by the Government or is evolved at local level between the participating agencies which finance or co-finance or at least coordinate implementation of projects. The cost sharing or cost attribution to each project or to *interse* share of each of the participating agency.

30. Further, inter-project variations occur in relationship of on-site and off-site infrastructure costs at some places due to the fact that the planners just do not attribute the entire cost of trunk lines to a project, especially if it is an EWS scheme. Instead, they operate quite a complex system of staggering the recovery of these costs to various projects which come in the range of benefit. For example,

in case a new area is developed by the development agency, it does not appropriate the trunk lines costs to the first project. This is done with a view to have an equal sharing of cost by all the potential schemes that will come up on account of extension of trunk lines. In cases where first project was an EWS scheme, in most of the cases no cost was attributed. Though over a period of time the total cost of infrastructure was recovered on area level.

31. In some projects the housing agencies did not even incur any off-site cost for water supply etc. Instead, solutions like bore wells, tube wells, hand pumps etc. were adopted as water supply solution.

32. Because of the above and any many more reasons, it is difficult to suggest any range of relationship between on-site and off-site infrastructure cost. However, based on the project sample and the experience of HUDCO the *inter-se* on-site/off-site relationship in case of a normal project at a normal location and in normal conditions of cost is 75:25 i.e. out of total infrastructure cost of say Rs. 100, Rs. 75 were for on-site infrastructure and Rs. 25 for off-site infrastructure cost.

Conclusions

33. The cost of land development depends on number of factors. These factors can be broadly categorised as follows:

- (i) Policy based
- (ii) Locational
- (iii) Prevalent design norms
- (iv) Prevalent construction cost
- (v) Efficiency of implementation, and
- (vi) Acceptability of the systems proposed

Policy based factors

34. The systems evolved are in many cases dependent upon the affordability considerations. Where the cost reduction is of paramount importance the variable as well as growing infrastructure development standards are adopted. For example, for sewage disposal borehole latrines may be adopted which will not need any system for collection of sewage and its treatment as well as disposal. Similarly, in case of water supply, individual hand pumps on the plots allotted can be provided. In both these cases, adoption of such options primarily depends on the soil conditions and water table. An intermediate standard of development in such cases could also be provision of community water supply standposts as well as community toilets for sewage system, where in either cases only a partial pipe network system is required. Similarly, there could be option in terms of providing septic tank individually or for a community for disposing the sewage. In such cases there will be practically no site infrastructure costs.

35. The policy based options, therefore, primarily deal with the different standards of services which an agency decides to provide to the beneficiaries. Where such lower standards are decided as a matter of policy, the cost of land development is obviously lower.

Locational factors

36. The second set of factors affecting the cost of land development primarily arises out of the site locations and conditions. These are the factors which one cannot change and have to be incorporated in the design system to be proposed and as such have a determining impact on the overall cost of land development. Terrain conditions i.e. contour difference, nature of soil strata, low lying area, rainfall, availability of main trunk lines for water, sewage disposal and electricity or in its absence a nearest source for water as well as for disposal of drainage and sewage such as nalla and presence of restrictive features like oil and gas pipe lines and ridges or valleys are the locational factors that will affect land development costs.

Prevalent design norms

37. The land sub-division system itself substantially affects the cost of land development. The land sub-division is again dependant on the Municipal bye-laws, town planning act and other similar statutory regulations as well as codes. The actual design of services is normally governed again by the

Municipal bye-laws and regulations as well as different codal practices which determine the specification of materials to be used as well as sizes of different components of the infrastructure systems.

Prevalent construction cost

38. The regional variations in the case of land development primarily arise out of different construction costs prevailing in different regions. These construction costs again are result of local availability of building materials as well as skilled labour and the cost of both.

Efficiency of implementation

39. The cost of land development will again depend on different implementation systems adopted. For example, some organisations may execute the entire work through employing departmental labour and direct purchase of materials etc. than operate through the contract system. In this study, no analysis has been made for this factor. It is, however, experienced that the departmental execution may prove to be economical over the normal construction system.

Acceptability of the systems proposed

40. This factor has a number of socio-economic implications. The socio-culture background of the ultimate users often determine the system to be proposed. There are examples where the users cannot afford a regular system for sewage, borehole latrines or their improved versions proposed have been rejected by the users, forcing the authority to provide a regular system which is costlier. On the other hand, there are examples where, though a useable toilet was provided within the affordable cost, because of the socio-culture background the users preferred to use toilets as storage place and use the open fields alternatively.

41. The efficiency of the ultimate design to be proposed, though depends on the factors enumerated above, where affordability considerations are important, one can propose a system of providing incremental infrastructure service system. Such a system can initially begin with minimum necessities and can subsequently grow into a fullfledged system as and when such a system becomes affordable.

Summary

42. To summarise, some of the main results of the analysis are—

- (a) The regional variations in cost of land development depend on number of factors. In terms of absolute cost of land development, the costs vary between Rs. 1.37 lakhs to Rs. 2.67 lakhs per hectare in majority cases.
- (b) The cost of land development per hectare interpreted in terms of per capita cost is always higher for lower ranges of density (table No. A.2).
- (c) There is no definite pattern of the cost of land development in terms of the size of the town since the land development cost depends largely on the locational factors.
- (d) The cost of land development is lower for low income housing only where lower standards of infrastructure development are adopted.
- (e) The percentage distribution of different components of land development cost again varies depending upon the locational factors and other considerations. However, the roads water supply and sewage account for the bulk of the cost and each varies in range, from 13% to 35% of the total cost.
- (f) The minimum and maximum costs of land development are primarily determined by the standards of infrastructure services to be provided. The cost as low as 0.684 lakhs per hectare is possible where piped network system for water supply and sewage are kept to the minimum or are avoided.
- (g) The cost of development on account of terrain conditions is higher where the considerable amount of cutting and filling is involved. The lands with substantial contour difference need not necessarily lead to a higher cost of land development. In case of low lying lands, the cost of levelling and dressing can be to the extent of 15% of the total cost of development

Table No. A. 2

Density ranges and cost of land development

Density range	Minimum		Maximum		Standard	
	per hect (Rs. lakhs)	per capita (Rs.)	per hect (Rs. lakhs)	per capita (Rs.)	per hect (Rs. lakhs)	per capita (Rs.)
0-499	0.604	345.14	10.679	1462.87	2.01	651
500-999	0.395	65.4	8.725	1104	2.627	386
1000 and above	0.901	80.44	3.944	292.15	2.544	182

Table No. A.3

Development cost per hectare by city size

Population range	Cost per Hectare (Rs. in lakhs)	
	At minimum Level	At maximum Level
Below 50-000	2.121	2.239
50-000 to 1 lakh	1.404	1.509
1-5 lakhs	1.953	2.689
5-10 lakhs	1.446	1.849
10 lakhs & above	2.226	3.559

Table A.4

Income categorywise cost per hectare and per capita cost (All India)

(Based on Sample Schemes of HUDCO; etc.)

Income Category	Cost per Hectare (Rs. lakhs)		Per capita cost (Rs.)	
	Minimum	Standard *	Minimum	Standard
EWS (Core Housing)	1.31	1.31	187	187
EWS (General housing)	0.88	2.65	71	627
LIG	1.288	3.02	230	286
MIG ¹	1.722	1.80	681	188*
HIG ¹	1.532	2.044	1065	427

*At a high density of 957 persons per hectare.
'Standard' denotes Maximum

1. M.I.G. Middle Income Group

H.I.G. High Income Group

Table No. A.5

Percentage Distribution of different Components of Land Development Costs

State/U.T.	Levelling & Dressing	Roads	Water Supply	Sewerage	S.W. Drains	Arboriculture	External Electrification	Total
Andhra Pradesh	0.95	25.25	34.47	18.97	9.67	2.38	8.31	100
Bihar	9.43	34.25	17.42	16.69	13.50	2.90	5.81	100
Gujarat	3.47	12.79	33.07	22.93	10.95	3.85	12.94	100
Karnataka	0.48	20.05	17.31	39.06	9.72	5.62	7.76	100
Maharashtra	11.27	23.14	19.42	22.68	9.40	4.04	10.05	100
Madhya Pradesh	1.78	25.56	23.85	19.25	16.70	4.34	6.92	100
Punjab	9.65	18.46	28.26	29.36	4.60	4.00	5.67	100
Rajasthan	1.61	23.69	17.75	21.55	16.95	6.65	11.80	100
Tamil Nadu	12.97	15.85	30.28	25.24	8.38	3.46	3.82	100
Uttar Pradesh	4.01	22.21	21.06	26.42	8.62	5.92	11.76	100
West Bengal	14.64	18.54	18.57	20.85	7.05	2.83	17.52	100
Delhi	0.32	13.41	10.43	13.20	6.16	0.59	55.89	100



TASK FORCES ON HOUSING AND URBAN DEVELOPMENT

III

MANAGEMENT OF URBAN DEVELOPMENT

PLANNING COMMISSION
GOVERNMENT OF INDIA
NEW DELHI

SEPTEMBER 1983



**TASK FORCES
ON
HOUSING AND URBAN DEVELOPMENT**

**III
MANAGEMENT OF URBAN
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PLANNING COMMISSION
GOVERNMENT OF INDIA
NEW DELHI
SEPTEMBER 1983

COMPOSITION OF THE TASK FORCE

Chairman

SHRI K.C. SIVARAMAKRISHNAN : Govt. of West Bengal, Calcutta.

Members

SHRI M.N. BUGH : Director, National Institute of Urban Affairs.

SHRI KALYAN BISWAS : Secretary, Industrial Reconstruction, Govt. of West Bengal.

PROF. MANZOOR ALAM : Director, Area Study Centre, Osmania University, Hyderabad.

SHRI H.M. SINGH : Vice-Chairman, Madras Metropolitan Development Authority, Madras.

Member-Secretary

DR. RAKESH MOHAN : Senior Consultant, Planning Commission.

CONTENTS

	Page
Preface	iii
Summary of Findings and Recommendations	ix
I. New Imperatives and Key Issues in Urban Management	1
II. The Role of Local Authorities	3
III. Management Tasks at the City Level	7
IV. The Management of Metropolitan Cities	11
V. Management Tasks at the State Level	17
VI. Personnel Development for Urban Management	29
Appendix I—Functions of Urban Local Bodies	24
Appendix II—Operation of the Urban Community Development Programme in Hyderabad.	31

P R E F A C E

The Planning Commission held a special ad-hoc meeting on June 26, 1982 called by Dr. Manmohan Singh, then Member-Secretary, Planning Commission, to discuss a background paper "The Strategy for Housing and Urban Development : Some New Perspectives" which had been prepared in the Commission¹. The main result of this meeting was the setting up of four Task Forces on different aspects of housing and urban development :

1. Planning of Urban Development
Chairman—Professor Asok Mitra.
2. Financing of Urban Development
Chairman—Professor Raja Chelliah.
3. Management of Urban Development
Chairman—Sri K.C. Sivaramakrishnan.
4. Shelter for the Urban Poor and Slum Improvement
Chairman—Sri L.M. Menezes

Member-Secretary of all the Task Forces—
Dr. Rakesh Mohan, Senior Consultant, Planning Commission.

The setting up of the Task Force on "Management of Urban Development" is significant in that this is the first time ever that an official committee has been set up to examine various aspects of management of urban development in this country. There have been various other committees, working groups and task forces which had been sponsored at the official and non-official levels to look at different facets of urban planning and development in the country wherein urban management tasks have mainly been considered as a residual aspect rather than as an important activity by itself. A perusal of all these reports would show that management responsibilities and functions were taken for granted as if these would somehow be available and attainable rather than as something which needs to be approached and attended to as an independent tool of intrinsic merit.

In this Report, therefore, considering its pioneering character, we have dealt with concepts and issues in a selective manner and have simultaneously attempted to relate these to the practices and principles as hitherto available in the country. In our Report there are statements of emphasis rather than explicit choices; we have talked about management issues in areas, which according to our opinion, are of importance and priority, indicating the opportunities and the scope of intervention available. Since local authorities and urban management are matters which belong to the State Government in this country, we have attempted to sketch a policy role of the State Governments in an increasingly complex and problematical inter-institutional area. We have

¹ Further details of this meeting are given in the Report of the accompanying Task Force on "Planning of Urban Development"

mainly dealt with policy and strategy but have not pronounced any policy prescription as such since urban areas and local conditions vary so widely from area to area and State to State.

In that sense only, the Report is not as comprehensive as one would have liked it to be; due to constraints of time and space, we have been forced, at many places, to highlight issues only, and to resist the temptation to deal more extensively with the questions raised. Yet it is strongly felt that that being the first Report of its kind, it will not have ignored any important and relevant aspect which bothers urban managers of the country today.

The notification setting up this Task Force along with its composition and terms of reference is given in Annex. P. I. The Task Force on "Management of Urban Development" was constituted with Sri K. C. Sivaramakrishnan, currently Secretary, Department of Environment, Government of West Bengal, as Chairman. He has had by experience in the management of urban development having been Member-Secretary of Calcutta Metropolitan Development Authority earlier and Urban Management Adviser to the World Bank more recently. All the other members have had wide experience in the management of cities or in research related to city management. All members of the Task Force were very generous in finding time voluntarily from their busy schedules for the work of this Task Force. Their dedication to this work is indicated by the fact that all members attended all the five meetings that were held in a space of six months.

The term of the Task Force was originally fixed upto June 15, 1983 but was extended upto September 30, 1983. This report is being submitted within the stipulated time.

Professor A. M. Khusro, Member, Planning Commission, inaugurated the work of the Task Force on February 15, 1983. The Task Force held four additional meetings : April 12, June 8 and 9 (in Hyderabad), July 28 and 29 (in Madras) and September 9, 10 and 11, 1983 (in Indore and Mandu, Madhya Pradesh). The meeting in Hyderabad was held in order to observe the working of the Hyderabad Urban Community Development Programme and that of the Hyderabad Urban Development Authority. Similarly, the Task Force met in Madras to get the benefit of the experience of the Madras Metropolitan Development Authority as a largely non-executing planning and coordinating authority.

Background papers were prepared for the Task Force on different topics and issued in the "Urban Development Task Force Papers" series.

M.1 Kalyan Biswas

"Urban Development Management Tasks at the State Level":

M.2 T. Rajagopalachari

"Decentralisation of Urban Management in Large Cities : Replication of the Hyderabad Urban Community Development Pattern".

M.3 K.C. Sivaramakrishnan

"Tasks for Metropolitan Management : An Outline"

M.4 National Institute of Urban Affairs

“Role of Local Authorities in the Management of Towns and Cities in India”.

Paper M. 4, mentioned above was prepared by the National Institute of Urban Affairs on a research grant of Rs. 18,000 given by the Planning Commission for this purpose.

All members of the Task Force have contributed to the work of the Task Force. At the outset, the Task Force would like to express its gratitude to Professor A. M. Khusro, Member, Planning Commission, for having taken detailed interest in the work of the Task Force and for his support and participation in its meetings. Professor Khusro attended the Hyderabad meeting and made intensive field visits to observe the work of the Urban Community Development Programme in that city. The Task Force is also grateful to Sri K.V. Bhandarkar, Person-in-Charge, Hyderabad Urban Development Authority for hosting the Hyderabad meeting and giving his time generously in participating in the deliberations for full 2 days. Dr. T. Rajagopalachari, the Director, Urban Community Development, Hyderabad Municipal Corporation, not only made arrangements for field visits and participated in the meetings of the Task Force, but also found time to submit the paper M. 2 mentioned above, excerpts from which are attached to this report as Appendix II. His life-long dedication to the work of urban community development in Hyderabad is reflected in his enthusiastic participation in the work of the Task Force. We are fortunate that we were able to receive the benefit of his experience. The Task Force is also grateful for Professor Waheeduddin Khan, Director, Centre for Economic and Social Studies, Hyderabad, and Member of the Task Force on “Planning of Urban Development” for having attended the Hyderabad meeting and for his hospitality.

Sri H. M. Singh, Vice-Chairman, Madras Metropolitan Development Authority, and member of this Task Force arranged the III Meeting in Madras. The Task Force appreciates his hospitality along with Sri Murugraj, Member-Secretary of M.M.D.A., who took great pains for making arrangements for the meeting. Sri M. N. Buch kindly agreed to host the first and second meetings of the Task Force in the National Institute of Urban Affairs (as its Director) at New Delhi and as Secretary, Government of Madhya Pradesh the final meeting in the Sylvan surroundings of the historic city of Mandu in Madhya Pradesh. The Task Force would also like to express its thanks to Sri C.V.S. Mani, now Vice Chairman, Madras Metropolitan Development Authority, for having taken the time to attend the final meeting as a special invitee. Finally, a special word of thanks must go to Dr. Rakesh Mohan, Member-Secretary of the Task Force, for his persistent “management” of the Task Force which enabled its work to be finished in a short space of 7 months. Able secretariat assistance has been provided by Sarvashri B. K. Khera, B. C. Sharma, Dr. Jagjit Singh and others help by Sarvashri Setia, Krishan Gopal and Hari Singh Yadav, all of the Planning Commission.

APPENDIX P.1

No. PC/H/1/9/82
Government of India
Planning Commission
(Housing, Urban Development & Water Supply Division)

New Delhi
January 25, 1983

In order to examine issues related to the Strategy for Housing and Urban Development the Planning Commission has decided to appoint four Task Forces so that policies and programmes in this field may be formulated with a proper perspective in the Seventh Five Year Plan.

2. The task forces are as follows :

- A. Task Force on Planning of Urban Development
- B. Task Force on Financing of Urban Development
- C. Task Force on Management of Urban Development
- D. Task Force on Shelter for the Urban Poor and Slum Improvement .

The composition and terms of reference for each task force are given in the Annexures 'A' to 'D'.

3. Non-official members of the Task Forces shall be entitled to TA/DA as permissible to Grade-I officers of the Government of India and will be paid by the Planning Commission. TA/DA to official members will be paid by their parent department.

4. The Task Forces are requested to furnish their final reports to the Planning Commission by June 15, 1983.

5. All correspondence to these Task Forces may be addressed to Dr. Rakesh Mohan, Consultant, Planning Commission, New Delhi.

Sd/-
(K. C. AGARWAL)
Director (Administration).

1. Chairmen of Task Forces (by name)
2. Members of the Task Forces (by name)

Copy for information to :—

1. PS to Dy. Chairman
2. PS to Member (F)/(H)/(M)/(K)
3. PS to Secretary
4. All Heads of Divisions
5. Admn-I
6. Accounts-1
7. General Branches I & II

Sd/-
(K.C. AGARWAL)
Director (Administration).

(x1)

No. PC/H/1/9/82

Government of India

Planning Commission

(Housing, U.D. & Water Supply Division)

Yojana Bhavan,

New Delhi, 2 July, 1983

In pursuance of Planning Commission Office Memorandum of even number dated 25-1-1983 regarding the Task Forces on (a) Planning of Urban Development, (b) Financing of Urban Development, (c) Management of Urban Development and (d) Shelter for the Urban Poor and Slum Improvement it has been decided to extend the term of these Task Forces till the 30th September, 1983.

Sd./-
(K.C. AGARWAL)
Director (Administration):

1. Chairmen of Task Forces (by name)
2. Members of the Task Forces (by name)

Copy for information to :—

1. PS to Dy. Chairman
2. PS to Member (F)/(H)/(M)/(K)
3. PS to Secretary
4. All Heads of Divisions
5. Admn-I
6. Accounts-I
7. General Branches I & II

Sd./-
(K.C. AGARWAL)
Director (Administration)

MANAGEMENT OF URBAN DEVELOPMENT

The size of almost all towns and cities in the country is expected to increase in the foreseeable future. Accompanying this increase in size the problem of managing these cities is likely to become more and more complex requiring changes in the mode of their management. The task Force is therefore expected to frame the key issues in the management of cities as they may be expected to evolve over the next 15 years.

The terms of reference for the task force are :—

1. To assess the existing role of local authorities in the management of towns and cities. This would include a critical review of their responsibilities and functions as expected and how they are discharged in practice.
2. To examine the relationship between local authorities and urban development authorities and suggest guidelines for clearer demarcation of their role in urban management.
3. To suggest the directions in which the management of urban development may be improved over the next 15 years. This may include specific consideration of urban development maintenance measures and measures to strengthen local authorities.
4. To examine the feasibility and desirability of the decentralisation of urban management in large cities. This may include specific consideration of a wide-spread urban community development programme.
5. To examine the existing systems for training in urban management and suggest measures for their improvement.

The members of the Task Force will be—

1. Shri K.C. Sivaramakrishnan —Govt. of West Bengal, Calcutta.
—Chairman.
2. Shri M.N. Buch —Director, National Institute of
Urban Affairs.
—Member
3. Shri Kalyan Biswas —Secretary, Industrial Reconstruction,
Govt. of West Bengal.
—Member.
4. Prof. Manzoor Alam —Director, Area Study Centre,
Osmania University, Hyderabad.
—Member.
5. Dr. Rakesh Mohan —Senior Consultant,
Planning Commission,
—Member-Secretary.

Shri H.M. Singh, then Vice-Chairman, Madras Metropolitan Development Authority, was also appointed Member of the Task Force after the first meeting.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

I. Role of Local Authorities

1. The role of local authorities is central to any discussion or programme of urban management. Nevertheless in the past two decades, their role has been undermined without serious consideration of the implications of this nor of alternatives.

2. In recent years even the obligatory functions of local bodies have been taken away in many cases and assigned to state level bodies.

3. In the interest of responsiveness to public needs, efficiency in service distribution, accountability, financial responsibility, local participation and benefit of local knowledge, obligatory functions should be reverted to municipalities. These include the provision of water supply, sewerage, drainage, street lighting, maintenance of roads, conservancy, markets, community services, etc.

4. The responsibility for capital works should go together with operation and maintenance of services except for those services whose provision has to be inter-jurisdictional.

5. Spatial Planning at the local level should also be a municipal function but within the framework of an overall perspective plan.

6. The assignment of functions should be part of a package to strengthen local authorities' capabilities including structural reform, improvement of internal management and financial viability.

7. Measures to improve the tax-base and tax-management along with a dependable system for devolution of finance should thus be part of the package.

8. The practice of frequent and long supersession of municipalities strikes at the very root of the system. If supersession is resorted to in extreme cases, the programme for the required reform should be initiated immediately and elections to be held within a specified period, say 6 months to one year, should be announced simultaneously.

II. Urban Development Authorities

9. Urban Development Authorities are not necessary for evolving functions assigned to municipalities. UDAs may only be justified in urban areas consisting of several municipal jurisdictions adjoining another. These would be metropolitan or pre-metropolitan situations. Here, apart from the municipal functions there are a number of other functions of planning, investment, regulation and promotions which may call for such development authorities.

10. Statutory and special purpose authorities like water boards or sewerage and drainage boards for intra-municipal purposes should be similarly discouraged. If these are needed because of technical requirements, it should be examined whether such bodies can function as subsidiaries to the municipality responsible to them.

11. In case of industrial and other new townships, the practice of running them as company townships should be given up. Each of these townships should either be merged with the rest of the city or brought under a single municipal authority.

12. There are over 60 urban development authorities now: of these 10 are in metropolitan cities and the rest are in other mostly Class I cities do not currently have urban development authorities. The need for them should be examined carefully in each case. The municipalisation of urbanising areas is important for expanding cities.

III. Metropolitan Cities

13. At present, there are 12 cities with a population of more than 1 million, which are usually referred to as metropolitan, namely, Calcutta, Bombay, Delhi, Madras, Bangalore, Hyderabad, Ahmedabad, Poona, Nagpur, Lucknow, Kanpur and Jaipur. All these cities except Poona and Nagpur have urban development or metropolitan development authorities. Another 8 cities are now expected to have a population exceeding one million by 1991.

14. No uniform model is feasible for all the metropolitan cities. The substantial difference in approach and organisational pattern of the existing metropolitan authorities indicates this.

15. Opportunities exist for consolidation and extension of local authority boundaries within metropolitan cities. This will reduce the problem of fragmentation and bring local authority jurisdiction within a metropolitan fabric.

16. However, in metropolitan cities, apart from municipal functions, several important non-municipal functions have to be provided and coordinated, such as, transport, telecommunications, public safety, higher education, milk supply, etc.

17. A metropolitan level organisation such as a metropolitan planning authority or commission is necessary for performing certain metropolitan level tasks which municipal bodies and functional bodies cannot do. These tasks are strategic planning for development, capital budgeting and programming, coordination of development programmes and policies and monitoring evaluation. The municipal and functional bodies within the metropolitan cities should be responsible for the production of services, assessment of needs, identification of projects and their execution and maintenance.

18. The metropolitan level organisation also has a substantial role in the mobilisation of resources by supplementing the efforts of municipal and functional bodies in this respect and by advocacy for additional resources from higher levels of government.

19. The structure of the metropolitan level organisation may vary from one metropolitan city to another. It should have the necessary statutory backing for capital programming and budgeting. Representation from the various governments, municipal and functional bodies working in the metropolitan area and from expert groups will be necessary for the metropolitan organisation to perform its apex and coordinating role.

20. In addition, the metropolitan level organisation should assist municipal and functional bodies in removing various constraints to their functioning through suitable technical assistance.

21. This metropolitan level organisation has a special role in the promotion of economic growth and the removal of any constraints to such growth.

22. It is crucial that in the State Development Plan a Metropolitan Sub Plan is presented as a distinct head. Investment in the metropolitan area should be subject to clearance by the metropolitan planning organisation. The creation of such a separate development budget head will also enable better monitoring.

IV. Decentralisation of Urban Management

23. The experience with Urban Community Development in Hyderabad and a few other cities has demonstrated that it is a useful approach for providing community services with grass-root participation in their planning and maintenance. However, the programmes have not attained financial self-sufficiency.

24. The U.C.D. approach can be adopted for decentralised delivery of certain types of community services and, therefore, is recommended for widespread adoption.

25. UCDs should also serve as intermediary organisations between the people and city authorities in the provision, monitoring and cost recovery of public services.

V. Role of the State Government

26. State Governments have a vital role in urban management. Though urban growth projections and physical planning exercises have been made in some states, urban development strategies and state level urban policies have been non-existent.

27. Such a policy or strategy exercise will have to be suitably integrated with overall planning for the state and must be periodically updated.

28. Urban Planning will cover a much wider area than mere physical planning and will need a strong injection of urban economics, sociology, urban geography and regional planning. The state directorates of town and country planning will have to be reorganised and strengthened to this effect.

29. In regard to municipal and other urban bodies, the state government has a number of responsibilities such as providing legislative support, the regulation of their activities, coordination and assistance in their management development.

30. Financial support to the municipal and other urban authorities is a critical function of the State Government. This includes the planning and provision of funds not only for the current expenditure but also for the development budget. The constitution of a Municipal Finance Commission on a periodical but regular basis is recommended as an essential mechanism in this regard.

31. At the State Government level one administrative department such as the urban development department or the local government department should function as the nodal department for the crucial tasks of evolving state urbanisation strategies.

32. It is important that the development budget head for urban areas is not confined to municipal infrastructure items only but should also include items like urban transport, power, communication which are distinct and identifiable for specific urban areas.

VI. Personnel Development and Training

33. Scales of pay, conditions of service and career development require that key positions in municipal bodies and urban development authorities should be comparable to similar positions in the State Governments. Setting up of a State Cadre for positions like Chief Officers, assessment officers, engineers, health officers, etc. is recommended.

34. Training needs of local authorities and metropolitan authorities, need to be assessed systematically and provided for.

35. Training and orientation courses should include all levels of municipal staff as well as members of the elected municipal leadership.

36. Special programmes should be undertaken for the training of trainers.

37. The content of training should focus on upgrading of skills as also the broadening of the work context.

38. There is scope for utilising existing training organisation in these efforts.

I. NEW IMPERATIVES AND KEY ISSUES IN URBAN MANAGEMENT

1.1 In India, urban management is usually understood to begin and end with organising and undertaking, planning, programming and implementing the physical/civic facilities e. g. water supply, drainage, roads, conservancy etc. These are substantial works by themselves and if these are performed at a satisfactory level, it alone would call for plandits. Due to pressures to urban growth, however, other ingredients are increasingly being perceived as important elements in urban management. For instance, it is now being understood that urban management should aim at improving livability at affordable costs, improving infrastructure and environment to improve the quality of life, improving the level and distribution of goods and services, and achieving spatial efficiency. etc. More specifically, the new imperatives of urban management which can be identified at present are :

- (i) Organising and coordinating transport, power, communication and industrial location;
- (ii) Organising activities for expansion of income and employment opportunities;
- (iii) Organising measures to ensure and enhance environmental and other elements in the quality of life;
- (iv) Organising measures to develop an institutional frame work, and capability, and
- (v) Organising the urban political system to respond to the changing needs and challenges.

1.2 The predominant trend in the discussion of urban management of the local authorities in this country has been to work at the organisational structure for management in the local Government rather than to the *processes of management and policy formulation* which the structures are designed to sustain. The demand for the reform of the municipal bodies in the country could as well have concerned itself with remedying the inadequacies of the management systems in the local Government and the improving the process of development plan-making at the municipal level, But this has not happened. As a result the search for effective local authority management and the movement towards improved urban planning have moved away from one another. Two consequences have arisen from this situation :

- (a) apparently sound and consistent institutional arrangements appear to be somewhat superimposed with some amount of a scriptive value attached to them on a particular socio-political milieu which has been taken as given, and
- (b) the most carefully prepared urban development programmes have foundered on the rocks of institutional incapability and management deficiency.

1.3 This has also resulted in a further confusion in so far as no distinction is usually made between problems which exist in urban areas and problems which exist by virtue of the inadequacies of the management structure of those urban areas.

1.4 Basically therefore what we are talking of are three management tasks; one of external or structural improvement of the local bodies and other urban authorities; the second of process improvement of the internal working of these entities; and the third of system improvement of the inter-institutional milieu of a whole range of state, sub-state and other local level bodies which share the same urban space, and influence the working of the core local body.

1.5 Taking the first and the second, i.e. the external and internal improvement of the urban bodies, the relevant issues are, inter alia,

- (a) the suitable organisational structure for the given urban area;
- (b) rationalization of geographical jurisdiction;
- (c) management of resources—economic, social political and human—for optimum results;

- (d) logistical aids necessary for management capacity development ;
- (e) the procedures and practices that would be necessary for communication and coordination.
- (f) the measures to be taken for city planning at the local level.

1.6 At the inter-institutional level, the specific issues would include :

- (i) relationships between government structures—how the tasks and functions are to be allocated;
- (ii) the specific roles to be assigned to the local bodies vis-a-vis others ;
- (iii) in what way(s) popular participation and representation will be ensured ;
- (iv) measures to be taken for big and metropolitan cities, and also new townships and rapidly growing towns;
- (v) whether state-wise urban policy will be available for guiding further growth.

1.7 The advantage of listing these issues at these two stages is to indicate the *levels* at which the activities will have to be mainly formulated and carried out—city/urban and state levels. These tasks are inter-related, and can indeed be overlapping at times ; but this kind of splitting helps in the perception.

1.8 There are two critical areas where specific administrative improvements are necessary in the urban local bodies, especially in the Corporations and the bigger municipalities. One is the development of effective means of making and implementing policy. The other is the achievement of a management of resources with special regard to staff controls and development. In more specific terms, action on policy formulation would include :—

- (i) A review of management information requirements, the availability of data and development of a suitable information system ;
- (ii) The establishment of a policy analysis unit and the selection and training of staff for this work ; and
- (iii) The establishment of a project management and implementation team and the selection and training of staff for this work;

1.9 The action on managerial control will specifically include :—

- (i) The allocation of duties and the responsibilities of each element of the new managerial structure ;
- (ii) The review and adoption of duties and responsibilities within the existing Corporation structure and the instruction of all staff in the new management system ;
- (iii) A review of the financial information required for policy development and management, and a revision of the accounting and budgetary system to meet these needs ;
- (iv) The introduction of a manpower audit and subsequent review of staff utilisation ;
- (v) The establishment of O&M team and the planning of work programme directed at high cost activities ; and
- (vi) A review of staff structure grading, reward and punishment system to ensure an effective distribution of responsibility and appropriate recognition of individual ability and effort.

II. THE ROLE OF LOCAL AUTHORITIES

The Domain of Municipal Functions

2.1 All municipal functions, legally speaking, are concurrent in nature to the state list of functions and are in fact derived from the latter. There are 35 items mentioned as State functions in the Seventh Schedule of the Constitution. In some municipalities there are as many as 20 functions assigned to them by law which are the same as the list of State functions. In no municipality are there less than 10 functions which have similar concurrence with the State Government list.

2.2 "In India Municipal Authorities are organised on the basis of the familiar English principle of ultra vires meaning that unless these authorities are specifically delegated any power through the legislation, it would be inappropriate to exercise that power which really belongs to the superior Government, in our case the State Government. Any power which is uncanalised and exercised without proper control by the Municipal Authorities runs the risk of being struck down by the force of law as excessive delegation".

2.3 All this implies that the State Government is free to extend its functional sphere, formally delegated to the municipal authorities, through executive decisions without even having to amend the original legislative provision delegating such functions.

Obligatory and Discretionary Functions¹

2.4 Most of the municipal legislations in the country distinguish between obligatory and discretionary municipal functions. No commensurate efforts, however, are being made to ensure that the local authorities are provided with adequate resources, fiscal and technical, for the performance of the obligatory duties. It is also not clear whether the local authorities are under any obligation to think of discretionary functions only after the delivery of obligatory services. In the circumstances, the classification of functions as obligatory and discretionary loses significance.

2.5 Whether obligatory or discretionary, there is nothing sacrosanct in the powers and functions of a municipality either in the state legislations or in the Constitution. The extent of these as well as the extent of governmental control effort a municipality depends in the scope and breadth of the statute creating the municipality. Broadly, speaking, however, the main categories of functions, common to all urban local bodies in India, are as follows :—

- (a) Water supply, sanitation, public health and conservancy;
- (b) Roads, street lighting and building control;
- (c) Provision of common facilities; and
- (d) Provision of measures for public safety.

Erosion of Municipal Functions

2.6 What is important in a discussion of the role of local authorities in India is not so much the permissive range of municipal distinction between obligatory and discretionary functions, but the actual operative municipal jurisdictions. There is an increasing tendency in the country to take away the obligatory functions of the urban local bodies and create new agencies at the urban or state level and to assign them the planning and development of these various services hitherto the exclusive jurisdiction of the local bodies. It is true that this tendency has been strengthened by a certain force of events; the organisational incapacity of the local bodies in the face of severe service deficits; the continuing image of these bodies as corrupt and

Appendix I lists the obligatory and discretionary functions of local bodies by States in India.

inefficient; and the problems arising from haphazard and unplanned peripheral growth. In the process the municipalities have been almost reduced to a position of irrelevance accompanied by the growth and strength of the development authorities and special agencies.

Hiatus between capital and maintenance expenditure

2.7 In the name of capital expenditure and development, specialised agencies are being created since the traditional form of municipalities and corporations are deemed to be anachronistic to the increasing demands of city management. The powers and functions—permissive, proscriptive, prescriptive in nature—for the development of an urban system for its orderly growth are being piled on the newly created agencies. This has resulted in a phantom distinction between capital works and maintenance; yet, this does not constitute a distinct set of functions for the local bodies but only a process for fiscal purposes.

2.8 There are additional effects of this growing hiatus between capital and maintenance expenditure as reflected through the workings of development authorities and municipalities. Firstly, the municipalities are not in a position to take on the additional burden of the maintenance arising from the additional investments made by the development agencies in view of their own existing severe resource constraints. As a result the investments are not being maintained properly and are, therefore, threatened with early damage or repair. Secondly, as it is, the articulation of planning and delivery of system has never been done strongly at the local level. Third, the municipalities have never been seriously involved in the development planning process of the new agencies. Hence, the new investment schemes are not seen by the municipalities as schemes of their own making, and are often seen as being imposed on them by some higher authorities for their maintenance and operation in the future. Because of this lack of integration between capital investments and maintenance responsibilities the planning of new investments is not accompanied by a strengthening of either the physically personnel or financial resources of the local authority. It is no wonder then that they are not keen to take up the maintenance responsibilities thrust in them. It is not the necessity of these investments that is being questioned. It is the apolitical system of decision making which does not involve the participation of the municipalities *ab initio* that is resented by the municipalities. They should be consulted and involved in the planning and execution of schemes so that they can give prior commitment to future maintenance. Consequently, the development authorities themselves have often been forced to incur maintenance expenditure in addition to capital investments.

Basic Municipal Tasks

2.9 A view can, therefore, be taken that in the interest of responsiveness to public needs, efficiency in service distribution, accountability, financial responsibility, legal participation and benefits of local knowledge, the basic obligatory functions like provision of water supply, sewerage, drainage, street lighting, maintenance of roads and conservancy, the markets, the community services etc. should be reverted to the municipalities. Statutory and special purpose authorities like Water Boards or Sewerage and Drainage Boards for intra-municipal purposes cannot be the only automatic option available for planning and delivery of such services. If at all such bodies are needed because of technical requirements it should be examined whether such bodies can function in a way to supplement and help the efforts of the local bodies rather than supplant and supersede the related municipal functions. For instance it is quite possible that in complicated cases of planning and execution for which sufficient expertise and knowledge are not available with the local bodies the special authorities being created can provide those specific services as an agent of the local body to achieve the programme objectives. It is also conceivable that deputation of experienced and senior level technical officers may be available to the local bodies from the superior authorities and agencies for performance of certain complicated tasks for specified periods.

2.10 In other words, development authorities and state level utility bodies are not a *priori* necessary for executing functions assigned to municipalities. Such bodies may only be justified in urban areas consisting of several municipal jurisdictions adjoining one another. In many such cases of intermunicipal jurisdictions, these would be, in effect, metropolitan or premetropolitan situations. Here, apart from the municipal functions, there are a number of other functions of planning, investment, regulation and promotion which may call for such development authorities.

Resources for Performing Basic Tasks

2.11 The proposed reversal of certain basic functions to the municipalities should be accompanied with commensurate resource availability so that such functions can be adequately performed. Resource constraints have been the major and perennial factors for the continuing disability of urban local bodies in the country. Solutions are usually sought in larger allocation of resources from the State which has a long-standing method of meeting this end. Financial support from the State Government is a critical need both for the current expenditure as also for the development budget. But this should be done on a systematic and predictable basis so that municipalities know what their entitlements are and can then plan accordingly. The regular appointment of a Municipal Finance Commission is essential for this purpose in every State. The methods of devolution should be such that there are incentives for the local bodies to improve their own resource generating and management methods. The gap filling approach should be eschewed. The accompanying Task Force on "Financing of Urban Development" is making more detailed suggestions on this issue.

2.12 The installation of a dependable system of devolution of finances should be matched by serious efforts on the part of local bodies to improve their own tax base and tax management. The financial strength of local bodies is weaker than it should be even considering the existing system of taxes available to them and the rates that they can levy. Tax collection is much lower than demand in most municipalities and therefore arrears keep rising; there are huge defaults in billing and demand notices; there is widespread under-assessment; there are defects in licensing and in the associated fee collection system. Collectively, this has resulted in low income generation in local bodies leading to increasing budgetary deficits. Improved tax administration and management to remedy the deficiency mentioned above, and to achieve a certain element of buoyance by improved collection, prevention of leakages and reduction in arrears, will go a long way to generate financial self-sufficiency of the local bodies. To that extent, the availability of resources for meeting the responsibilities of discharging the basic functions can be met from the local bodies own resources. It has also been noticed that unexplored but remunerative areas of taxation, licensing and investment by the local bodies has narrowed down the tax base and revenue resources scientific fiscal planning as a part of internal management improvement is a specific necessity in this regard. If this kind of improvement takes place on the internal, revenue side of the local bodies, the State Governments' assistance can go to meeting not only the deficit budgetary gap but also towards some kind of capital expenditure.

2.13 A review of the functions now performed by the municipalities shows that there is scope for review of some of the traditional functions like primary education and curative health care performed by some of the municipalities. There is no doubt that these functions can be performed better by state level agencies and the municipalities can be relieved of such onerous and expensive functions. To that extent, correspondingly, the financial dependence of the local bodies on the State Government for the discharge of such functions can also be reduced to the advantage of both the State and the local bodies.

Spatial Planning

2.14 As noted already city planning has not been a strong tradition of the urban local bodies in the country. However, by this time almost all the States have enacted Town and Country Planning legislation. These legislations impose a heavy responsibility on the local bodies for control and regulation of land uses, zoning regulations, building byelaws, development control and preparation of local level spatial plans within the proscriptive and prescriptive powers of the State Government in the framework of the Town and Country planning legislation. Such a requirement was not felt necessary and immediate even 10 years ago but is no longer so. The overall strategic planning of urban development rests at the State level. within that, the Task Force on "Planning of Urban Development" has suggested that regional level urban development plans be prepared in the larger States taking account of the role of each town in its region. It would be in this overall context that city and town level plans would be prepared. The spatial plan, in particular, should be prepared at the local level such that local conditions can be appropriately accounted for. It is difficult for any State level bureaucratic organisation to prepare town level spatial plans which address the specific needs of each town. The larger municipalities would have no difficulty in maintaining their own town planning cells. For the smaller municipalities, the expedient of sending trained planners on deputation from the state level organisation can be used profitably.

Package Approach

2.15 The thrust of the argument so far developed is to restore the functional responsibilities of the local bodies in several basic areas and to discourage the creation of other agencies for performing the same functions, especially where opportunities already exist for such an approach. At the same time with such reversion of basic functions, the local bodies will require a considerable amount of financial, technical, managerial and structural importance to enable and equip them to discharge such responsibilities. There has to be a comprehensive approach on the part of the State Government, therefore, to see that the needed assistance is forthcoming. The local bodies themselves will also have to adopt firmer administrative development. The two processes should eventually merge to provide a better management level of the local bodies with increased financial viability. Specific mention in the package of reforms should be made of the legislative, the administrative, the financial, the fiscal, the audit and the training aspects, some of which will be dealt with in this report.

2.16 Effective urban management and improved urban planning are the two movements which should ideally converge at the local government level. The pressures are too great to be ignored but the wherewithals are too meagre to be garnered. There are services expected of urban authorities ; there are limited resources available to provide them, and there are a number of ways by which resources and services can be linked together to achieve public goals if one knows and uses the currently available managerial tools, given proper environment, correct leadership, and adequate understanding.

The Threat of Supercession

2.17 In sharp contrast to the political prestige and influence that many of the municipal bodies enjoyed in earlier days, the very existence of the municipal system has become vulnerable in recent years. Of the municipal corporations in the country, as many as are under supercession at present. In Tamilnadu, barring one corporation, all other urban and rural local bodies have been under supercession for some time. Calcutta Corporation has been under supercession since 1972. Over half the number of municipalities in many other states have been under similar situations. Whatever the grounds for such action, little evidence is available that the administration of these municipalities has improved measurably under the direct administration of the State. On the contrary, most decisions of a political nature, such as taxation, are found to be deferred on the ground that they should await municipal elections. Yet, for a variety of reasons, real or otherwise, such elections are invariably delayed. The indiscriminate, frequent and prolonged use of supercession powers indicates that it has degenerated into an instrument of expediency rather than reform. Since the intention does not appear to be to substitute the municipal system itself, alternatives to the ultimate weapon of supercession should be considered seriously. Where it is used, the period should be short and specific and elections should be held within six months to one year at most.

2.18 This Chapter has argued forcefully for the restored health of local municipal bodies. Their strengthening in terms of access to financial resources, management capability, personnel fiscal as well as service responsibility, and planning powers is essential for the orderly development of our towns and cities. This is not being suggested out of any romantic attachment to the efficacy of municipal bodies. This is a necessity for the efficient management of our towns and cities so that all citizens can have access to at least a modicum of essential urban services. With rising urbanisation, it will simply be impossible for State level agencies to serve the myriad needs of different towns and cities—both physically as well as financially.

III. MANAGEMENT TASKS AT THE CITY LEVEL

Introduction

3.1 The tasks of urban management cannot be, and are not, the same for all urban areas. They vary both in content and in focus depending on the economic, commercial, regional and other functional characteristics of the urban areas. Approaches to urban management tasks tend to become somewhat universal as if the prescriptions can be applied uniformly to all kinds of sizes of urban areas. The identification of the characteristics of specific urban areas and relating management tasks to these characteristics is, therefore, important.

3.2 Ideally, improvement of urban planning and effective urban management should converge at the city level. Whether due to lack of perception or lack of resources, this has not happened. The plethora of special agencies and development authorities has been a major source of distraction from the critical need to identify tasks and management requirements at the city level. In the previous chapter it has been urged that basic civic functions should be reverted to the local bodies. It has also been argued that the responsibility for capital works should go together with operations and maintenance of services. In this context two issues of importance have to be considered—(i) what institutional, financial and managerial support will be provided or acquired by the local bodies; (ii) how the local authorities will relate to other organisations functioning in the area. It is important that an identification of the tasks is recognised as the starting point for institutional design.

Municipalisation of Urban Area

3.3 Sectoral agencies and development authorities are created often on the argument that certain urban areas are not covered within municipal limits. Obviously this should be taken as a case for revising the municipal limits rather than freezing them and resorting to other types of organisations to perform municipal functions thereby creating needless institutional fragmentation. Growing urbanisation indicates the need for a systematic policy on municipalisation. It is necessary to establish in the public mind that the governance of urban areas is essentially a municipal function. Resistance to the inclusion of areas within municipal limits is common mainly because of the anticipated fear of taxes. However, if the basic premises of local self government are accepted then it follows that provision of services has to be sustained by local taxes as far as possible. Attempts to get the services provided in new areas by non-municipal agencies will only complicate matters, reduce the chances of utilising the tax-base in the area and lead to needless conflicts between the city and the periphery or a municipality and other organisations. It is necessary to devise guidelines for the extension of municipal limits to contiguous areas so that such extension is anticipated and achieved in time. Where rapid urbanisation takes place outside the municipal limits the case for extension is to be considered first and foremost before other alternatives are explored. While there are important issues of the incidence of taxation and equity between the existing city and the areas proposed for extension, it must be recognised that in most situations the planning of the new areas and the provision of services has to be a part of a larger development plan.

Administration of New Towns

3.4 Since Independence a little over 100 new towns have been built in the country. Mostly, these are locations of new industries or new economic activities like ports, mining etc. Considerable effort has gone into the planning and construction of these new towns. In many cases the industries themselves have shouldered the responsibility for this. The steel towns of Rourkela, Bhilai, Durgapur and Bokaro are major examples. In a few cases, in particular, projects for building State capitals, special authorities were set up such as in Chandigarh, Gandhinagar, Bhubaneswar and Bhopal. Though the standards adopted in these towns for services and maintenance have been much higher than for other urban areas, it has been found in most of the cases that the administrative and financial arrangements for their operations and maintenance have been grossly

insufficient. In many towns the industrial managements themselves have had to carry these running costs as part of their overheads. Unfortunately, industrial managements have resisted attempts to bring these towns under municipalities or demand that such municipalisation be confined to the company towns limits only. This has been both unnecessary and unwise. Per capita incomes in most new towns are much higher than state and national averages and the scope for self-sustaining housing and commercial development has been ample. Because of serious institutional lacunae, it has not been possible to take advantage of these opportunities.

3.5 A separate notified area authority has been set up for the Rourkela township under the control of the Steel Project for example and another for the peripheral areas though it is very much a part of the city. In some States, in spite of resistance, municipal bodies have been set up for the entire urban area as in Durgapur or special area development authorities as in Madhya Pradesh which combine area development and municipal functions. All over the world company townships have been regarded as an aberration. The industrial origin of these townships cannot be considered a sufficient reason for keeping them outside the urban and municipal framework. Each of the industrial townships should either be merged with the rest of the city or brought under a single municipal authority.

The Limited Rationale for Urban Development Authorities

3.6 The artificial hiatus between capital works and operations-maintenance and its use as an argument for the creation of sectoral agencies and development authorities has been discussed earlier. If the basic premise of obligatory functions of municipalities is accepted, then there is very little reason for special purpose authorities like Water Authorities, or Sewerage and Drainage Boards, etc. If these are needed because of major technical imperatives it should be examined whether such bodies can function as subsidiaries to the municipalities responsible to them.

3.7 It is often argued that statewide agencies for service delivery—particularly water supply and sewerage and drainage agencies—are necessary because the sources of water and the location of outfalls and sewerage treatment plants are often beyond municipal limits of towns. Moreover, the planning of large waterworks as well as sewerage treatment plants has to be done at a higher level in order to take care of ecological considerations. The planning of drainage has characteristically to be done at a sub-regional level. That State level technical agencies should exist for the planning and execution of such large headworks, etc. is therefore undesirable. The building of water and sewerage networks at the city level can still be done by the local body which can then obtain the water from or discharge sewage for treatment to a state level body on appropriate charges. The network of power distribution is a good example: the responsibility for distribution is often distinct from the responsibility for generation. The essential point is that provision of these essential services should be the management and fiscal responsibility of the local body while there can be other technical agencies which do higher level statewide planned investments. Similar arguments can be made for local road building and other activities which smaller local bodies can ask state level agencies to execute but the responsibility would remain with them.

3.8 There are about 60 Urban Development Authorities in the country now. Of these 10 are in metropolitan cities and the rest are mostly in Class I cities. U.D.As therefore do not exist in about 150 Class I cities. Their creation, for reasons stated earlier, are often temporary expedients rather than lasting solutions for urban management. The case for an urban development authority should be examined carefully in each case and other alternatives considered before the creation of one. They may be justified only in urban areas consisting of several municipal jurisdictions adjoining one another and which, for some reason, cannot be amalgamated together. These would largely be metropolitan or pre-metropolitan situations. Here, apart from the municipal functions there are a number of other functions of planning, investment, regulation and promotion which may call for such development authorities.

3.9 Urban Development Authorities are agencies of the state government and are typically not responsive to local needs and conditions because they are essentially unrepresentative in character. In addition to problems arising from inter-jurisdictional problems which often lead to the creation of U.D.As, they are also created when there is substantial capital investment to be done in a city and the local body is not regarded as capable for carrying out these tasks.

They then degenerate into public works agencies and inevitably give rise to problems of coordination of public investments with the existing local body. With higher level devolutions of funds then flowing to the U.D.A., the result is that the existing local body is effectively weakened still further. Again, there is a hiatus between capital works and maintenance, so that the capital invested by the U.D.A. is then not maintained by the local authority because of a paucity of resources. Technical and financial strengthening of existing local authorities rather than creation of new U.D.As should therefore be preferred in such situations.

Decentralisation of Urban Management

3.10 The Task Force has suggested the strengthening of local authorities at all levels to make for better urban management. There has been no discussion of urban management below the city level. For a local government to be strong in the long run it needs to be strong at the grass-roots. Further, the collection of user and other civic charges requires a decentralised form of organisation. Hence, the strengthening of local authorities should also include an expanded programme of intermediate forms of organisation geared to urban community development through a participative process of planning, execution, financing, monitoring and evaluation of projects and programmes. At present, in urban areas, there is no one between the citizen and the Municipal Corporation or Municipal Board. In a participative sense, in the places where a local authority is suspended, the citizen really has no intermediary between himself and the State Government. While there may be some argument about the actual efficacy of panchayats, etc., there is at least an existing system of local participation in rural areas such that groups of 1000 to 10,000 people, depending on the size of the village, have some say in the running of their local affairs. Hence in urban areas also, there must be intermediary organisations which elicit the participation of people in decision making. To the extent that there might then be a closer connection between tangible works and resource raising people might be more willing to contribute towards these resources.

3.11 Emphasis has been placed on the fiscal strengthening of local bodies so that they are able to perform the tasks that are to be assigned to them. The key ingredient necessary for efficient resource mobilisation is that the public must be convinced that taxes and user charges are indeed related to the benefits that are supposed to occur. It has been found in a variety of places that when the perception of the public is that payment of fees and taxes is indeed related to improvement in services, such payments are made readily. Indeed, even capital costs have often been financed in this manner. Poor neighbourhoods have often been found willing to pay for road widening and paving, the provision of piped water supply, sanitation, etc. when their payments are seen to be directly linked to the provision of these services.

3.12 The aims of bringing local government closer to the people and of adjusting more carefully to the needs of particular geographical areas within the local authority have a wide appeal. Essentially decentralization or area approaches involve gearing the planning and management of policies to the needs of particular geographical areas within the local authority and may involve delegating administrative and/or political responsibility for at least part of this work to the local level. It is important however to clarify the overlapping meanings of decentralisation, delegation and devolution at least in so far as they are used in discussion in local government practice.

3.13 Decentralization has two meanings. It is sometimes used to refer purely to the physical dispersal of operations to local offices. In a second sense it is used to refer to the delegation of a greater degree of decision making authority to those officers whose work concerns particular areas. These officers may or may not operate out of local offices. Where they do the two meanings of decentralization are combined. Delegation also has two meanings. First, delegation can mean entrusting a greater degree of decision making authority to lower levels within the administrative system. This overlaps with the second meaning of decentralization. Second, delegation can be used to refer to changes in decision making authority within the political system as when authority for certain decisions is delegated to an area committee of councillors. This overlaps to some extent with the idea of devolution which involves a transfer of authority to a body which may or may not be separated from the local authority. These three concepts are also expressed in terms of the distribution of authority, i.e. the ability to take action without prior confirmation from a higher level. It is also possible to consider these concepts in terms of the distribution of influence, i.e. the ability to exert leverage on decisions affecting the area. In practice most of the area approaches which shift power to the local level have done so by means of decentralization/delegation/devolution of influence rather than authority.

3.14 In India we have not seen 'governmental' or 'political' decentralisation yet. If we assume that in our context also there is a conflict between a monocentric big city administration and a polycentric urban community (a highly questionable assumption), and that conflict needs to be resolved through, *inter alia*, political decentralisation, in addition to administrative decentralisation, then this approach would imply that our urban communities are ready and willing as also the state governments, for (a) policy-sharing, (b) areal division of political power, (c) claims on local community needs and (d) participatory role in local democracy. Since these are yet to mature to an extent to determine and influence political decentralisation, it appears that we have to rest content with administrative decentralisation, making it move and functional, responsive, accountable and efficient, given the willing cooperation of the headquarters, for some more years to come.

3.15 With these considerations in view it was felt that any recommendations concerning the decentralisation of urban management at the city or town level would be premature and hence unrealistic. The Task Force looked at the Urban Community Development Programme in Hyderabad in the context of the delivery of services to low income communities in a large city. This can also be seen as another approach to decentralised urban management and is discussed in the context of metropolitan management in the next chapter.

IV. THE MANAGEMENT OF METROPOLITAN CITIES

4.1 In Indian urban planning and management the concept of a metropolis is of very recent origin. The Census recognises an urban agglomeration but not a metropolitan area. While Delhi's master plan sought to delineate urbanization beyond the city's current boundaries, the planning exercise which commenced in Calcutta in 1961 was the first of its kind that went beyond Census definitions and attempted a metropolitan perspective. Since then the "metropolitan view of things" has spread to many other cities. Whether in common parlance or by planner's delineation, twelve cities in the country, with a population of more than 1 million are now considered metropolitan cities : Calcutta, Bombay, Delhi, Madras, Bangalore, Hyderabad, Nagpur, Pune, Ahmedabad, Jaipur, Lucknow, and Kanpur. Another 8 to 10 cities are expected to join this 'select band before 1991. Together, the population of these 20 odd million plus cities will total about 65 to 70 million in that year. Still that will amount to only about 22% of the anticipated urban population of 320 million in the country. But the economic, political and social significance of these metropolitan cities is being felt increasingly in the national life as to demand a separate kind of level and treatment in their management.

The existing situation

4.2 Of the 12 metropolitan cities, 10 have metropolitan level development authorities, Pune and Nagpur being the exceptions. Calcutta, Madras and Bangalore have separate metropolitan wide water and sanitation authorities in addition to the MDA, Lucknow, Kanpur, and Hyderabad have state level water and drainage authorities working in the metropolitan areas as well. Bombay, Delhi, Ahmedabad and Pune have utility organizations in electricity or transport as subsidiaries of the municipal corporations. Where MDAs, municipal bodies and state or metro level utility undertakings co-exist, the allocation of tasks among them have been ad-hoc and have not followed necessarily territorial, technological or functional imperatives. The creation of MDAs was rarely based on an analysis of metropolitan functions though reviews of this kind were not lacking. In the Calcutta case for instance a very elaborate organisational analysis and prescription was made as part of the Basic Development Plan of 1966 but the MDA created four years later was a very different product—an *ad hoc* response to a crisis situation and the perceived bankruptcy of the municipalities rather than a thoughtful first step towards a metropolitan organizational structure. In Bombay the prospect of additional funds provided a major stimulus for setting up the MDA in 1972 but acrimony marked its existence for the next few years before its role could be established vis-a-vis the Bombay Municipal Corporation. In Madras, the interpretation and enforcement of a physical plan was the rationale for the metropolitan authority though later, quite fortuitously, it moved into metropolitan wide investment programming and coordination. Other MDAs whether in Bangalore or Hyderabad, Kanpur or Ahmedabad continue to search for and appropriate role, the choice varying between several models—real estate development as in Delhi, public works as in Calcutta, investment programming as in Madras etc. The truth of the matter is there is no one uniform model. Indeed there cannot be for organizational design is to be based on an identification of tasks. Given the size and complexities of metropolitan cities such tasks are bound to be multiple and varied.

4.3 The fragmentation of municipal jurisdiction is often cited as an additional complexity in metropolitan areas. With 38 municipalities and 36 non-municipal urban areas and numerous panchayats Calcutta can be said to be the case in extreme but there has been practically no effort to consolidate or adjust these jurisdiction though opportunities exist. Extension of local authority boundaries within metropolitan cities will considerably reduce the problems of fragmentation. In Bombay, recently a decision has been taken to constitute Thane, Kalyan and New Bombay into corporations by suitable boundary adjustments and extensions.

Multiple Tasks in the Metropolis

4.4 The tasks of urban management in a metropolis are not merely municipal. Even assuming municipal boundaries are adjusted or extended and the metropolitan territory is brought

within a municipal structure there will be several functions which are either beyond municipal competence or non-municipal in character which have to be provided and coordinated; transport, telecommunication, higher education and public safety are obvious examples. In most metropolitan cities in the country different public transport modes, ranging from suburban railways to scooter rickshaws are used. Whether some of these modes are operated by a single transit authority or not, there is an obvious need for inter modal coordination in routes and areas of service. Similarly the critical role of telecommunication in metropolitan development and efficiency is being understood increasingly. The level and spatial distribution of these services need to be carefully planned and coordinated with other aspects of metropolitan planning. Again, in the metropolis public safety is not confined to crime detection or crowd control. Traffic management and regulation of private transport are becoming critical aspects of public safety. Higher education, hospital care, wholesale trade, pollution control, supply of milk and other essential commodities etc. are other examples of functions and services which need to be provided and regulated on a metropolitan scale. In scope and character these are tasks of metropolitan level management. Whether they should be performed by or through a metropolitan development authority is a different issue but it must be recognised these tasks require metropolitan wide perception, analysis and coordinated action.

Municipal tasks and Metropolitan Development Authorities

4.5 In India, the rationale for MDAs and their subsequent programmes have focussed on the provision of municipal services. It has been argued that certain services like water supply, drainage or roads or activities like land development, slum improvement, urban renewal or commercial space development require metropolitan wide action. Reduction of the disparities in standards of services, economics of scale, requirements of technology, better access to financial and other resources etc. are some of the grounds usually advanced for taking over municipal functions.

4.6 There is also a presumption that centralization, by itself, will reduce problems of coordination, by reducing the number of agencies. This may not necessarily be the case. In the case of new projects, for example, construction of water works of distribution networks, it can be argued that coordination problems at the planning, programming or execution stages will be substantially reduced in a centralised set up but the more serious problems may surface only during operations and maintenance. A major and often vexing issue here relates to pricing for water and mechanisms for collection. The purposes of capital investments are often frustrated because of operations and maintenance policies and problems. But this only emphasises the case for bringing responsibilities for capital works and operation/maintenance together and not for divesting municipalities of their functions. Responsiveness to public needs, efficiency in service distribution, accountability, financial responsibility, benefit of local knowledge etc. cited as arguments in Chapter II for reverting obligatory functions to municipalities apply also in metropolitan situations. In some the scale of the service needed, the backlog of deficiencies, and the fragmentation on municipal jurisdiction may be special reasons for creating functional agencies but this should be the exception rather than the rule.

What should Metro bodies do ?

4.7 The rationale for a metropolitan development authority is not so much as what it can do; rather its tasks should be those which others cannot do at the metropolitan level and therefore may go by default. In the provision of municipal services, in many cities the responsibility is either of the municipalities or their subsidiaries as in Bombay, Delhi or Ahmedabad or separate functional agencies as the Bangalore or Madras. The role of metropolitan management here has to be highly selective. The scale and intensity of demand for services in most metropolitan cities calls for virtually a doubling or trebling of the investment and effort of the past several decades. Where funds are severely limited the case for selectivity in their application is obvious. The sectoral agency may have the primary responsibility for assessment of needs, identification of projects, internal efficiency, cost recovery etc. but determination of priorities, the timing of the investments and inter-agency consistency become crucial. Plans for water supply headwork have to be coordinated with distribution networks or sewerage plans and these in turn have to be related to the road networks and flow of traffic during construction. More significantly the maintenance and tariff policies have to ensure that the objectives of the investment are fulfilled.

4.8 The analogy can be extended to other services and development activities as well such as road improvement, transportation, area improvement, housing and so on. Irrespective of the nature and number of agencies involved in these functions, at the metropolitan level strategic planning for development, capital budgeting and programming and the coordination of development programmes and operational policies are critical metropolitan level management tasks. These by definition cannot be performed by a particular sectoral agency but if these are not performed then the value and efficiency of the sectoral work will itself be undermined. Monitoring and evaluation is another function that should be regarded as a metropolitan management task.

4.9 These tasks can and indeed should be performed by an apex metropolitan authority. However some of the MDAs have taken to production of services and other sectoral or line functions themselves. This is neither desirable nor necessary. If in essence, metropolitan management is multi-sectoral and in application transcend sectoral and agency interests then the metropolitan authority should not have project execution responsibility itself. The authority should seek to integrate sectoral and territorial concerns by coordinating the work of the numerous agencies. As observed before, given the multiple needs in the metropolies there is no escape from the multiplicity of agencies; but metropolitan management as an overriding and corporate concern will undoubtedly suffer if the MDA is itself to become a line agency.

4.10 Apart from the issues of incompatibility there are also problems of skills and manpower. The process of strategic planning, investment programming, resource allocation, coordination of policies and projects etc. are essentially of a corporate and managerial nature. In most metropolitan authorities these are in short supply and have to be developed over a period of time. Though there may be some similarity in the skills required for project management and policy analysis, in most metropolitan cities the volume of project activity is sizeable and the pressures their execution exert on managers are high. Direct involvement of metropolitan authorities in project execution will inevitably detract from its planning, analytical and managerial activities and resources.

Mobilizing Resources

4.11 The view persists that metropolitan areas are preempting financial and material resources disproportionate to other areas. An animus against the large city is part of the folklore and philosophy in many countries. In India, the early industrial cities of Calcutta, Kanpur or Bombay have been perceived as conduits of colonial exploitation of the countryside. As pointed out by the Task Force on Planning for Urban Development, even after independence, successive Five Year Plans have deliberately sought to limit metropolitan expansion, in particular location of additional industry. It has been considered good policy to deflect financial and other resources away from metropolitan areas towards the small and medium towns. It is only after deficiencies in infrastructure reached crisis proportion in the '70s that a conscious effort was made to assemble resources for metropolitan cities.

4.12 The contribution of these cities to national income and to public exchequer have always been significant. Nevertheless given the pattern of tax resources and their devolution, metropolitan areas are unlikely to receive funds in proportion to their contribution or needs. Special arrangement will need to be devised to pool local, state and union resources. Advocacy becomes a vital task here. That the resources sought and obtained are not disproportionate to metropolitan needs and are in fact essential to sustain its economic role, has to be analysed and established, on a continuing basis by metropolitan management. The study by the Madras MDA a few years ago which established that per capita infrastructure investment in Madras has been significantly less than the state average is an illustration to the point.

4.13 The MDA also has a substantial role in helping municipal and functional bodies in mobilizing resources through taxes and rates. Tax reforms and tariff changes have a better chance of success if they are made a part of development programme. This has been born out by the experience of the IDA assisted Calcutta programme and elsewhere. Financial plans have to be made an essential part of capital investment programmes.

Economic Development

4.14 The role of urban management in raising incomes and promoting employment is perhaps the least understood of all tasks. While these have been the prime concern of national and state governments, the expression and application of these concerns at the city level have been vague infrequent and inconsistent. As indicated in the Planning Task Force Report the quinquennial increment in the urban labour force will keep increasing from 13-14 million in 1986-91 to 19-20 million in 1996-2001. During the Seventh Plan period itself over 3 million urban jobs will have to be created annually. The traditional approach has been to propose industrial estates and focus new infrastructure investments to support trade and industry. But given the size of the problem these may not be enough. In metropolitan areas in particular, the response to the situation has varied from a macro analysis of metropolitan economy as in the Calcutta Metropolitan District Basic Development Plan to promotion programmes for self employment as in Madras. This only indicates that the definition of this task of economic development through city management will never be easy; the opportunities for metropolitan management to assist or intervene will change frequently. Interventions will need to cover a wide range from industrial estates, business sheds, commercial estates, loans for small business, training in skills and so on. Removal or at least some relief from the constraints to economic activity is a crucial task, whether the constraints be in access, power supply tele-communication or water. Economic development has to be a major determinant in the city's capital investment programmes. Given the preponderance of low incomes in the metropolitan area and the continued need to sustain rising development costs, metropolitan management cannot avoid this crucial task.

Relief from Constraints

4.15 The scale and intensity of demand for services calls for virtually a transformation of the urban environment. Municipal agencies and sectoral authorities, all suffer from varying degrees of organizational inertia, inability to perceive and respond to the changes in the nature and scale of services required and gross insufficiency in financial and material resources. Metropolitan management needs to address itself consistently to searching and providing to the sectoral and other line agencies relief from these constraints. Whether for scarce materials, budgetary support or facilitating execution, these agencies look to metropolitan management for assistance.

Capital Budget

4.16 Several of the master plans prepared for metropolitan and other cities do indeed contain a section or at least an appendix on capital works programme. Rarely is such a programme matched with resource availability, appropriateness of standards and levels of services or subsequent financial implications for operations and maintenance. In India, goal setting, resource allocation and budgeting are principally national and state level functions. For the metropolitan areas such an exercise cannot be done in isolation. The process of metropolitan investment planning therefore needs to be related to the State Plans in an organised way. A crucial first step is the depiction of a *Metropolitan Sub Plan* in the State Plan. This was done for the first time in West Bengal's Fourth Five Year Plan, well before the Metropolitan Authority was created. Initially, this was only a presentation of the items of outlay from different departmental budget heads. Eventually the metropolitan programme became a distinct budget head.

4.17 To enable this process, it is necessary that each municipal authority or functional agency should prepare an investment plan based on the availability of resources including institutional finance. These plans should be reviewed by the MDA and modified as necessary according to priorities and the strategies of development. The Authority should prepare a Five Year Plan for the metropolis coinciding with the National and State Five Year Plans as also the Annual Plans. The capital budget or investment plan will be the principal instrument for implementing the perspective plan for the metropolis and for coordinating and monitoring the implementation of the projects.

The Organizational Design

4.18 The structure of the Metropolitan level organisation which should undertake these capital budgeting and coordination functions may vary from one metropolitan city to another. It may be called the Metropolitan Planning Authority, Development Authority or by any other name.

It will help if it has the necessary statutory support for undertaking strategic planning and the authority for capital programming and budgeting. In particular it is necessary to stipulate either by a statute or appropriate administrative order that infrastructure investments in the metropolitan area should be subject to this Authority's approval. In the composition of the Authority, representation from the appropriate departments of the Governments, municipal and functional bodies working in the metropolitan area will enable it to perform its apex and coordinating role. The association of representatives from expert groups, whether official or non-official will enhance the quality of the organisation, work and facilitate its public recognition.

4.19 It has been stated before that the "raison d'etre" for the Metropolitan Authority is not what it can do but rather, what others cannot do. It has also been argued that to perform the critical tasks of goal setting, resource allocation, determination of priorities, capital budgeting and monitoring, the Metropolitan Authority should maintain its objectivity and should not take upon itself any execution role or the tasks of a line agency. There may be doubts that such planning and coordinating work is unglamorous; that without the patronage and power which execution of major public works bring, it may not be possible to enforce the coordinating mandate of the apex organisation. However, it must be noted the process of determining priorities and allocation of resources itself carries some authority as indeed any decision making process but the acceptance of the authority depends as much on the quality of the process and the results derived from the decisions. The models of Delhi & Calcutta Development Authorities are often cited to emphasise the benefits of centralisation. In the case of Delhi its powers of coordination are derived from statutory provisions of the Master Plan process as also the fact that the Lieutenant Governor of Delhi is the Chairman of the Authority. It cannot be argued that the eminence the D.D.A. enjoys is derived mainly from its public works or real estate operations. In the case of Calcutta, recent experience clearly indicates that the quality of the planning, capital budgeting or coordinating process is not enhanced or assured by bringing various metropolitan level agencies under the so-called "one umbrella" concept. On the contrary the preoccupation with projects has undermined and delayed strategic planning for the C.M.D. The most recent urban development programme adopted by the authority with I. D. A. assistance is a clear departure from the single command concept by reverting about 50% of the project formulation and execution responsibilities to local authorities.

4.20 In the Indian metropolis where investments, regulations, controls and service provisions are the concern of numerous Central, State and local bodies, it is patently unrealistic to bring them all under one command. Nor is this necessary since circumstances in a metropolitan area vary and for given periods of time some sectors are more critical than others. Metropolitan Management should serve as a platform to achieve consensus rather than seek in vain a position of command as a public works empire.

The One Municipality Metro

4.21 Another view that persists is that the metropolitan city should be recognised as a distinct municipal entity. This is just a variation of the single command approach. Examples of metropolitan government such as in London, Toronto or Tokyo are suggested as models. In all these cases however there was a long record of experience and competence of local bodies in the provision of services, regulation of development, tax management, town planning, etc. within their respective territorial limits. When the metropolitan dimension was brought in there was a strong feeling from the beginning that the new organisational framework should be federal and not unitary. When a two-tier arrangement was envisaged the process of delineating which functions were patently metropolitan and which local, required careful planning and political persuasion over a period of time. It was also necessary to devise highly sophisticated systems of revenue sharing between the metropolitan tier and the local tier, reflecting careful balances between core and peripheral areas. In the Indian context however the scale of resources, the nature of investments and the variety of problems encountered call for the joint action of Central, States and municipal agencies. In terms of political philosophy and local self-government one cannot perhaps quarrel with the plea that the boundaries of a metropolitan area should be co-terminus with a single municipality. Bombay's experience presents both the opportunities and limitations of metropolitan municipality. Further more if higher levels of government have to participate actively in metropolitan development and support it with the needed resources, it is doubtful whether the municipal framework would be an adequate platform for the purpose.

Decentralisation of Metropolitan Management

4.22 The last chapter contained a brief discussion on decentralisation of urban management at the city level. It was felt that with the current conditions in local bodies in India, it is premature to suggest any means of organised decentralisation that can be suggested at large. However, pressure is building up in the metro/cities to reorganise the management structure (including the municipal, non-municipal urban and local units comprised therein) into a less fragmented and more consolidated, unified structure, yet one that is responsive to the need of the metro cities.

4.23 A review of the existing system in six metropolitan cities viz. Calcutta, Bombay, Madras, Delhi, Kanpur and Hyderabad reveals that all these cities have opted for "administrative" decentralisation, unlike the "governmental" decentralisation which a few cities in the west have gone for. In the Indian system, the second-tier units, variously called, as zonal office, ward office borough committee, circle committee etc., perform the purely local functions such as primary health, primary education, local roads & ponds, street sweeping, garbage collection, clearing of house-drains, street lighting etc., which have been handed over to these sub-municipal units through a process of deconcentration of functions from the central municipal office. The basic pattern of this process, i.e. which functions are to be retained at the headquarters and which others are to be decentralized at the sub-municipal levels are considered more by tradition and local judgment rather than through community power structure or on grounds of effectiveness and accountability. The degree of political decentralization (i.e. distribution of authority and influence) is of a very low order since participation of the local councillors is very formal and marginal with these area-level units; the area-level officers have been delegated powers by their superiors at the headquarters to whom they are ultimately accountable.

4.24 The Task Force also looked at the Urban Community Development in Hyderabad for its relevance in decentralised management in a large city. It was found to be a useful approach for providing community services with grass-root participation in their identification, execution and maintenance. It is suitable for decentralised delivery of selected community services at relatively low cost and is replicable for other areas. It also seemed that it had succeeded in eliciting a considerable amount of popular enthusiasm. However, it was still a top-down approach with UCD officials essentially leading the way-the programme was not community led. Although some projects were done on a matching basis, the basic services were provided free. It had not yet brought into existence community organisational one self-sustaining basis to look after community level services & amenities. It was felt that from the viewpoint of decentralised management, it would have been more interesting if the UCD had initiated services, amenities and activities, and then had some procedure of "graduation" such that each community served would become self-sustaining after some time. A detailed description of the operation of this programme in Hyderabad is given in Appendix-II.

4.25 Given the current conditions of metropolitan management described above the Task Force felt that it is not possible to give useful suggestions for governmental decentralisation at the metropolitan level. However, the Urban Community Development approach can be adopted for decentralised delivery of certain types of services and is therefore recommended for widespread adoption.

V. MANAGEMENT TASKS AT THE STATE LEVEL

5.1 The point has been made before that our attitude to civic bodies has been somewhat ambivalent and our approach has been mainly *'ad-hoc'*. This is ironic considering the fact that the political importance of the city is being recognised increasingly while municipal bodies continue to be looked upon as weak and inefficient. The role of the State has tended to be highly paternalistic and actions at the State Government levels have been largely regulatory. In almost all the States for example, Inspectorates of municipal bodies exist, but their approach is more of a 'watch dog' looking for opportunities to admonish municipalities rather than to anticipate their problems and provide assistance. The failure to perceive the problems of urbanisation and the absence of a framework for devising policies for managing urban growth or even short-term strategies for guiding them has been aggravated by the gap between urbanisation and municipalisation. In the result, opportunities for interaction whether by investment or other means, in the urban areas are largely ignored by State Governments. The municipalities, for their part, have also failed to augment their resources from property development that urbanisation brings. Instead, the municipal dependence in the State Government has only increased, even for their day to day administration. Continuing neglect by the State coupled with this increasing dependence of the municipalities on the State have produced a situation aptly described by an observer as the "Sovereignty Trap".

The Existing Set-up at the State Level

5.2 The general practice in most States has been to have either (a) a department dealing exclusively with municipal affairs or (b) a multi functional department which has municipal affairs as one of its charges. In the former case sometimes the name of the department will bear a clear identification such as "local government administration", "municipal services" etc. But in the case of the latter the nomenclature may be often misleading. For instance the Department of Local Government and Urban Development in West Bengal deals, for the most part, with municipal affairs while Town and Country Planning, Public Health Engineering and Housing are dealt with by other Departments. There is also a separate Department for Metropolitan Development. In other States also functional departments such as Public Health Engineering, Public Works, Housing etc. have a separate existence though their domain of work may substantially involve municipal bodies and other urban jurisdictions. From time to time, recommendations are made in official forums that there should be one single department with a comprehensive mandate to look after the whole range of municipal and urban development functions. In Madhya Pradesh, for instance, Town and Country Planning, Housing and Local Government are placed under one Department called the Department of Environment. This has one Secretary even though there are separate Ministers for these subjects. Such an arrangement is worth considering. However, before determining the appropriate organisational design at the State level, it is necessary to identify what functions or tasks need to be performed at the State level.

Functions at the State Level

5.3 These functions may be broadly classified as policy planning, fiscal legislative, regulatory, project identification and technical assistance. We may consider in brief, the scope and criticality of the tasks involved.

5.4 *Policy and Planning* functions cover the formulation of State urban development plans and strategies, determination of criteria for selective priority growth areas, identification of instruments of investments, regulation and other means for facilitating such growth, programming of the investment needs, etc. State Governments have a vital role here. Though urban growth projections and physical planning exercises have been made in some cases, State level urbanisation policies or urban management strategies are virtually non-existent. State level urban planning should cover a much wider area than mere physical planning. It will require inter-disciplinary expertise of a high order and its formulation has to be a consultative inter-departmental process. The State Directorates of Town and Country Planning should take the lead in this matter but in order to do this, they have to be strengthened substantially.

5.5 Legislation : This would cover the formulation of municipal and urban development laws, the delineation of urban areas, the formulation of rules and regulations for the administration of local bodies etc. Most States have the requisite machinery in this regard though the focus has been on municipal administration rather than urban management.

5.6 Regulatory : The supervision of municipal administration, review and approval of municipal schemes, staff sanctions, municipal accounts, audit etc. would belong to this category. Here again a formidable array of rules and regulations and elaborate machinery for administering them have been developed in many States, through Inspectorates or Directorates of Local Bodies, over many years.

5.7 Fiscal: Financial support to the municipal and other urban authorities is a critical function at the State level. This includes the planning and provision of funds not only for the current expenditure but also for the development budget. The constitution of a Municipal Finance Commission on a periodical but regular basis is recommended as an essential mechanism in this regard. A review of some of the functions performed by local bodies such as primary education, preventive health care etc. should be emphasised here. Since the States have taken the main responsibility in these spheres, there is an urgent case for relief to the local bodies either by the State taking over their functions or by providing additional earmarked funds to the local bodies. A dependable system for the devolution of resources based on appropriate performance criteria will be a critical item in the list of fiscal functions. Measures for better management of existing tax resources at the local level is an essential concomitant of this task.

5.8 Project Assistance: Most development projects, whether water supply, sanitation, roads or drainage are executed by State Government agencies like the Public Works Department or Public Health Engineering Department on an agency basis. In some States, municipal engineering directorates have also been established with regional units for this purpose. Given the limitations of staff and resources of the municipalities, this type of project assistance becomes crucial. However, the purpose of such assistance should not be to perpetuate the dependence of municipal bodies on the State Government but to enable them to acquire competence in project management gradually.

5.9 Technical Assistance: While some States have set up institutes of research and training in local government, technical assistance for local authorities is limited in most States, to depicting a few officers to local bodies or executing various municipal projects on an agency basis. The range of technical assistance tasks required is much wider. It should cover assessment of training needs of municipal staff, training programmes, systems for better tax collection, operation and maintenance of municipal services, etc. State Governments, by themselves may not be in a position to provide all these services but it is important that they are organised at the State level with full State support. The various measures needed for personnel development and training are discussed in detail in the next chapter.

Organisational Design at the State Level

5.10 The question is whether for performing these numerous state level functions a single department is necessary or feasible. By definition "urban" covers a vast range of subjects and functions. While these are complementary, the focus of each and the expertise called for, are different. For instance, the legislative and regulatory functions are distinct from project management. Again in the case of projects, their planning and execution call for several sectoral disciplines such as roads, public health engineering, housing construction, etc. As observed before, in many States, sectoral departments and directorates have come up over a period of time and acquired substantial technical and administrative hierarchies which are not easy to change. Besides, it should also be recognised that the administrative procedures and practices in the States render the creation of new departments or directorates far more easier than in the Central Government. As a result there has been a proliferation of sectoral departments and agencies in many States. The political, administrative and other compulsions behind this process are well known and it appears unlikely that the trend will be reversed in the near future.

5.11 At the same time the State level functions are so critical that efforts towards their coordination should not be abandoned merely because of the size of the problem. While the concept of a single department is attractive and convenient, its feasibility and acceptance in the government structure has to be considered. It will, therefore, be useful to consider which among

these functions are more critical for purposes of coordination. While the coordination of engineering works by different functional departments may not itself pose a serious problem, such coordination has to be in the background of an investment strategy. This in turn presumes that an urbanisation policy is available at the State level by which priorities in terms of both areas and tasks can be determined. It is equally important to ensure that spatial development conforms to this strategy and options for the future are not pre-empted by haphazard development. The formulation of an urbanisation policy and urban developmental strategy, its implementation through investment and administration management and its enforcement through Town and Country Planning thus become crucial tasks. It is, therefore, to be ensured that atleast these tasks are closely related to each other.

5.12 Some approaches to secure this relationship through an organisational design can be considered. One is to place these tasks in one department. In Madhya Pradesh, for instance, the Environment Department is in charge of town and country planning, local government and housing. In some other States, urban development and town and country planning are the charge of one department; yet in others as West Bengal, town and country planning is a separate department. In U.K. town and country planning and local government are major activities of the Ministry of Environment. The approach here is to deal with both the un-built and built-up environment through Town and Country Planning. The usefulness of this approach has been demonstrated in Madhya Pradesh where it has been possible to attempt planned development through this arrangement in varied situations like industrial towns or historical settlements.

5.13 Another approach is to have one department designated as the Nodal Department for the various urban management functions. There can be a nodal functionary as well similar to the case of Agricultural Production Commissioners in some States who are not attached to a specific department but function principally as inter-departmental coordinators. Cabinet Sub-Committees or committees of Secretaries also have their uses but it is important to recognise that continuity is an essential ingredient in policy making and strategy formulation. This calls for one department to be designated as the Nodal Department for dealing with urban development/management issues. The rationale for such a Department, to take the analogy from our discussion as metropolitan management, is not what it can do but what others cannot do.

5.14 It is important to emphasise that a state level urbanisation or strategy exercise has to be integrated with overall planning for the State and must be periodically up-dated. The inter-disciplinary and inter-departmental nature of the exercise should also be recognised.

Opportunities at the District Level

5.15 The dis-association of municipal bodies in the planning process and hiatus between capital works and maintenance as a result has been discussed before. Some opportunities for correcting this may be available at the district level. It is observed that the focus of district level planning is almost entirely rural. Within the context of the state urban development strategy, it may be feasible to devise projects and programmes at the local level to integrate urban and urbanising areas. The opportunities in this regard and possible approaches were outlined as early as 1966 by the Rural-Urban Relationship Committee. Besides, the technical assistance and monitoring of project activities is organised mostly at the district level with the district administrations functioning as representatives of the State Government. In the regulatory sphere the district administration performs a similar agency role. The district administration can, therefore, constitute an important channel for programme implementation, monitoring and feed-back. This process can be strengthened by organising technical assistance activities at the level of a district or a group of districts. However, it must be emphasised that such an approach cannot go far in the absence of a strategy for urban management at the State level.

VI. PERSONNEL DEVELOPMENT FOR URBAN MANAGEMENT

6.1 Like motherhood, personnel development is regarded as universally virtuous but very little is done about it. While the corporate sector, compelled by national and international competition and to a lesser extent technical organisations like the Railways, Post and Telegraphs etc. have taken up Personnel Development and training programmes on a significant scale departments of the government, whether at the Centre or the States have been extremely slow in responding to this critical need. It is fair to say, personnel systems in the government remain, in spirit and in content, largely the same as they were in colonial days. In the sphere of urban management the situation is far worse. The antipath towards municipal bodies as centres of political opposition in the colonial days has persisted in different ways even after independence. The frequent and long supersession of the municipal bodies is a clear manifestation of the inability of the government system as a whole to come to terms with local self-government as a critical need and devise the ways and means to enable the municipal institutions to endure and function. In addition, the impression has gained over the years, whether by default or by design, that as a rule municipal bodies are weak, corrupt and inefficient. In the result a vicious cycle has been built; municipal bodies are unable to attract and sustain qualified staff and this in turn confirms the image of inefficiency. A few municipal bodies, development authorities or functional undertakings might have succeeded in breaking this cycle but these are the exceptions rather than the rule.

Municipal Personnel Existing Situation

6.2 It is idle to talk of effective urban management without addressing the serious personnel problems involved. We may take up the issues regarding municipal bodies first. Municipal personnel management assumes greater importance since the municipal bodies deal with a gamut of functions and services which affect day to day urban living and environment. Besides, in the Indian context, another important aspect is that municipal administration is labour intensive.

6.3 An overview of the municipal personnel practices in different States shows wide variations. Present practices in different States could broadly be identified as :

- (i) A separate personnel system in which each local authority appoints, and administers personnel who are not automatically transferable to another local body ;
- (ii) *A united Local Government Service* in which all or some categories of personnel of local authorities constitute a career service for the entire State. It is administered and controlled by an agency, at the State level and the personnel is transferable between local bodies only;
- (iii) *An integrated service* in which the personnel of the State Government and that of the local authorities form part of the same service and transfers are possible not only between local authorities but also to the appropriate departments of the State Government.

State-wide Cadres

6.4 None of the above mentioned systems has been adopted in its entirety in any of the States. The system which, by and large followed, could be classified as under :—

- (i) Where a separate system is followed, some heads of the technical departments may be on deputation from the State service whereas the rest of the employees belong to the municipal council;
- (ii) even in cases where an unified personnel system is present, the State Government officials will be with the councils on deputation to head technical departments, whereas, class III & IV personnel belong to the separate personnel system. Statewide municipal cadres generally cover Executive Officers, Revenue Officers, Accountants, etc.

(iii) the personnel system in Municipal Corporations is of a 'separate' category with the exception that the commissioner and some of the heads of the departments, generally belong to All India or State Services and are brought to the Corporation on deputation.

6.5 During the last decade, many States have either adopted or, have provided for in their respective municipal legislation for the introduction of a unified personnel system to cover the higher echelons of municipal services.

6.6 This was considered necessary to meet the inadequacies of traditional separate personnel systems because of the following deficiencies:

- (i) inability to attract qualified and competent personnel;
- (ii) limited promotional opportunities which led to stagnation resulting in frustration among the personnel; and
- (iii) wide spread favouritism and nepotism in appointments, promotions, etc.

6.7 The State-wise municipal cadres have endeavoured to remove the above mentioned defects. The States have assumed the responsibility in respect of recruitment and selection, transfer, promotion, fixation of salaries and other service conditions of officials covered by the unified personnel system and have prescribed rules and regulations governing these matters. Tamil Nadu was the first to adopt the system of a state-wise service of municipal commissioners. Since then Rajasthan, Karnataka, Madhya Pradesh, Punjab and Uttar Pradesh have provided for the creation of statewide municipal services for senior administrative, revenue and technical posts in the municipalities. Scales of pay, conditions of service and career development require that key positions in municipal bodies should be comparable to similar positions in the state governments. Setting up of a State Cadre for key positions like Chief Officers, Assessment Officers, Engineers, Health Officers etc. have proved its worth and its adoption by other States is recommended. We realise in philosophical terms that there is a conflict between the recommendation to revert most civic functions to municipal bodies but at the same time, suggest that recruitment and posting of key municipal officers should be a state responsibility. While a few municipal bodies, with a proven record of competence, can be exceptions, by and large the active involvement of the state government cannot be avoided in this crucial area. Given the similarity of functions, the creation of state-wide cadres will also help urban development authorities and functional agencies like water and drainage boards.

6.8 Such statewide cadres however will be, inevitably limited in scope and cannot cover the wide range of levels and skills required in municipal administration. Over the years, in some States, the scale of pay and other conditions of service for Class II, III and IV municipal employees have been brought on par with these in the State Government. This is an important measure to ensure that 'per se' municipal service is a part of the larger governmental system and it is not, 'ipso-facto' inferior to service under the state government.

6.9 Though India has a long history of concern with administrative and technical training, the comments made about personnel management in general in the initial paragraphs apply to training as well. The concern has not matched, in continuity or scale, the nature and size of the problem. However a variety of training institutions at the national state and local levels exists. A brief description about their work is in order.

6.10 The Centre for Urban Studies in the Indian Institute of Public Administration, Delhi known earlier as the Centre for Research & Training in Municipal Administration, established in 1966 has probably the longest continuing record of research and training in subjects of urban management. The Centre has organised, over the years a number of training courses, seminars and workshops on a variety of subjects such as urban plan administration, urban project appraisal, urban water supply management, assessment of property taxes, control of building activities, etc. The target audience for these training courses has been mainly upper and medium level in municipal bodies and urban authorities such as Administrators, Chief

Officers, Engineers, Planners, etc. The Ministry of Works & Housing which has been assisting the CUS—IIPA has also been assisting 4 regional centres in Lucknow, Calcutta, Hyderabad and Bombay. The objectives and scope of activities of these regional centres are similar to that of the IIPA Centre. However because of their regional location, the audience at the Training Courses are usually middle to junior levels of municipal staff. The Calcutta Centre was closed recently.

6.11 The Town & Country Planning Organisation of the Ministry of Works & Housing has also been engaged in training courses and workshops particularly in city and regional planning and seminars connected with programmes of the Ministry such as small and medium towns development. The Central Public Health Organisation of the Ministry is similarly engaged in occasional seminars and workshops of the training nature. In addition, HUDCO has recently initiated a programme of training courses covering items such as project finance management, planning and design of low cost/low income shelter programmes, housing, finance, etc.

An Area of Major need

6.12 While each of these organisations has done commendably in sustaining over a period of time these training activities in spite of very limited resources, the fact remains that even their combined efforts amount to only a very small portion of the training needs. In particular their efforts have focussed on the senior echelons of municipal bodies and urban authorities. While the significance of this level for urban management is not denied it is to be recognised that formulation and upgrading of skills at the technician level constitutes an enormous gap at present. Whether in a large municipal corporation, or in sectoral undertaking like a water board or a development authority, the numbers of these technicians will run into several hundreds. While questions of urban policy, strategy and management continue to be debated at high levels of government, it is this large mass of technicians or para-professionals who in the field determine the quality of project implementation and service provision and therefore of their relevance and usefulness to the public. To illustrate, the most ambitious project for augmenting water supply is as good or as bad as the junior engineers and Overseers responsible for the distribution system make it to be. The strength and survival of a municipality or an utility undertaking depends more on its tax or fee management than its spatial planning strategy. Even in programmes like slum improvement the procedures are not and cannot be taught in a technical school but have to be learnt patiently on the ground. Though the number of technicians and supporting staff involved in this type of activities is very large, yet there has been practically no effort to assess their training needs. It is only recently that large organisations like CMDA and the Metro Water Board in Madras have begun to address this aspect.

The Academic Side

6.13 While under-graduate and post-graduate courses in city and regional planning, transport planning, etc, are offered in Universities and Institutes of Technology, Urban Management as such is not offered as a subject in itself. Engineering education continues to be in broad streams as before. Recently in some universities like the Anna University of Technology, Municipal Engineering has been introduced as a separate Graduate Course. The few Institutes of Management continue to concentrate on training for the corporate industrial or commercial sector with occasional departures such as seminars in the management of selected urban services. The Polytechnics and Industrial Training Institutes which offer broad spectrum courses in Engineering continue to be the principal source for the supply of technicians or junior engineers.

Training Needs Assessment

6.14. Given the very large numbers involved, the assessment of training needs therefore becomes an essential task. Such an assessment has to recognise some important constraints in the formulation of a training programme for urban management such as follows :—

- the different levels of audience belonging to a variety of organisations
- the considerable variety of the skills to be imparted
- the operational & procedural inadequacies in making use of the trained staff
- the integration of training programmes with career development.

A realistic assessment of training needs can help formulate a training programme where the focus and content would be relevant to the needs. While it may be attractive to consider a national effort in this regard given, the vast scale of the requirement a sense of priority is needed. The task has to be carried out essentially at the city and State level with the Central Government providing selective assistance.

The Training Plan

6.15. A training needs assessment should be approached in the same way as any other manpower planning and development exercise. Most of the State Governments have Technical Education Directorates which can undertake this type of assessment in collaboration with municipal bodies and urban authorities. Training institutions themselves can help as indicated in the case of Calcutta where CMDA took the assistance of the local Institute of Management.

Based on this needs assessment and the priorities, a training plan has to be formulated, which, inter alia, should cover the following :—

- the types of skills to be imparted
- the categories and numbers of personnel involved
- the frequency and duration of training
- the institutions where training will be carried out (in house, academic institutions, special purpose facilities etc.)
- the content of training, in outline: it is necessary to emphasise here that for urban management training, the broadening of the work context is as important as imparting skills.
- the requirements of trainers and special programmes for these training
- the facilities needed for implementing the programme such as space, equipment, library etc.
- the programme for preparation and distribution of teaching materials.
- the arrangements for administering the programme.

6.16. It is obvious, a training plan of this nature cannot be attempted at the national level straightaway. To begin with large municipal corporations, sectoral bodies and metropolitan authorities should be urged to undertake training needs assessment and preparation of training plans for their respective organisations.

At the state level, the State Government should undertake a similar assessment in respect of other municipal bodies and urban authorities. State Administration Academies or Institutes of local Government at the state level can be the nucleus for organising the training activities.

6.17. The national governments, role, as mentioned before should be mainly through selective but substantial assistance. Such assistance can cover —

- funds for training of trainers
- preparation and distribution of teaching materials
- capital grants for classroom, equipment and training facilities
- collaboration arrangements between different city level and state level programmes,

OBLIGATORY FUNCTIONS OF URBAN LOCAL BODIES

I. Public Health and Sanitation

- (a) Supply of safe and potable water and provision for inspection and analysis of piped water ;
- (b) regulating or abating offensive or dangerous trades, callings or practices ;
- (c) removing noxious vegetation and abating all public nuisances ;
- (d) public vaccination and inoculations, prevention and control of contagious, infectious and dangerous diseases ;
- (e) prevention of pollution of water and air ;
- (f) provision for rodent control ;
- (g) acquiring, maintaining and regulating places for the disposal of dead bodies including crematoria, cremation grounds and burial grounds and disposal of unclaimed human dead bodies and carcasses of animals ;
- (h) disposal of stray dogs and wild animals ;
- (i) school health programmes ;
- (j) clearing public streets, places and all spaces, which are open for enjoyment of public ;
- (k) collection and disposal of night soil and rubbish and preparation of compost manures ;
- (l) constructing and maintaining public latrines and urinals ;
- (m) construction, maintenance and cleansing of drains, sewers, drainage works and sewage works ; and
- (n) prevention of food adulteration.

II. Medical Relief

- (a) Establishing and maintaining public hospitals, dispensaries, maternity, child welfare and family planning centres, and ambulance service.
- (b) Maintaining and assisting the maintenance of veterinary hospitals ; and
- (c) Provision for anti-rabic treatment.

III. Public Works

- (a) Construction, maintenance, alteration and improvement of public streets, bridges, sub-ways, culverts, causeways and the like ;
- (b) Control and regulation of building activity ;
- (c) Lighting public streets, places and buildings ;
- (d) Planting and maintaining trees on road sides and other public places ;
- (e) Provision of housing for conservancy staff ;

- (f) Securing and removing dangerous buildings and places ; and
- (g) Construction and maintenance of cattle ponds.

IV. Education

Establish and maintaining pre-primary and primary schools.

V. Development

- (a) Constructing, altering and maintaining markets, shopping centres, slaughter houses, baths, washing places, dhobi ghats, drinking water stand-posts, wells, public parks, gardens, water troughs for cattle and maintaining tanks and grazing grounds ;
- (b) Construction and maintenance of parking places and vehicles stands ;
- (c) Improving agriculture including reclamation of waste land in the rural packets inside municipal limits ;
- (d) Preparation of comprehensive plans for development and growth of the town.

VI. Administrative and General

- (a) Preparation of annual and other reports ;
- (b) Maintenance and development of municipal property ;
- (c) Naming and numbering of streets, public places and premises ;
- (d) Erecting substantial boundary marks defining the limits of municipal areas ;
- (e) Regulation of traffic and provision of traffic signs ;
- (f) Removing obstructions, encroachments and projections from the public streets, places and spaces ;
- (g) Registering of births and deaths and vital statistics ;
- (h) Protecting life and property from fire hazards and making arrangements for extinguishing fires ;
- (i) Fulfilling obligations imposed by law and enforcement of rules, bye laws, etc. ; and
- (j) Promoting well-being of municipal employees and their dependents.

DISCRETIONARY FUNCTIONS

I. Public Health and Sanitation

- (a) Acquiring or assisting in the acquisition of suitable places for carrying on offensive and protected trades ;
- (b) Establishing and maintaining farms or factories for the disposal of sewage ;
- (c) Organisation, maintenance and management of chemical and bacteriological laboratories for detection of diseases, adulteration of food stuffs and drugs and research in the field of public health ; and
- (d) Watering public streets and places.

II. *Public Works*

- (a) Construction of dwellings for the poor and houseless ;
- (b) Providing housing accommodation for employees of local body ; and
- (c) Establishing and maintaining relief works at the time of natural calamities like fire, famine, flood, scarcity, etc.

III. *Education and Social Welfare*

- (a) Establishing, maintaining and assisting institutions of secondary and higher education ;
- (b) Undertaking cultural activities and assisting cultural institutions ;
- (c) Establishing, maintaining and assisting institutions of Physical culture ;
- (d) Undertaking measure and programmes for social and normal welfare of the citizens ;
- (e) Provision of milk or mid-day meals for school children ;
- (f) Undertaking measures for and assisting adult literacy and social education ;
- (g) Undertaking urban community development programme and promoting public participation ;
- (h) Organisation, maintenance and assistance to institutions for infirm, sick or incurable persons ;
- (i) Supply of milk to expectant or nursing mothers or infants ;
- (j) Providing and assisting the establishment of homes for orphans and destitutes ; and
- (k) Constructing, establishing and maintaining libraries, museums, community halls, swimming pools, places for entertainment and recreation, etc.

IV. *Development*

- (a) Development of building sites, construction of houses and their disposal ;
- (b) Encouraging formation of Co-operative house building societies and giving assistance to such societies ;
- (c) Undertaking schemes of slum clearance and programmes of redevelopment ; and
- (d) Provision of suitable accommodation for calves, cows, etc.

V. *Public Utilities*

- (a) Supply of electricity and gas ;
- (b) City transport services ; and
- (c) Milk supply schemes and setting of dairies, poultry and dairy farms.

VI. Administrative

- (a) Contributing to and participating in the activities of the local government institutes training centres and associations of local bodies ;
- (b) Arranging public receptions, ceremonies, entertainment, sports, etc.
- (c) Arranging and controlling fairs, melas and exhibitions ;
- (d) constructing and regulating the use of lodging houses, camping grounds, tourist bureau and rest houses ;
- (e) Establishment and maintenance of printing press and workshop for municipal and private work, if possible ;
- (f) Taking measure to control beggars and vagrants and providing for their relief ;
- (g) Undertaking commercial and industrial activities ; and
- (h) Conducting censuses and surveys .

VII. Miscellaneous

- (a) Establishing and maintaining nurseries for trees, plants and vegetables ;
- (b) Constructing and maintaining graneries, godowns, and cold storages, ware-houses and sites for preservation of food grains, food-stuffs and vegetables; and
- (c) Regulation of weights and measures.

FUNCTIONS OF MUNICIPALITIES

Name of the States	Obligatory	Discretionary
1	2	3
Karnataka	Construction and maintenance of public streets, places and buildings, extinguishing fires and taking measures against fire regulating dangerous or offensive trades or practices, removing encroachments in public places, acquiring, maintaining and regulating the places for the dead, protected water supply, naming and numbering houses, vital statistics, public vaccination, providing for animals, providing for public health and medical facilities for mental patients, etc.	Laying out new public streets, constructing, establishing and maintaining public parks, gardens, libraries, museums, mental hospitals, offices, rest-houses, etc., construction and maintenance of sanitary houses, encouraging ideal arts and industries, plantation, surveys, providing entertainment, promotion of public health and child welfare, supply of necessary things during scarcity, housing, maintaining orphanages, construction and maintaining of warehouses, dairy farms, transport, etc.
Andhra Pradesh	Maintenance and improvement of public streets, lighting, providing for burial, medical relief for poor, providing school education for poor, vital statistics, vaccination, preventive measures, drainage, water supply, sewerage disposal, naming streets and numbering houses, etc.	Higher education, executing development works in the fields like public streets, bridges, subways, water supply beyond the municipal limits, environmental improvement, regulating milk trade etc.
Punjab	Maintenance of public streets, scavenging, preparation of compost, regulating offensive trades or professions, removing encroachments in public places, school education, disposal of dead animals, vital statistics, measures against dangerous diseases, etc.	Executing works in various fields for development of public health and sanitation, controlling pollution, drainage, regulating constructions, levy of taxes, water supply, etc.
Kerala	Maintenance of public streets, lighting, water supply, vital statistics, precautionary measures against dangerous diseases, regulating offensive trades and practices, sanitation, education, public health etc.	Construction of water works, acquisition of land and building for improvement of streets, precautionary measures against fires, dangerous trees, tanks, etc., primary education, maintenance of public libraries, reading rooms, preparation of various improvement schemes and projects, etc.

1	2	3
Maharashtra	<p>Maintaining public streets, measures against fires, regulating offensive trades or practices, removing encroachments in public places, water supply, vital statistics, naming streets and numbering houses, public vaccination, providing school education, public medical relief and organising family planning centres, erecting municipal boundaries, welfare measures for SCs, STs etc.</p>	<p>Establishing and maintaining public hospitals, educational institutions, libraries, museums, lunatic asylums, houses for disabled persons, town-halls, rest houses etc., public parks and gardens, taking census, sanitations, etc.</p>
Uttar Pradesh	<p>Erection of boundary marks, regulating offensive, dangerous trades or practices, removing stray dogs, and obstructions in public places, acquiring, maintaining and regulating places for the disposal of dead, construction, altering and maintaining public streets, culverts, markets, latrines, public drains, drainage and sewerage works, maintaining works of public health, protected water supply, public vaccination, vital statistics, primary school education, protection against fires, maintaining finances of the board, fulfilling the obligations of the Act, etc.</p>	<p>Laying out new public streets, and acquiring land for that purpose, and executing master plans, constructing and maintaining public parks, gardens, libraries, museums, lepers homes, orphanages, babyfolds and rescue homes for women, lunatic asylums, washing places, tanks, wells, etc. promotion of education, conducting of census, relief works in times of local calamities, arranging for the disposal of sewage, preparation of compost, constructing tramways, promoting tourism, holding fairs and exhibition, promoting trade and industry, supply of milk etc.</p>
Rajasthan	<p>Construction and maintenance of public streets, lighting public places and streets, extinguishing fires and protecting life and property when fires occur, regulating offensive or dangerous trades, removing encroachments in public places, acquiring, maintaining and regulating places for the disposal of the dead, constructing public latrines, water supply, naming, and numbering houses, vital statistics, establishing and maintaining cattle ponds, etc.</p>	<p>Acquisition of land for public purposes, constructing and maintaining public parks, libraries, gardens, museums and reading rooms, sanitation, planting trees, conducting of census, disposal of sewage, providing public health and child-welfare, public entertainment, markets, holding fairs and exhibitions, supply of milk, ambulance service, establishing primary schools, housing orphans, etc.</p>

1	2	3
Bihar, Orissa & Tamil Nadu	Construction, maintenance of public roads, regulating of private roads and buildings, removal of encroachments in public places, removal and disposal of sewage, preparation of compost/manure, sanitation, regulating burials & prohibiting certain offensive trades and practices, public vaccination, water supply, vital statistics, education, etc.	Providing for and maintaining public latrines and urinals, construction of public drains, regulation of public bathing places, extinguishing and prevention of fire, establishing municipal markets, regulating slaughter houses, milk supply, undertaking water supply, lighting, drainage and sewerage schemes, etc.
	Water supply, lighting public streets, providing and maintaining drainage system and public latrines, sewage disposal, maintenance and improvement of public roads, numbering and naming of new public streets, regulating building activity, sanitation, providing for slaughter houses, regulating milk-trade, vital statistics and prevention of dangerous diseases, compulsory vaccinations, etc.	Numbering of houses, regulating the industrial activities, constructing and maintaining municipal markets, providing for public parking places and cart stands, providing for parks and gardens, etc.

OPERATION OF THE URBAN COMMUNITY DEVELOPMENT
PROGRAMME IN HYDERABAD

1. The Urban Community Development Project in the Municipal Corporation of Hyderabad was sanctioned as a centrally sponsored scheme in the year 1967 in G.O. No. 583, M.A. dated 20-9-1967 which started functioning in Ward No. 22 of the M.C.H. Hyderabad covering a population of about 50,000. The expenditure was shared between the Centre, State Government and the Municipal Corporation in the ratio of 2:1:1. The Scheme was transferred to the State Sector in the year 1969. The Project worked under the general administrative control of the Commissioner/Special Officer, Municipal Corporation of Hyderabad, but under the direct functional control of the Director.

2. The demand of the expansion of the Project in the late sixties and early seventies could not be resisted as it caught the imagination of both the Municipal Corporation and the people who found in it a solution to their felt needs. The urge to expand the coverage of the Project on the part of the Municipal Corporation synchronized with the demands of the people who felt that the project staff reached their levels to cater to their expressed felt needs. The programmes designed at the State level without any regard to the felt needs of the people at the grass root were not thrust on them. The past experience of failures of the Government programmes came as a challenge for the Organisers to evolve new strategies to achieve closer involvement of the beneficiaries and these earned good dividends. People, though reluctant and hesitant in the beginning, in course of time accepted the programme and involved themselves fully.

3. Based on the growing demands of the people in other areas the programme was extended to Ward 17 (Blocks 3 & 7) of Yakutpura area covering a population of about 31,000 in the year 1970-71. Standing Committee of the Corporation by a Resolution (MCH) No. 1764 dated: 26-6-1970 emphasised coverage of additional population of about 31,000 under the programme without any increase in the staff and additional allocations in the budget. The expenditure on local programmes was met by the Municipal Corporation of Hyderabad from its own funds although such a step meant greater effort and sacrifice on the part of the organisers who took this task as a challenge.

State Government Initiative to Expand the Project

4. The State Government being satisfied with the useful service rendered to weaker sections by the Urban Community Development and based on the request of the Municipal Corporation of Hyderabad, for expansion of the programme, sanctioned two additional projects in the year 1974 in G.O. Ms. No. 465, M.A. dated: 1-11-1973 on the condition that the expenditure on these projects should be met by the State Government and the Municipal Corporation of Hyderabad at 50% each. These two projects were started in Ward I (Block 6 to 10) Mushheerabad in the Hyderabad Division and Wards 6 and 11 in the Secunderabad Division of the M.C.H. which covered a population of about 1.2 Lakhs.

5. Apart from the above projects, three satellite Projects were started around the main project areas to cater to the demand of the population in the adjacent areas. These satellite projects covered a population of about 16,000 for which the programme expenditure was sanctioned by the Municipal Corporation of Hyderabad @ Rs. 20,000 each from its own funds, which constituted only 50% of the average expenditure.

6. *UNICEF Association with the Projects* : The UNICEF who were associated with Urban Community Development Project Hyderabad from 1969 offered financial assistance for expansion of the programme in all Wards of the M.C.H. Hyderabad. A scheme for covering the M.C.H. areas and twin cities under 12 Projects was drawn up and submitted to the UNICEF

through the State Government and Govt. of India in 1976. It may be explained that the dissimilarities and variations in the extent of jurisdiction and coverage of population was directly related to the levels of awareness, social and economic and environmental conditions in these areas.

7. The staff pattern suggested for the above projects was one Project Officer/Deputy Project Officer, Two Community Organisers and four Social Workers in regular pay scales for each Project.

8. In addition to the expansion of the Urban Community Development Programmes as mentioned above, the Government have included the Slum Improvement and Slum Housing Programmes in the City to the UCD Programmes in the year 1976 vide G.O. Ms. No. 88 Housing dated : 26-10-1976 and G.O. Ms. No. 526, M.A. dated : 18-11-1976. With a view to improve the living conditions of the Slum dwellers and helping them to construct pucca houses with the loan assistance from banks/HUDCO on the plots for which house site pattas were assigned to them.

9. Now the UCD Programme is functioning with 12 Projects as an integrated programme for the physical, social and economic development of the people particularly people living in slums and backward areas in the twin cities.

10. The UNICEF assistance has been continued according to the present Plan of Action, 1980-81 to 1984-85, and the UCD Project has been receiving assistance from the UNICEF at the rate agreed to in the Plan of Action.

Felt Needs Programmes Coverage

11. The felt needs of the communities particularly in the backward areas covered many items starting from civic amenities including health education, economic, social, cultural, recreational and civil defence etc. Some times it also extended to programmes like emergency relief organising voluntary core also. The variety in the programmes indicates the different social, educational and economic levels of the communities.

12. In the early stages of the working in 1967, it was found that the different communities in the city i.e. the developed and under-developed communities lived in their neighbourhoods as water tight compartments. Psychological factors like prejudices, contempt, jealousies, and hatred borne of poverty and suspicion divided them with strong barriers of caste and creed and economic status. As a result the civic authorities were faced with the non-co-operation from these slum communities, as they suspected that the UCD officials being government servants were there only to remove them and make false promises. Absence of social coherence, initiative, civic consciousness and motivation to improve the social and economical lot of these people was a great impediment in implementing successfully any welfare activity. Hence, for a Government employee working as a social worker to develop rapport with the local communities by itself was a difficult task. The magnitude of the population and the urgency of the problem demand a concentrated, concerned and continuous attempt by the community organisers for whom this programme itself was a new experience. Hence, the success of the project entirely depend upon the work of each individual Community Organiser who had to stimulate, guide and sustain the whole process by working with the individual groups and bringing in outside help when needed. The task required a great deal of patient sensitivity and commitment to the aims of the Project. It was difficult to find an appropriate type of training because the prevailing institutions lacked know-how suitable to this programme. Hence, these community organisers were asked to record and document the problems faced by them and the solutions reached and discuss them in their group meetings. Learning by their own experiences and living by their own decisions was their way of working. The spirit of competitive approach was helping these community organisers in giving out their best and soaking themselves fully in the programmes.

The Working Pattern

13. As the community organisers started working, they soon learnt the most common felt needs discussed by the people. The discussions with the people took place either through individual family contacts or in the group meetings. He acted like a catalytic agent and not as a School Master. Even the process is planned by the participants. The intervention of the Community

Organisers in the lives of these people was in the nature of a persuasion either to start new process of development or re-direct those already in progress. No particular formula or methodology, applied as a common factor or as a tool for all motivation activity. The essence of the method of approach was flexibility, modifying and adopting approaches to suit the different communities, be it an economic programme, health, nutrition, environmental improvement or housing. Nothing was thrust on these communities. The role they played was as inter-mediaris, administrative and the professional resources who could meet their felt needs. Although this was vague and frightening, it became more and more specific and encouraging as they got closer and closer to the people. The common methods of approaches were motivation, starting with the under privileged; obtaining co-operation from the privileged community; social action and involving the people as well as those at the decision making level in the various programmes giving them an opportunity to understand the problems of the people directly. Identification and selection of the leadership in the communities for training; establishing friendship with outside organisations; sharing the peoples' way of life to achieve direct exposure of slum leadership to problems; and making them understand problems directly from the authorities; building optimism and groups were some of the ways adopted by the Urban Community Development Programme.

Programmes taken up by The Urban Community Development Programme

14. *Water An Environment* : This programmes is a part of State Five Year Plan activity under the Scheme for Environmental Improvement of Slums. Till the year 1979, this was taken up either as Slum Improvement, Slum Development or sporadic Environmental Improvement Programme with the funds provided by the State Government. A sum of Rs. 370 lakhs was spent on the various items like water, street lights, sewer line, metal roads, community lavatories etc. in 215 slums. This was not enough and could not meet even the fringe of the problem. Hence spending from Municipal Corporation of Hyderabad funds was resorted to in 1980. For the VI Plan Period the total outlay for the Municipal Corporation was estimated at Rs. 395 lakhs.

15. The Environmental Programme under VI Plan also included roads, drains (sewer and storm water) community lavatories, public water supply, street lights, parks and play grounds, washing platforms, pavements etc. The per capita expenditure although limited to Rs. 200 for the families covered by Government grants, the Municipal Corporation as a part of Urban Community Development activity for community social action and for purposes of utilisation of local initiative, self-help and reliance, introduced community halls (self-help and sharing with voluntary agencies) and also in most of the cases covered sewer lines also. The total coverage during this period is far exceeding the initial expectation because of the involvement of the people and awareness generated in the community. The need expressed is more than the financial capacity of the Municipal Corporation to meet. The present condition of the slums is so much better that it is difficult for a visitor to imagine the past appalling conditions.

16. Out of 455 slums during the years 1981 to 1983, 156 slums have been covered and excepting the shelter conditions the environment can easily match the surrounding conditions and are no longer the sources of breeding of diseases. What is needed in these slums is social and economic programmes and shelter improvement for which separate programmes are designed. The involvement of local people and proper identification of felt needs precede any such programmes.

17. The social programmes for maintenance of the civic facilities by the community itself is now identified as a felt need and it is to be designed keeping in view of procedural and statutory constraints.

The Integration of Environmental Improvement with Community Development

18. The upgradation of a slum community according to a planned layout requires the willing co-operation of the residents so that they give up part of their plots or part of their buildings in order that straight lanes may be made or drainage lines laid. It has not been uncommon in many cities for engineers to come into slum areas selected for political and technical reasons, and arbitrarily instal water or drainage systems or construct low cost housing without much consultation with local residents. One classical result is that the attitudes of the people are "you built it so you could maintain it." This is one of the explanations for the maintenance problems which afflict many housing and slum improvement projects. When community workers,

indicate when the people are ready for these improvements and also act as a liaison between the people and the engineers the changes are more likely to be welcomed, understood and long lasting.

19. *The systematic linking of voluntary organisations with slum communities* : There are many under-utilised resources in any city besides governmental ones. Some of these are well established local branches of international service organisations such as the Lions and Rotary Clubs. Others are national bodies such as Lijjat Papad. Still others are local groups ranging from University service organisations to neighbourhood sports and cultural groups. One of the goals of the Hyderabad Urban Community Development Project is the identification and systematic involvement of such groups in slum development activities. This is a very important resource which is often dissipated by not being used systematically.

20. *The third linkage, which has many implications, is that between slum residents and financial institutions in the so called "formal sector" of the urban economy* : The very fact that much of the economic activity of the urban poor takes place in what is termed the "Informal Sector" of the economy indicates that the existing linkages are insufficient. Some studies have shown that there is inadequate understanding and awareness of the important functions fulfilled by the urban poor in the economy of cities.

21. In addition to the innumerable "services" performed by people such as domestic servants, dhobis, dudhwalas, fruit and vegetable vendors, kabariwallas, snake charmers, tamsawalas, etc., any large city has a host of slum family based enterprises. These enterprises are usually labour intensive and feed larger enterprises in the formal sector of the economy. They range from beedi making and agarbatti making to leather work, basketry, textiles and carpentry to metal work and even light industries. If these service enterprises cease to function, there would be serious lacunae in both urban social life and the urban economy.

Banks

22. One of the important contributions of the Hyderabad Urban Community Development Project has been to persuade banks to extend loans to selected categories of slum workers. For example, loans have been extended to cycle rickshawalas to enable them to purchase their own rickshaw. This has meant that rickshaw drivers have been able to make loan payments at a rate lower than that of their previous owners of their vehicles. For the first time they have had to experience dealing with a bank. This immediately decreases their "marginality" as citizens and draws them more into the formal system. By the same token, it is a new educational role for the banks. The banks probably begin by feeling that it is an opportunity for them to perform an act of charity. But closer analysis will show that it is also good banking business. The experience with small loans seems to indicate that the rate of recovery is very high if the ground work is done properly.

23. In addition, a considerable amount as aggregate capital may be involved. For example, in the plan to assist 13,000 slum dwellers to build their own houses over the next two years, 13,000 loans of Rs. 4000/- each comes to Rs. 5,20,00,000 or more than rupees five crores investment from the urban poor. Even if only half of this goal is reached, it is still more than Rs. 2.5 crores.

Shelter

24. Improvement of shelter under the Urban Community Development Programme is only one of the means of social change and therefore self help housing is introduced for the slum communities. Under this process the individual family and the group is involved fully. The proposed layout pattern, extent of plot area, the road pattern, location of the open spaces, identification of the target group with individual plot, the design for the house consistent with the predominant profession and the size of the family, are designed in consultation with the slum communities. The advantages and disadvantages of the programme are explained so that the community is prepared after a series of meetings with the representative of Urban Community Development.

Health Programmes

25. In order to have an effective implementation of health programme along with the environmental improvement, 18 slums were selected in 1980 covering a population of 50,000 under the "Integrated Medical & Health Care Programme" with the help of 18 existing urban family welfare centres. These centres have been converted into weekly mobile units visiting the identified slums every week until the targets are achieved. The slum communities provide accommodation and the target group takes off from daily work to receive this service. It was planned to achieve 100% immunisation, 100% pre and postnatal care and 100% treatment of minor ailments with family planning and health education. This programme has achieved better results than the departmentally administered programme.

Special Nutrition Programme

26. When the programme was in a stalemate in the year 1980 with all the 230 centres closed down for want of people's response it was entrusted to Urban Community Development Department by the Health Department of the Municipal Corporation. The negative legacy inherited in June 1981 by the Urban Community Development Department was revitalised by an effort which fully involved the slum communities. It started by opening new centres in the slum areas. There was resistance for the R.T.E. food from the parents of working class children who were later sent in groups at the cost of the Urban Community Development project to visit the R.T.E. factory to get familiar with the ingredients of the food, its processing and its usefulness for improving nutrition status. As a result there was marked improvement in the response and acceptance. The project is now running 212 centres.

27. Apart from these normal programmes, special nutrition programme for the selected Balwadies in the slums like Afzal Sagar, Wadder Basti and other 9 centres of Secunderabad is undertaken by supplying milk to the children in mid-day with the assistance of Government Dairy Development Corporation and ICSW, Cathelic Relief Service and All India Women's Conference. This covers about 1000 children.

Education

28. This programme is intended to mould the child at the pre-school age. Educational programmes like Balwadies, Creches, Anganwadies, Coaching Centres, Adult Literacy Centres, Reading Rooms and Libraries, Community T.V. Sets under matching grants, film shows etc., in slums are taken up based on the local needs and peoples involvement. The Balwadies and Anganwadies cover children of the age group of 3 to 6 years while the creches are for the children below 3 years. Health care, nutrition, physical development, literacy, development of sports and cultural talents, inculcation of good habits and discipline etc., are taken care of at these centres which are run in collaboration with the local voluntary organisations. The Anganwadies have been working under the ICDS programme and Urban Community Development Project co-ordinates with local voluntary organisations. The activities like Adult Literacy Centres, Self-Help, Reading Rooms and Libraries and Community T.V. sets supplies in slum areas have been found useful in bringing the local communities, particularly the youth, together.

Training in Skills

29. 98 Sewing Centers involving 2940 women have been run very successfully by Mahila Mandals organised by the Urban Community Development Programme. This number and coverage keeps changing as the programme is purely based on the felt need and is catering more to the lowest of the low income groups in the backward areas in the slums where the unskilled working class is more. This activity is undertaken only through such Mahila Mandals established by the Urban Community Development Project and to whom the training in running of centres is given.

30. Training courses like sewing machine repairs, fabric paintings, Nirmal Painting, food processing and preservation, making of electronic components with the E.C.I.L. help, training for the office bearers of the Mahila Mandals on the methods and procedures of running a society. T.V. and Radio mechanism are organised exclusively for women.

31. These women's organisations who have close rapport with Urban Community Development officers discuss the problems and change their working methods to suit the requirements of the

Urban Community Development norms and involve the slum Communities even in these programmes. Thus the psychological barriers based on economic and social inequalities are sought to be removed by these programmes.

Economic Support Programmes

32. Various special economic support programmes funded by lead banks for scheduled castes, scheduled tribes, etc. and administered by the Hyderabad District Collector are linked with Urban Community Development Programme. In order to make this programme more effective links have been developed with District Co-ordination Committee of which the Collector is the Chairman with whose co-operation the entire Government Economic Support programme for the Weaker Sections has been channelised through the Urban Community Development Department. The District Collector and the Director, Urban Community work in close co-ordination and rapport. The meetings of the lead work have been decentralised upto the Project level with Project Officer as the Convenor.

33. Apart from these, the Urban Community Development Department arranges loans for poor women trained in the Urban Community Development centres for purchase of sewing machines. The motivation programme for repayment of these loans is a part of the monitoring system of the Urban Community Development Project.

House Site Pattas as an Economic Programme

34. As a mean of involvement of the people and to improve their assets for future shelter improvement a system of closer co-ordination has been developed with the District Collector, who have revamped the entire system of issue of pattas to ensure effective and proper coverage. Identifying the correct target group and the area, preparing the layout etc. is done by the project. The Pattas are given by the Revenue Divisional Officer on the basis of these recommendations. While identifying these families care is taken to take all social and economic factors into consideration.

Slum Unity Organisations

35. Formation of Community Organisations for the slums and backward areas is a popular activity of the Urban Community Development as a means of creating rapport and for leadership training. The activity has caught up well and there are now 223 Basti Development Committees, 135 Youth Organisations, 99 Mahila Mandals involving 8944 members actively working with the Urban Community Development and carrying out the Urban Community Development Programmes. There are other organisations numbering between 250 to 300 who are undertaking sporadic activities under the matching grant programme of Urban Community Development Department such as eye camps, seminars, cleanliness drives etc. These organisations are the backbone of Urban Community Development Projects.

Community Involvement Programmes

36. Community Involvement is an essential prerequisite for any Urban Community Development programme and no programme is mechanically thrust on the people. Every activity is involvement oriented either in the form of individual, family or group. In order to achieve stronger social bonds the programmes which are common to all the slums are designed with the concurrence of the representatives of the slums. For the purpose a Federation of Mahila Mandals is formed to create opportunities for mutual interaction and feedback. A United Cultural Organisation and other such common social organisations were formed. The involvement of the non-Governmental organisations of purely voluntary nature such as Rotary, Lions, Giants International, Citizens Welfare Council, Welfare Council Progressive Urban Trust, Jana Kalyan Society, APSA, YMCA, Youth Welfare Organisation who are outside the Urban Community Development is also a peculiar feature of this activity. Matching grants are given for conducting seminar etc. on the problems concerning the poor. Some organisations have come forward, to share the burden of the slum dwellers in the matters like housing and health.

Conclusions

37. With the size and nature of programme activity expanding case studies are conducted periodically for every project and subjective analysis of the factors capable of creating an impact on the

masses (target group) and objective evaluation of the project performance is done. It would be difficult to document their entire achievement, innovative approaches, techniques employed and possibility of replication by the project staff itself. The amount of labour put in by the Project staff and the social changes that are fast taking place cannot be properly explained as data is lacking for the period 1970—80. Before the organisation becomes unwieldy it may be necessary to have a periodic evaluation. The family and slum profiles data needs to be computerised and analysed to properly project the changes in the communities. There has been considerable growth in the economic and social status of these communities. There is already a trend of a dependance on the Urban Community Development Project even in the economically bettered communities.

38. These activities no doubt demonstrate that the classical community development approach to the problems of the urban poor can be effective both in providing improved social services cheaply and also for meeting the basic problems of poverty.

It also shows that despite the central problem of poverty, there are enormous potential economic resources in most slum communities which can be actualised with the help of sensitive community workers.

It shows that one key to success in community development is the staff and its approach. In fact, the selection and training of staff is probably the most important element in any community development programme.

It demonstrates the importance of the effective co-ordination and use of both internal and external resources.

It also demonstrates the importance of certain basic linkages in the development process. These include :

- (a) The integration of physical improvements within the community development process.
- (b) The systematic linking of voluntary organisations with slum communities
- (c) The systematic linking of slum residents with financial institutions in the formal sector of the urban economy.



TASK FORCES ON HOUSING AND URBAN DEVELOPMENT

IV

SHELTER FOR THE URBAN POOR AND SLUM IMPROVEMENT

PLANNING COMMISSION
GOVERNMENT OF INDIA
NEW DELHI

SEPTEMBER 1983



**TASK FORCES
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**IV
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COMPOSITION OF THE TASK FORCE

Chairman

SHRI LOUIS M. MENEZES : Joint Secretary,
Ministry of Works and Housing.

Members

SHRI KIRTEE SHAH : Ahmedabad Study Action Group,
Ahmedabad.

DR. MEERA BAPAT : Centre for Development Studies and
Activities, Poona.

SHRI S. S. TINAIKER : Secretary, Housing Department,
Government of Maharashtra, Bombay.

SHRI H. U. BIJLANI : Chairman and Managing Director,
Housing & Urban Development
Corporation.

Member-Secretary

DR. RAKESH MOHAN : Senior Consultant, Planning Commission.

CONTENTS

	PAGE
PREFACE	(ix)
SUMMARY OF FINDINGS AND RECOMMENDATIONS	(xvii)
I. REVIEW OF EXISTING POLICIES AND PROGRAMMES AFFECTING SHELTER FOR THE URBAN POOR :	
Introduction	1
Slum Clearance and Slum Improvement	2
City Improvement Trusts, Housing Boards and Large Scale Land Acquisition	4
Role of the Housing and Urban Development Corporation	5
Role of Co-operatives	5
Plan Objectives and Stated Policy	6
Land and Housing Policy in Delhi	7
Integrated Urban Development Programme and Integrated Development of Small and Medium Towns	8
II. EXISTING SITUATION OF SLUMS : MAGNITUDE OF THE PROBLEM :	
Introduction	11
Definition of Slum : Slum Areas Legislation	11
The Content of Slum Legislation	13
Estimating the Magnitude of Slum Population	14
Existing Estimates of Slum Population	17
Task Force Estimates of Slum Population	19
Conditions in Slums	21
Other Major Characteristics	22
Tables	24
III. UNIVERSAL SLUM IMPROVEMENT BY THE YEAR 2000 : PROBLEMS AND PROSPECTS :	
A Brief History	44
Scheme for Environmental Improvement of Slums	45
Evaluation of the Scheme for Environmental Improvement of Slums	49
Universal Slum Improvement by the Year 2000	50
Investment Requirements for Universal Slum Improvement 1985—2000.	56
Tables	57
IV. IMPEDIMENTS TO HOUSING INVESTMENT BY THE POOR :	
The Role of Legislation	64
The Constraints of "Illegality"	69
The Limits to Improvement	70
The Need for Change in Programmes and Policies	72

	PAGE
V. EXISTING INNOVATIVE PROGRAMMES IN SHELTER AND SLUM IMPROVEMENT :	
Introduction	73
Similarities and Differences	73
Special Features	74
General Recommendations	80
APPENDIX I—CASE STUDIES OF INNOVATIVE PROGRAMMES :	
Urban Community Development Project, Hyderabad.	83
Weaker Section Housing, Vishakhapatnam.	86
The Bustee Improvement Programmes, Calcutta.	89
Sulabh Shauchalaya, Bihar	94
The Slum Rehabilitation Project at Vasna, Ahmedabad.	96
APPENDIX II—CASE STUDIES OF HOUSING INVESTMENTS BY THE POOR :	
Introduction	105
Ganeshnagar	106
Bibwewadi	112
APPENDIX III—EVALUATION OF SITES AND SERVICES PROJECTS	119

LIST OF TABLES

No.	Subject	Page No.
2.1	Estimated Slum Population by Size Class of Towns and Cities, 1981 (NBO)	24
2.2	Slum Population in Class I Cities— All India, 1976-77 (NSSO)	24
2.3	Coverage of National Sample Slum Survey, 1976-77—All India	25
2.4	Statewise Distribution of Slum Population by Size Class, 1976-77 (NSSO)	26
2.4A	Statewise Estimate of Slum Population—All India, 1976-77 (NSSO)	27
2.5	Statewise Coverage of Slums in National Sample Survey, 1976-77.	28
2.6	Distribution of Slum Population According to Size Classes (A Comparison of Sources)	30
2.7	Estimates of Identified Slum Population in Selected States in India (TCPO)	31
2.8	Percentage of Slum Population in Selected States (Comparative Statement : NSSO and TCPO)	32
2.9	Estimates of Slum Population from different Sources for Metropolitan Cities in India	33
2.10	Task Force Estimates of Slum Population by Size Class, 1981— All India	37
2.11	Task Force Estimates of Statewise Distribution of Slum Population, 1981	38
2.12	Task Force Estimates of Slum Population in Million Plus Cities, 1981	40
2.13	Density of Population and Average Household Size in Slum Areas	41
2.14	Some Characteristics of Slum Dwellers, 1976-77 (31st NSS Round)	42
2.15	Percentage Distribution of Slum Population by Type of Housing Facility, 1976-77 (NSSO)	43
3.1	Progress of Scheme of the Environmental Improvement of Slums—All India	57
3.2	Statewise Progress of the Scheme of Environmental Improvement of Slums, 1980-83—Population Covered	58
3.3	Coverage of Environmental Improvement of Slums in Metropolitan Cities, 1983.	59
3.4	Slum Population in India : Projections, 1981—2000	60
3.5	Slum Population yet to be Covered—All India, 1983	61
3.6	Slum Population yet to be Covered—Metropolitan Cities, 1983	62
3.7	Investment Requirements in Low-income Urban Settlements, 1985—2000	63

P R E F A C E

The phenomenon of rapid urbanisation has brought with it an even more rapid increase in the number of dwellings in areas generally regarded as slums. Although the problem is essentially one of overall poverty, there are different dimensions to the provision of adequate shelter. There are first the physical surroundings which can be improved mainly by public authorities so that the surroundings in which the poor live have at least adequate drainage, sanitation, water supply and other physical conditions leading to a better hygienic environment. Second, the actual structures that the poor live in can essentially be improved by themselves—but only if they are allowed to do so and assisted in terms of financial and physical resources. Third is the whole social and economic environment beyond the mere physical conditions in which the urban poor live. This Task Force has attempted to address all these three dimensions of the problem of shelter for the urban poor and slum improvement.

The genesis of the Task Force lay in a special ad-hoc meeting called by Dr. Manmohan Singh, then Member-Secretary, Planning Commission on June 25, 1982, to discuss a background paper: "Strategy for Housing and Urban Development—Some new Perspectives" prepared in the Planning Commission. This meeting was arranged in recognition of the acceleration in the rate of urbanisation which had been recorded by the 1981 Population Census. The main recommendation of that meeting was to set up 4 Task Forces.¹

1. Planning of Urban Development
Chairman—Professor Asok Mitra.
2. Financing of Urban Development
Chairman—Professor Raja Chelliah.
3. Management of Urban Development
Chairman—Shri K.C. Sivaramakrishnan.
4. Shelter for the Urban Poor and Slum Improvement
Chairman—Shri L.M. Menezes.

Member-Secretary to all the Task Forces—
Dr. Rakesh Mohan, Senior Consultant, Planning Commission.

Shri Louis M. Menezes, Chairman of this Task Force on "Shelter for the Urban Poor and Slum Improvement" is Joint Secretary in the Ministry of Works and Housing with long experience in shelter and slum improvement programmes.

¹ Further details on the June 25, 1982 meeting are given in the Report of the Task Force on "Planning of Urban Development".

(x)

He was Member-Secretary, Madras Metropolitan Development Authority when the innovative programmes on shelter were started there. The other members of the Task Force represent varied and wide experience in these issues—academic, field activism among the poor, administrative and financing experience. All the members served voluntarily in addition to their normal duties and gave generously in terms of time and skills despite their extremely busy schedules. Appendix P-1 gives the notification of the Task Force and its terms of reference and composition.

The Task Force was inaugurated by Prof. A.M. Khusro, Member, Planning Commission on February 10, 1983. Three further meetings were held on 26th and 27th March in Hyderabad, 30th and 31st May and finally on 19th and 20th August in New Delhi. The meeting in Hyderabad was held in order to assess the Urban Community Development Programme there and was hosted by the Hyderabad Municipal Corporation and the Hyderabad Urban Development Authority. Shri K.V. Bhandarkar, Person-in-charge, HUDA and Dr. T. Rajagopalachari, Director, Urban Community Development participated in the meeting of the Task Force and made arrangements for the field visits. Their assistance in the Task Force deliberations is gratefully acknowledged. Shri H.U. Bijlani hosted the meetings in Delhi at the Housing and Urban Development Corporation and provided all facilities. He has also taken great interest in the Task Force and provided any information requested on HUDCO operations. His assistance has been invaluable in the work of the Task Force.

Dr. Rakesh Mohan who has been Senior Consultant in the Planning Commission from December 1980 to September 30, 1983, has been the driving spirit behind the four Task Forces. He has had wide experience in urban problems and has done specific assignments in South America while working at the World Bank from 1976 to 1980.

The Task Force discussed the entire range of programmes and policies in the urban development sector which, in one way or another, have affected housing for the urban poor and the problem of squatter settlements. The preliminary materials for discussion on main issues were put together by individual members, each of whom prepared a background paper. These were issued as "Urban Development Task Force Papers" and are listed in Appendix P-2.

The Task Force decided that it would be futile to isolate the problem of housing of the poor and squatter settlements from broader issues of urban development investments, policies and legislation. It was, therefore, felt that despite the risk of some overlap with the terms of reference of the other three task forces, it would be more realistic and useful to establish the correct linkages between housing for the urban poor and the wider issues in urban development. The Task

Force accordingly reviewed policies and programmes in social housing, slum clearance and improvement and urban land within the time available. The Task Force discussed the role of urban authorities, housing boards and HUDCO in relation to housing for the poor, the role of housing cooperatives in this regard, the whole question of credit for house construction by the weaker sections and various institutional and organisational matters, particularly in respect of community involvement in these programmes.

Many individuals and organisations have helped in the work of the Task Force. The Town and Country Planning Organisation deputed two of their officers Shri M.B. Mathur and Shri V.P. Upadhyaya for the Secretariat, along with Shri O.P. Madan for typing assistance. The Task Force is indebted to the then Chairman of T.C.P.O. Shri L.M. Menezes and Shri E.F.N. Ribeiro, Chief Planner, T.C.P.O. for making this possible. A special word of recognition must go for Shri M.B. Mathur who has worked tirelessly in piecing together the statistical information presented in this report. The Ministry of Works and Housing also expedited a research grant for Dr. Meera Bapat, Member of the Task Force, for doing field case studies appended to this report. Shri Vivek Khadpekar of the Centre for Development Studies and Activities, Poona, assisted Dr. Bapat in gathering and recording the information.

The work on slum population was helped by a number of individuals. Thanks are due to Shri P.S.A. Sundaram, Director, Urban Development and Smt. V.R. Sundaram, Department of Urban Development, Ministry of Works & Housing for their help in making available to the 'Task Force' data on slum population, coverage of beneficiaries under the scheme for Environmental Improvement of Slums and the various official notes on Slums prepared in the Ministry. We are again grateful to Shri E.F.N. Ribeiro, Chief Planner, Shri J.S. Sahani and Shri O.C. Sharma, Town and Country Planning Organisation, Government of India for supplying us State-wise data on slum population and on the progress of the Environmental Improvement of Slums Scheme, currently monitored by them and also to Shri Abu Nazim of the same organisation and to Shri Ganga Dhar Jha, Indian Institute of Public Administration for their help in making available various reports and documents and other literature on slums in the country. Thanks are also due to Dr. J. L. Mongia, Joint Director and Shri K.P. Singh, National Building Organisation for furnishing the NBO estimates of slum population in the country. We are also grateful to Smt. Kunda Kadam, Deputy Municipal Commissioner, Bombay Municipal Corporation for sending us the Directory of Slums in Bombay prepared by the Government of Maharashtra.

The case studies on innovative arrangements were compiled by Shri Kirtee Shah from information supplied by each of the organisations reported on. This information was supplied readily and quickly by them in response to a request

from the Task Force. It is hoped that the description of these innovative cases will help in inspiring other cities and towns in adopting some of these arrangements in providing shelter and other services for the urban poor.

Able secretarial assistance was provided in the Secretariat throughout the duration of the Task Force by Sarvashri B.K. Khera, B.C. Sharma, M.L. Sharma, Setia, Krishan Gopal and Hari Singh Yadav of the Planning Commission and Shri A.B. Saxena and Shri G.S. Hora of the Ministry of Works and Housing.

All the members have contributed generously of their time and interest intensively to be able to complete this report in the stipulated time. We hope that the recommendations will find immediate reflection in the Seventh Plan formulation.

No. PC|H|1|9|82

GOVERNMENT OF INDIA

PLANNING COMMISSION

(Housing, Urban Development and Water Supply Division)

New Delhi,

January 25, 1983.

In order to examine issues related to the Strategy for Housing and Urban Development, the Planning Commission has decided to appoint four Task Forces so that policies and programmes in this field may be formulated with a proper perspective in the Seventh Five Year Plan.

2. The Task Forces are as follows:

- A. Task Force on Planning of Urban Development.
- B. Task Force on Financing of Urban Development.
- C. Task Force on Management of Urban Development.
- D. Task Force on Shelter for the Urban Poor and Slum Improvement.

The composition and terms of reference for each Task Force are given in the Annexures 'A' to 'D'.

3. Non-official members of the Task Forces shall be entitled to TA|DA as permissible to Grade-I officers of the Government of India and will be paid by the Planning Commission. TA|DA to official members will be paid by their parent departments.

4. The Task Forces are requested to furnish their final reports to the Planning Commission by June 15, 1983.

5. All correspondence to these Task Forces may be addressed to Dr. Rakesh Mohan, Consultant, Planning Commission, New Delhi.

Sd|
(K. C. AGARWAL)
Director (Administration).

1. Chairmen of Task Forces
(by name).
2. Member of the Task Forces
(by name).

Copy for information to:—

1. PS to Dy. Chairman
2. PS to Member (F)|(H)|(M)|(K)
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4. All Heads of Divisions
5. Admn. I
6. Accounts-I
7. General Branches I & II.

Sd|
(K. C. AGARWAL)
Director (Administration).

No. PC/H/1/9/82

GOVERNMENT OF INDIA
PLANNING COMMISSION

(Housing, Urban Development and Water Supply Division)

Yojana Bhavan,
New Delhi,
2nd July, 1983

In pursuance of Planning Commission Office Memorandum of even number dated 25th January, 1983 regarding the Task Forces on (a) Planning of Urban Development, (b) Financing of Urban Development, (c) Management of Urban Development and (d) Shelter for the Urban Poor and Slum Improvement, it has been decided to extend the term of these Task Forces till the 30th September, 1983.

Sd/-

(K. C. AGARWAL)
Director (Administration).

1. Chairmen of Task Forces (by name).
2. Members of the Task Forces (by name).

Copy for information to:—

1. PS to Dy. Chairman
2. PS to Member (F)|(H)|(M)|(K)
3. PS to Secretary
4. All Heads of Divisions
5. Admn. I
6. Accounts-I
7. General Branches I & II

Sd/-

(K. C. AGARWAL)
Director (Administration).

SHELTER FOR THE URBAN POOR AND SLUM IMPROVEMENT

The acceleration in the rate of growth of urban areas has been accompanied by an even greater increase in the urban poor as well as in habitations generally regarded as slums. This situation can be expected to continue with the continuing increases in urbanisation and, perhaps, get worse, if imaginative but realistic programmes are not designed such that the urban poor are able to get access to appropriate opportunities for habitation. The Task Force is expected to examine the whole issue of the provision of shelter for the urban poor with a 15-year perspective.

The terms of reference for the Task Force are:

1. To examine critically the existing policies and programmes concerned with shelter for poor and identify the key problems encountered.
2. To review the existing local and other legal impediments which tend to hamper the poor from making their own housing investments.
3. To estimate the affordable demand for shelter that may be expected from the urban poor over the next 15 years.
4. To identify existing specific innovative programmes which have been found to be successful in different urban areas and to suggest ways and means for their adoption in other places.
5. To suggest policies and programmes for shelter for the urban poor which are financially feasible as well as institutionally viable. This may include specific consideration of the feasibility of providing housing finance in small amounts such that incremental development becomes easier for both existing and new units.
6. To suggest measures for universal slum improvement and to estimate the implied financial costs.

The Members of the Task Force will be:—

- | | |
|--------------------------|---|
| 1. Shri Louis M. Menezes | Joint Secretary, Ministry of Works and Housing—
Chairman. |
| 2. Shri Kirtee Shah | Ahmedabad Study Action Group, Ahmedabad—
Member. |
| 3. Dr. Meera Bapat | Centre for Development Studies and Activities,
Poona—Member. |
| 4. Shri S. S. Tinaiker | Secretary, Housing Department, Government of
Maharashtra, Bombay—Member. |
| 5. Dr. Rakesh Mohan | Senior Consultant, Planning Commission—Member-
Secretary. |

Shri H. U. Bijlani, Chairman and Managing Director of Housing and Urban Development Corporation was appointed as Member prior to the second meeting.

LIST OF MATERIALS SUBMITTED TO THE TASK FORCE ON "SHELTER FOR THE URBAN POOR AND SLUM IMPROVEMENT"

"Shelter" Task Force Papers

- | | | |
|------|------------------------------|---|
| S. 1 | Meera Bapat | A Review of the Existing Local and Other Legal Impediments which tend to hamper the Poor from making their own housing. |
| S. 2 | H. U. Bijlani | Evaluation of Sites and Services Projects. |
| S. 3 | H. U. Bijlani | National Building Standards Codes and Statutory Regulations in the Field of Housing Construction/Development. |
| S. 4 | S. S. Tinaiker | Environment Improvement of Slums and its Cost. |
| S. 5 | Kirtee Shah | Successful Innovative Programmes for the Urban Poor: A Selective Review—Part I. |
| S. 6 | Meera Bapat | Slum Areas Legislation: Its Relevance for Slum Improvement and Upgradation. |
| S. 7 | Pradip Ghosh
Rakesh Mohan | Housing in the National Accounts: A Critical Review of Concepts and Sources. |
| S. 8 | M. B. Mathur
Rakesh Mohan | Existing Situation of Slums: Magnitude of the Problem. |
| S. 9 | L. M. Menezes | Review Social Housing Schemes in Five-Year Plans. |

SUMMARY OF FINDINGS AND RECOMMENDATIONS

A. FINDINGS

I. SOCIAL HOUSING SCHEMES

1. The Task Force reviewed the history of the social housing schemes introduced from the First Five Year Plan onwards, the investments made, the pattern of housing envisaged and the impact of these Schemes on the urban poor and came to the following conclusions:—

- (a) That the bulk of the investments has gone towards construction of formal housing by Government, semi-government agencies and co-operatives.
- (b) That over a period of time even the cheapest house built by public agencies was way beyond the means of the Economically Weaker Sections and Low Income Groups.
- (c) That the total production of houses through such budgetary support over a period of 30 years is a miniscule of the country's total effort and a fraction of the requirement.
- (d) That despite objectives in favour of the poor stated in the plan Documents, there is insufficient evidence as to the extent that the urban poor have benefited from these schemes.
- (e) That the scheme criteria fixed for eligibility for public housing are outdated and the selection procedures adopted by public agencies often fail to reach out to large segments of people in need.
- (f) That despite a distinct shift of emphasis in the Fifth and Sixth Plan documents from formal housing to sites and services and self-help programmes, there is no evidence that this has actually happened.
- (g) That monitoring of public investment on housing through the budget in terms of who has benefited is inadequate. It is particularly noted that the Sixth Plan envisaged an investment of Rs. 485 crores by the State Governments to produce roughly 16.02 lakh EWS housing units mostly in the shape of sites and services and that as of mid 1983 there is practically no information as to how the State allocations have been spent and who benefited.
- (h) The conclusion reached by the Task Force is that although these plan schemes have played an important role as catalysts in the housing sector initially they have mostly benefited the middle and higher income groups, and in terms of the total requirement have made a marginal contribution only.
- (i) The bulk of the housing of all income groups, particularly the poor, is supplied by private initiative in a variety of ways. This is so even in cities like Delhi where public agencies have near monopolist control over land and a formidable set up for construction. Hence budgetary allocations would go a much longer way if utilized almost exclusively for infrastructure and land development with heavy emphasis on delivering cheap serviced sites to the poor.

II. SLUM IMPROVEMENT

2. The Task Force reviewed the history of Government's efforts to tackle the problems of slums and squatters. It was noted that the slum clearance and improvement scheme was introduced in 1956. The emphasis was shifted from slum clearance to improvement in 1972 through the scheme for environmental improvement of slums as a result of the recognition that the policy of clearance and rehabilitation of slum dwellers had become increasingly impractical. It was particularly noted that the per unit cost under the clearance scheme has escalated to something between Rs. 15,000 and Rs. 20,000, that not only is this unaffordable by the EWS and not cost effective, it poses serious problems of maintenance to public agencies.

3. It was noted that the scheme for environmental improvement of slums has a provision of Rs. 151 crores in the Sixth Plan period and aims at covering a population of 10 million out of a projected population of 33.1 million by 1985. The improvements envisaged are water supply, sewerage, storm water drains, community baths and latrines, widening and paving of lanes and street lighting. In the first three years of the Plan approximately Rs. 80, crores have been spent and a slum population of roughly 4 million are said to have been 'covered'.

4. The Ministry of Works & Housing have identified the following problems in the implementation of this project:—

- (i) Absence of a long-term approach to the problem supported by adequate funds.
- (ii) Lack of adequate administrative arrangements at State|Local level.
- (iii) Inadequate budgets.
- (iv) Absence of city-wise data and projects.
- (v) Legal problems in taking up slum improvement in private slums.
- (vi) Problem of maintaining improvements that have been carried out.
- (vii) Problem of coordination with concerned agencies like water supply, electricity, etc.

5. The Task Force additionally noted the following difficulties in the current slum improvement programme:—

- (i) The environmental improvement programme is regarded as a purely temporary solution and assumes that the beneficiaries will not remain permanently on the site.
- (ii) There has not been a proper evaluation of this scheme to assess the extent to which it has achieved its objectives so far.
- (iii) The per capita investment norm and the suggested scale of amenities are found to be unrealistic. At current prices, it is quite clear that within the cost ceilings (a) the prescribed amenities cannot be provided; (b) that where provided they would fall short of the scale laid down (which in itself is considered inadequate); (c) that considering the variety of slum conditions, locational peculiarities and individual infrastructure deficiencies, the norms are often irrelevant.
- (iv) Slum improvement or squatter upgrading in today's context has necessarily to be projectized. Each area needs to be carefully surveyed, socio-economic data

concerning the residents gathered and estimates of physical improvements prepared. The work has then to be entrusted to a competent agency. There is no evidence that in the current programme such an approach is being followed.

- (v) There is no information as to whether efforts are being made to link improvement schemes with security of tenure and assistance in house construction. There is also no information of any social facilities and employment programmes being linked to slum improvement.
- (vi) There is also no evidence of slum dwellers' involvement in the environmental improvement programme. Available evidence would indicate that the scheme is being implemented mainly as a public works programme.
- (vii) Although this is basically a local government responsibility, there appears to be little financial participation by local bodies.
- (viii) The conclusion reached is that the reported 'coverage' of slum population under this scheme is largely on the basis of "expenditure incurred" rather than amenities fully provided.

6. The Task Force further noted that certain squatter upgrading projects in the country are reported to have yielded better results. These are the ones in Madras, Hyderabad and Vishakapatnam among others. Some salient features noted in these projects are : (a) careful preparation of projects and estimates; (b) considerable involvement of people in the preparation and implementation of the project; (c) firm linkage with security of tenure and house improvement loans; (d) higher costs of providing amenities; (e) a certain amount of cost recovery; (f) attempts at integrated programmes involving pre-schools, nutrition, health, employment and connected activities; (g) clear and specific responsibilities of various agencies and full-time community organizers; (h) an approach which attempts to integrate the residents of slum/squatter settlement into the general urban fabric.

7. The Task Force further noted that there are few takers for HUDCO's slum improvement scheme which envisages an expenditure of Rs. 2000/- per family, 50 per cent of which is provided by HUDCO at 5 per cent interest. The scheme provides for cost recovery and security of tenure as pre-conditions. The last appears to be a problem with prospective applicants for assistance under this scheme.

8. The Task Force also noted that State Governments continue to face legal difficulties in providing amenities to squatters on Government of India lands and private lands.

III. SLUMS, SQUATTERS AND THE LAW

9. The Task Force noted that from time to time in recent years legal impediments have been recognized as factors inhibiting the poor from improving their housing. These include zoning regulations, standards of services, minimum plot sizes, maximum densities, building byelaws, construction standards and so on. Although relaxation of standards to suit the circumstances of the weaker sections has been often recommended, it is seen that progress has been slow. It is also noted that the National Building Code, IS 8888, which attempts to incorporate standards appropriate to the poor in our country does not go far enough, but is a step in the right direction. Even so it has not been adopted as yet by many States and cities. In the absence of this essential and urgent reform, even minimum housing continues to be beyond the reach of the majority of the urban poor. Consequently a good proportion of popular housing also continues to be technically illegal.

10. The Delhi Slum Areas (Improvement and Clearance) Act of 1956 was the first attempt to provide a legal framework to slum improvement and clearance efforts. This was subsequently followed by almost identical legislation in 11 States. The main provisions in this legislation pertain to declaring an area as a slum, calling upon the owner of the land/building to carry out specified improvement works, undertaking of such work by the competent authority and acquisition of land for purpose of carrying out improvements. Compensation for such acquisition of land is also prescribed in the law as a multiple of the net average monthly income actually derived from such land during the previous five years.

11. The Task Force noted that the Slum Areas Act is primarily concerned with the provision of a sanitary environment. Originally it was formulated to allow clearance and redevelopment or improvement of services in and structural quality of overcrowded and dilapidated buildings. By subsequent amendments it encompassed hutments also but without adequate provisions to overcome the problems imposed by the unauthorized nature of their development. The Act defines a slum area on the basis of the inadequacy of shelter in terms of its structural quality, hygienic condition and availability of services. It does not address itself to the question of illegality of hutment slums and is therefore beset with severe difficulties in achieving even its limited objective of creating a sanitary environment. The Act does not concern itself with the security of tenure to hutment (slum) dwellers except to the extent that they cannot be evicted without the sanction of the competent authority.

12. This legislation read along with the Town Planning legislation in the various States and the Master Plans/Zonal Plans/Development Plans notified thereunder would, therefore, pose problems to any programme of improving housing conditions of the urban poor. The main act does not enable creation of conditions which would result in long term improvement of slum housing. Land use plans, particularly in respect of public lands, perennially conflict with objectives and/or consequences of slum improvement and squatter upgrading. Most master plans and zonal plans fail to earmark areas for the poor and for potential migrants.

IV. URBAN LAND POLICY

13. The Task Force reviewed the main planks of urban land policy in India which have been : (a) Large scale land acquisition and development by Government/public agencies for the last 25 years; (b) Ceiling on land ownership in the major urban centres since 1976.

14. In so far as housing for the urban poor is concerned, these policies have resulted in the following :—

- (i) The record of public agencies in land assembly, development and disposal has been very uneven. Some have acquired large extents of the urbanizable land in their jurisdictions; in most cases acquisition has been tardy. Efficient assembly, development and marketing of land for housing has been the exception. Many of the Housing Boards are involved in prolonged litigation, have been slow to bring the land to the market and have generally failed to achieve the objectives of public intervention. With the coming into operation of a ceiling on ownership since 1976, private developers' activities have been generally curtailed and large areas of vacant land stand frozen.
- (ii) Although the intention of large scale land acquisition and development was to combat private land developers' activities, undesirable speculation and ensure planned development with special reference to the needs of the lower income groups, the freezing of large tracts of land and slow development and marketing of land by public agencies had the opposite effect on the poor. The type of

schemes taken up by public agencies, whether group housing or plotted development, catered mostly to the higher income groups. Even the so-called EWS, Janta and LIG houses were priced way beyond the means of the poor.

- (iii) The Urban Land Ceiling Act of 1976 was designed to achieve a more equitable distribution of land to subserve the common good. Exempted lands as well as surplus land would be used for housing the poor. Unfortunately, the Act has run into a lot of difficulties. Out of 3.50 lakh hectares of land declared surplus, hardly 5000 hectares have been taken over. The number of housing units constructed on surplus land is insignificant.
- (iv) Delhi is an interesting case study of urban land policy. Out of 72,000 acres earmarked for acquisition in the Master Plan of 1961—1981, 70,000 acres were notified for acquisition. 45,469 acres were acquired till the end of February 1983. 13,900 acres have been utilised for the residential schemes of the DDA. 7,180 acres have been utilised to resettle squatters of the city in the late Seventies. 11,170 acres have been utilised for industrial, commercial and institutional purposes. 7,110 acres have been developed as parks, forests and other recreational purposes. 2,290 acres are reported to be under unauthorised use and 3,819 acres are reported to be vacant. The average cost of land acquisition for the DDA has been between Rs. 5 and Rs. 10 per sq. yard. The cost of raw land being charged to housing allottees on a gross area basis is Rs. 62 per sq. metre. The pre-determined rate for residential land which is the cost of land plus the cost of development, ranges from Rs. 260 per sq. metre to Rs. 418 per sq. metre, currently. At the same time, the DDA has auctioned small parcels of land from time to time for commercial purposes and the auction rates in 1981 and 1982 have been as high as Rs. 5,000 to Rs. 6,000 per sq. metre in some cases. The cheapest house which the DDA now produces is priced at approximately Rs. 30,000. A very careful evaluation will have to be done of Delhi experience in large scale land acquisition and disposal as an instrument of planned urban growth with particular reference to the needs of the urban poor before we can reach any definite conclusions.

V. INSTITUTIONAL CHANGES

15. The Task Force noted with concern that in spite of policy commitments to self help housing by the poor and encouragement of private initiative as well as some striking examples of successful low cost self help housing in recent years, Government sponsored house construction agencies continue to proliferate. These agencies, almost universally, are patterned on the bureaucratic model and adopt a rigid brick and mortar approach to housing. While some amount of urban housing may have to be built by specialised agencies in the public, private and cooperative sectors, there is overwhelming evidence to show that efforts to produce affordable housing for the poor by corporate bodies have failed. The evidence points to the fact that the bulk of housing of the poor is produced through their own efforts, legally or illegally. If public intervention in this field is to be effective it will have to take into account the woeful limitations of Governmental organisations' abilities to cater to the needs of low income families in terms of costs, quality, functional adequacy, location and cumbersome processes.

16. A radical change in the orientation of public housing agencies is called for if they are to serve the needs of low income people better. Housing is considered by many as an entry point into a comprehensive programme for developing people. While it may be too much to expect Housing Boards to become vehicles of social development overnight, a happy via media could

be achieved if housing is regarded by these organisations as a component of an integrated programme of services which must include health, education, recreation and sports, mother and child care and support for income earning activities. This is well within the realm of possibility and some inspiration can be drawn from the Slum Clearance Board in Madras and the Municipal Corporation in Hyderabad.

17. The Task Force feels that people's involvement in housing programmes meant for them is much more than a philosophical stance; it is of critical material relevance. The bulk of low income housing on our towns and cities continues to be built by people themselves. No slum improvement is possible without the full cooperation of the residents. Serious problems of maintenance of low income areas can be tackled if people are organised and involved. Hence the urgent need for reorientation of agencies involved in low-income housing and slum improvement.

18. This approach endorses the present efforts to introduce Urban Community Development projects. The Task Force noted with great satisfaction that the Ministry of Works and Housing in collaboration with the UNICEF, is supporting such schemes in six cities. The projects provide for community organisers in the employ of public agencies and local bodies to work closely with people in low income areas to organise them for programmes of housing, health, education, sports and mother and child care. The Task Force feels that catalysts or facilitators like the UCD organisers at the slum level can be used to try out a variety of joint action efforts in housing and related fields. This would include land development, house constructions materials banks, maintenance systems and so on.

VI. FUNDING SHELTER FOR THE POOR

19. The Task Force noted that lower income groups have practically no access to institutional finance for housing. Indirect funding is available for the EWS and LIG categories through HUDCO. This funding has certain limitations. HUDCO loans are made available only to housing agencies. These agencies construct the houses. The houses are then allotted to eligible applicants who come within the income limits prescribed. The other sources of institutional finance are the nationalised banks. Concessional interest is available only to members of the Scheduled Castes and Tribes. The project has to be prepared and sponsored by some public agency if it is to be acceptable to the banks. In view of these limitations the off-take of bank finance for housing for the lower income groups has been insignificant. The other source of finance is the Life Insurance Corporation. This money is channelised through the State Governments or apex housing societies to the primary Societies. Members of low income and economically weaker sections have to organise themselves into cooperatives and apply for assistance to the Apex Society. The funds are extremely limited. Very few such societies have come up. The result is that by and large the urban poor depend mainly on their own resources and what can be borrowed in the private market. A recent study of housing in Surat (Gujarat) and Villupuram (Tamil Nadu) by the National Institute of Public Finance and Policy, New Delhi showed that all income groups depend heavily on private borrowings and loans raised against jewellery and such assets.

20. The Task Force strongly felt that major initiatives will be needed on the part of the Central and State Governments in order to mobilise more funds for the housing programme for all income groups and make it easier for people to raise long term loans for house construction through a variety of institutional options. In this connection the Task Force was happy to note that the Ministry of Works & Housing has entrusted a major study to the National Institute of Public Finance & Policy on housing finance in India which may lead to some impor-

tant recommendations. Meanwhile the Task Force sees an urgent need for institutional arrangements for small home improvement loans to the urban poor through innovative methods of appraisal and disbursal.

21. It is also noted that the urban poor have great need for small amounts of money to repair, re-develop or augment their homes. There is no institutional arrangement for such loans. This is a lacuna that needs to be bridged as soon as possible. For innovative banking in this field to cater to low income groups it will be necessary to devise community based systems.

22. The Task Force also noted the successful functioning of building materials banks in some other countries and felt that this type of arrangement can be introduced in India also. Basically it is an effort to make available new as well as second hand material which is widely used by the urban poor for shelter at cheap rates. This can be done through an appropriate organisation like a cooperative which will work on minimum margins.

VII. A ROLE OF HOUSING COOPERATIVES

23. The Task Force took stock of the role of cooperatives in the housing sector and came to the conclusion that this organisational form can play a much larger role in housing for the urban poor. It was noticed that most of the housing cooperatives are for middle and higher income groups and these cooperatives have taken full advantage of facilities and concessions made available by public agencies, particularly in the matter of land, infrastructure and building materials. There are very few examples of cooperatives of the economically weaker sections. In Delhi, there are practically no housing cooperatives of the lower income groups. Both from the point of view of better efficiency in the construction of houses and equity in the distribution of benefits, societies of low income people deserve to be encouraged. This becomes particularly important in the context of land shortage, urban land ceiling restrictions and failure of public agencies to keep up with the demand for houses. It also assumes importance in the context of increasing criticism of the quality of public housing. This organisational form is also better suited to tackle a number of problems faced by prospective house-owners like long-term finance, construction management, security for loans, provision of services and maintenance of common services/areas.

B. RECOMMENDATIONS

I. SOCIAL HOUSING SCHEMES

24. The Task Force recommends that the budgetary allocations in the Plan should be used by the State Governments exclusively for schemes of land development and provision of infrastructure to facilitate construction of houses by individuals, groups of individuals and appropriate organisations. The Government should regard itself as a facilitator of housing activity rather than a builder of houses.

25. While developing land with infrastructure public agencies should concentrate largely on Sites and Services for the urban poor which would provide a site with basic services to a low income person at a price affordable to him.

26. While designing shelter programmes for the poor, public agencies must give overriding priority to water, sanitation and garbage collection in low income areas. It is realized that in Indian conditions the problem is primarily one of a healthy environment and basic services and only secondarily that of formal housing.

27. The Task Force recommends that the limited public funds available for construction of houses would be best utilized through the agency of HUDCO, apart from money channelized to cooperatives and earmarked by the banking system for housing. Apart from this there would be calls on public funds for the support of institutions engaged in mobilizing savings for housing and lending to the general public.

28. One of the serious gaps identified by the Task Force in the efforts to house the poor is the complete absence of facilities for small loans for construction of houses or for repair/renovation/expansion to low income people. The Task Force recommends that innovative and unconventional arrangements would be needed within the general framework of the national banking system to fill this void. The Task Force recommends that the current study commissioned by the Ministry of Works and Housing through the National Institute of Public Finance and Policy should specifically cover these issue of providing affordable finance for shelter in small amounts to the urban poor.

29. These arrangements would include schemes for "materials banks" through which loans could be in kind. Such banks could deal with items like bricks, tiles, sheets, cement, steel, prefabricated components and even discards and surplus materials from industries. Such banks should preferably be in the cooperative/private/voluntary sector since success would depend entirely on efficient turnover, price advantages in wholesale procurement and thin margins in sales.

30. Among the factors in public housing schemes identified by the Task Force as contributing indirectly to inhibiting efforts of the poor to house themselves in the slow pace of land acquisition and disposal and the regressive land pricing policies of some public agencies. The Task Force would therefore urge on public agencies involved in land development the need for rapid release of land in the market and progressive pricing policies, including systems of cross subsidy, which will make land available at reasonable prices.

31. The Task Force strongly recommends that the Ministry of Works and Housing should build up a system to monitor much more effectively the whole housing sector in the country but particularly from the point of view of who benefits from public investments.

II. SLUM IMPROVEMENT

32. The Task Force recognizes slums/squatter settlements as the products of poverty and social injustice. The Task Force would, therefore, recommend against 'slum clearance' as a solution to the problem. The Task Force considers the construction of tenements by public agencies for slum dwellers a misapplication of scarce financial resources. It would, therefore, urge the Government to adopt more cost effective and viable solutions to the problem of slums/squatter settlements.

33. While commending the present approach of environmental improvement of slums in the urban areas the Task Force would recommend that the following features be closely integrated in the programme:—

- (a) Realistic financial norms for the services to be provided with provision for revision of costs periodically.
- (b) Careful preparation of individual projects and estimates.
- (c) Clear and specific responsibility of various agencies involved.

- (d) Full involvement of the local body in the project.
- (e) Firm linkage of the improvement programme with security of tenure and house improvement loans.
- (f) A certain amount of cost recovery.
- (g) An attempt to integrate the physical improvement programme with schemes for pre-schools, nutrition, health, employment and connected activities.
- (h) Full involvement of people in the project through urban community development projects, voluntary agencies and full time community organisers employed by the agencies concerned.
- (i) Workable arrangements for maintenance of assets and services.
- (j) Proper monitoring of the whole project on the basis of services actually provided and functioning and achievement of the objectives mentioned above.

34. The Task Force noted with concern that most of the improvement work so far has taken place in slums on Government land and would urge that the problem of squatters on private land should be tackled on a priority basis.

35. The imperative need to treat some of the metropolitan cities as 'national cities' has been advocated time and again and will, no doubt, be re-emphasized by the relevant Task Force of the Planning Commission. However, from the point of view of slum improvement and housing for the poor, it must be noted that these problems arise precisely for the reason that cities are not able to cope with the burden of certain economic functions that can be justifiably described as 'national'. The Task Force would, therefore, recommend special Central assistance by way of loan and grant to the metropolitan cities to finance infrastructure and services generally and shelter and services to the poor particularly.

36. The Task Force has identified the absence of water supply, disposal of human waste and garbage collection as the three most important factors that endanger the health and well being of people living in slums and at the same time responsible for the increasing public resentment of slum conditions. It would, therefore, strongly urge the implementation of schemes to supply more water to slum areas and a massive programme of pour flush latrines where water borne sewerage is not feasible/affordable in the near future. It would also urge increased measures to collect garbage and service public latrines in the poorer areas of our cities.

37. The Task Force noted with great concern that in spite of policy objectives to improve the conditions of squatters on public land, the Ministries/Departments of the Government of India have failed to take a realistic view of the matter in respect of Central Government Lands squatted upon. A policy decision to permit the State Governments to carry out improvement works for squatters on Government of India lands has been taken in 1978. However, a number of Ministries/Departments have not yet permitted the local agencies to carry out improvements. Very few Ministries/Departments of the Government of India have relinquished their rights over lands which have been under occupation of squatters for many years so that the State Governments can deal with the problem on a permanent basis. The Task Force would urge the Ministries/Departments of the Government of India to take up this matter with a sense of urgency and deal with it in a pragmatic manner.

38. By way of advance action for feasible and viable slum improvement projects, the Task Force would recommend that the State Governments should conduct comprehensive surveys in all cities with a population of over 1 lakh people (to begin with) as per the 1981 census and prepare detailed slum improvement master plans for these cities.

39. If comprehensive slum improvement is to be achieved with the provision of basic amenities over the next 15 years, it is necessary to step up the allocation for slum improvement substantially. The Task Force estimates that a minimum of about Rs. 750 crores should be allocated for this purpose in the Seventh Five Year Plan.

III. URBAN COMMUNITY DEVELOPMENT PROJECTS

40. The Task Force would like to again emphasize the importance of peoples' involvement in shelter projects among the low income groups. Full-time community organisers and voluntary agencies have an important role to play here. However, the best results can only be achieved by the right orientation in the organisations concerned, harmonious rapport between these organisations and the clientele and a broad based approach that regards housing as only one component of a programme for the integrated development of the target community. All this is extremely difficult work. The Task Force strongly recommends the initiation of urban community development projects in all areas where public agencies are to take up slum improvement or housing projects. The Hyderabad model is recommended as a guide. The expenditure on such projects is only a fraction of the massive investments which most public agencies incur on urban development and housing programmes. External financial assistance is therefore not a critical factor, but rather the acceptance of the concept and the approach. The Task Force recommends that local bodies and voluntary agencies should be fully involved in urban community development projects.

IV. COOPERATIVES

41. For reasons stated in the findings, the Task Force strongly recommends that low income people should be encouraged to form cooperatives in order to meet their shelter requirements. The principles underlying the cooperative movement and the experience of democratic and self-reliant functioning have much to commend themselves. However, a positive effort would be needed on the part of the concerned Government Departments to bring about such cooperatives, to give them the assistance they need and to guide their functioning. Such cooperatives are playing an increasingly significant role in metropolitan areas where multi-storeyed housing has become necessary due to scarcity of land.

V. SLUMS AND THE LAW

42. The Task Force recommends a full scale review of slum legislation in the country by the Ministry of Works and Housing. This review should be primarily aimed at reorientation of the legislation in line with Government's current policy and objectives. The review should specifically address itself to strengthening the legislation to facilitate improvement programmes in squatter settlements, upgradation of slums in built up areas, speedier acquisition of private lands under slums and grant of tenure to residents of improved slums.

43. The Task Force would urge State Governments to make more vigorous use of the existing legislation on slums, particularly in the matter of acquisition of private land under slums on payment of a multiple of the actual rent.

44. The Task Force attaches the greatest importance to security of tenure in shelter programmes for the poor, be they serviced sites, improved slums or formal housing and would urge all concerned agencies to treat this as an integral and indispensable part of such programmes.

45. The Task Force recognizes the progress made in recent years to modify legal standards in order to make legal shelter more affordable to the poor. However, the Task Force feels that much more can be done. While commending the relevant chapter of the National Building Code as a general guide, the Task Force would urge State Governments/City managements to conduct a realistic review of master plan standards, land use plans and regulations, building bye-laws, infrastructure standards and service standards in order to determine the minimum norms which are compatible with both health and safety as well as the means of the poor. While conducting such a review, city managements may consider exempting whole areas where the poor live from the operation of specific legal measures which may be found to be impractical.

VI. URBAN LAND POLICY

46. The Task Force is aware that substantive recommendations on urban land policy have emerged from the Task Force on "Planning of Urban Development".

47. However, the Task Force is keenly conscious of the nexus between land policy and access of the poor to adequate shelter. This Task Force would, therefore, like to draw attention of the Government to the failure of some of our urban land policies in the past decade resulting in a serious dichotomy between stated objectives of policy and actual achievements. This has affected all classes of people adversely, but particularly the poor who have been driven to illegal squatting, squeezed into crowded conditions or forced to reside long distances from their work spots. The Task Force would, therefore, recommend that in the current review of rent control, urban land ceiling and land acquisition for urban development, the real impact on the lower income groups should be carefully considered.

VII. INSTITUTIONAL MATTERS

48. The Task Force considers a drastic change in the orientation of all public agencies like Housing Boards engaged in shelter an essential pre-requisite to expanding the scope of housing programmes for the poor. The brick and mortar approach is totally unsuited to the problem of masses of shelterless poor, primarily because the procedures and systems entrenched in these organisations coupled with short sighted pricing policies for land cannot, in the best of circumstances, produce houses affordable and suited to low income people. These organisations should concentrate on development of land and infrastructure as recommended in the section dealing with social housing. They should cut down their house construction programmes to the minimum. They should treat housing as a part of an integrated programme for urban development and staff their organisations appropriately to deal with communities of people for whom they aim to develop planned human settlements. The Task Force notes with the greatest concern that so-called planning and development authorities in many cities have quickly deteriorated into house builders, sacrificing partially or wholly their legitimate functions as planners, regulators of development and promoters of critical infrastructure. These are the functions which would shift the focus of public agencies to areas of greatest need like slums and squatter settlements.

49. This reorientation of public agencies can be assisted by inducing the participation of non-governmental agencies in the provision of shelter programmes for the poor. In organising the poor for self-help, be that for construction of low cost houses or delivery of basic environ-

mental or social services, the non-governmental voluntary agencies, either non-profit, professional organisations or small community groups, should be encouraged to play a specific role. Many such agencies and groups with required orientation and skills are in existence today and many such groups are coming up rapidly in big cities. They are capable of playing multiple roles: starting from designing and implementing multi-sectoral projects to managing material banks, to running a small dispensary in an improved slum locality.

50. The provision of affordable finance for shelter in small amounts to the poor has been recommended earlier. The Task Force recommends that organisational arrangements be worked out for encouraging the entry of housing finance agencies like the Housing Development & Finance Corporation into the housing market of the urban poor. This is necessary to augment the efforts for providing funds for housing for the poor which are currently predominantly channelled through formal institutional channels. It is necessary for decentralised institutions to emerge which can deal directly with individuals in providing them with relatively small amounts for house improvements as well as housing construction.

I. REVIEW OF EXISTING POLICIES AND PROGRAMMES AFFECTING SHELTER FOR THE URBAN POOR

Introduction

1.1 One of the earliest efforts in the matter of public housing was the social housing scheme introduced in the First Plan. Starting from 1952, schemes for integrated subsidised housing for Economically Weaker Sections, schemes for Lower Income Groups, Plantation workers, village housing and so on were introduced in the Central sector. Over a period of time all these schemes, excepting the one for plantation workers, have been transferred to the State sector.

1.2 The integrated subsidised housing scheme for industrial workers and Economically Weaker Sections was introduced in 1952 and the upper income limit for eligibility was Rs. 500 per month. The pattern was broadly 50 per cent loan and 50 per cent subsidy. The scheme was meant to provide open developed plots or two-roomed houses. The implementing agencies were State Government, Housing Boards, local bodies, cooperative societies and industrial employers. In the late 70's it was decided to transfer the houses to the occupiers on hire-purchase basis. Up to that time it is estimated that roughly Rs. 125 crores were spent on this programme, most of it for industrial workers, and approximately 2.50 lakh houses were constructed.

1.3 The low income group housing scheme was introduced in 1954. It provided for grant of loan up to Rs. 18,000. The implementing agencies were Governmental and semi-Governmental organisations and cooperatives. Up to the middle of 1981 it was roughly estimated that Rs. 234 crores had been spent and about 4 lakh houses constructed.

1.4 The plantation workers scheme is in pursuance of plantation law which makes it obligatory for planters to provide and maintain housing for their workers. The scheme was introduced in 1956. There is a pattern of loan and subsidy for construction of two-roomed tenements. The present cost ceiling is Rs. 5,000. Roughly 40,000 houses have been constructed under this scheme so far.

1.5 The village housing project was introduced in 1957 and provided for loan to individuals and cooperatives up to a maximum of Rs. 5,000 per house. In the middle of 1981 it was estimated that roughly Rs. 26 crores had been spent by State Governments for the construction of approximately 100,000 houses.

1.6 Similarly, the middle income housing scheme was introduced in 1959. This also provided for loan to individuals or cooperatives up to a maximum of Rs. 33,000 with a ceiling cost of Rs. 42,000. Loans were to be given to individuals or to various Government or semi-Government agencies. Upto the middle of 1981 it was estimated that Rs. 121 crores had been spent and approximately 50,000 houses were constructed.

1.7 By 1974 all these schemes, except the one for plantation workers, had been transferred to the State Governments. The State Governments have been receiving plan assistance by way of block grants and block loans for all State sector schemes without the assistance being tied to any particular head of development. The State Governments are free to utilise

Central assistance for any development sector according to their own requirements and priorities. The monitoring of these schemes by the Ministry of Works and Housing and the Planning Commission slackened since the time they were transferred to the State sector. Various State Governments introduced new schemes and variations of the old schemes with a variety of ceiling costs, patterns of assistance and criteria for selecting beneficiaries. Finally in July 1982, the Works and Housing Ministry simplified the monitoring of the housing programmes of the State Governments by soliciting only information categorywise for the three income groups, viz., EWS, LIG and MIG. Due to the variety of patterns followed by the State Governments and different modes of financing various housing agencies even this information as to the number of houses constructed under the three income classifications is not being received.

1.8 It is quite clear that the earlier so-called social housing schemes introduced by the Government of India and implemented by the State Governments were mainly directed towards construction of formal housing by Governmental, semi-Governmental agencies and co-operatives. Amounts provided were meagre and the total number of houses constructed over a period of 30 years is just a miniscule of the country's total effort during the period and a fraction of the requirement. It is also quite clear that even if additional effort had been made and additional allocations approved, the production of housing would have little impact on the total market. It must also be said in retrospect that this was not the best way to apply the limited resources available for housing. Even presently the meagre housing budgets of the State Governments and the Housing Boards are being utilized mainly for this type of urban housing for the middle and low income groups. The money would have gone much further if it had been spent on land development and basic services.

Slum Clearance and Slum Improvement

1.9 The slum clearance scheme was introduced in 1956. This scheme envisaged re-housing of slum families in tenements and also improvement of slum areas. The construction was to be done by Slum Clearance Boards and Housing Boards and the slum dwellers were to be charged nominal rents for the houses. One of the largest programmes was taken up in Madras where approximately 40,000 units were constructed in multi-storied building. Most of the re-housing was done in situ. The costs which were initially in the region of Rs. 3,000 to Rs. 4,000 per unit have finally escalated to approximately Rs. 17,000 at present. The original pattern of financing was 50 per cent loan and 37½ per cent subsidy from the Central Government. The State Governments were to provide the balance. Since the inception of the scheme up to 1969 only Rs. 52 crores were allocated out of which only Rs. 34 crores were actually drawn by the State Governments. From the beginning of the Fourth Plan the scheme was transferred to the State sector. Laterly, HUDCO finance was made available for this type of housing of slum dwellers.

1.10 The scheme for environmental improvement of slums was formulated as a result of the recognition that the policy of clearance and rehabilitation of slum dwellers had not been successful in the face of growing problems. This scheme was first introduced in the Central sector in April, 1972 and was confined to 20 cities. The amenities to be provided under the scheme were water supply, sewerage, storm water drains, community baths and latrines, widening and paving of lanes and street lights. The per capita cost was fixed at Rs. 120 and raised to Rs. 150 in 1978. Since 1974 the scheme is being operated in the State sector. During the Fifth Plan, the scheme was extended to all cities with a population of 3 lakhs and above. As per the Sixth Plan document, the estimate of the slum population by 1985 is 33.1 million. It was calculated that approximately 6.8 million people had been covered under improvement schemes upto 1979-80. The balance slum population requiring attention was said to be 26.3 million. The Sixth Plan aims at covering 10 million people upto March 1985

and tackling the balance in the next Plan. In the first three years of the Plan approximately Rs. 80 crores have been spent by the State Governments and about 4 million people are said to have been covered by the improvements. There is an outlay of Rs. 151 crores in the Sixth Plan.

1.11 More systematic improvement work in slums is being carried out in the IDA assisted projects in Madras, Calcutta and Kanpur. The type of improvements are more or less the same as those under the Plan scheme. However, the projects are better prepared, implementation is better supervised and the monitoring is of a higher order. In Madras and Kanpur title of the land is also being passed on to the slum dweller. Loans are also being given for home improvement. Additional social amenities like pre-school, creches, community halls are being provided in the World Bank projects. There is conscious effort to link employment with slum improvement in these schemes. Workshops are being provided, wherever possible. In Madras approximately 75,000 households have benefited from the projects. In Kanpur 20,000 families will benefit from the work that is in progress. In Calcutta 1.1 million people have been covered so far.

1.12 It is obvious that the slum tenements programme was doomed to come to a halt sooner or later. With rising costs, poor quality of construction, high costs of maintenance, most State Governments have given up the scheme. Tamil Nadu Government is still constructing some tenements, but with the present unit cost being approximately Rs. 17,000 they are finding it extremely difficult. It is also realised that with limited resources, a much larger number of people can be benefited by slum improvement. The cost of slum improvement in the World Bank projects comes to approximately Rs. 400 per capita. Much of this is recoverable from the beneficiaries. The problems that have been identified in the implementation of this scheme are as follows:—

- (i) Absence of long-term approach to the problem, supported by adequate funds.
- (ii) Lack of adequate administrative arrangements at State/local level.
- (iii) Inadequate budgets.
- (iv) Absence of city-wise data and projects.
- (v) Legal problems in taking up slum improvement in private slums.
- (vi) Problem of maintaining improvements that have been carried out.
- (vii) Problem of coordination with concerned agencies like water supply, electricity, etc.

1.13 It will be seen that the data base for slum population in India is quite weak. The earlier environmental improvement programme was not properly monitored and followed up. Due to poor maintenance some of the assets created have deteriorated and services are not operational. The outlay envisaged in the Sixth Plan is quite inadequate. The work done under the World Bank projects and also some specific schemes like the Hyderabad Urban Community Development project have definitely yielded better results. The concept of linking improvement with security of tenure and assistance in construction of houses has, by and large, succeeded quite well. The problem, therefore, is one of financial resources, better project preparation and implementation, peoples participation, better monitoring, linking improvement with security of tenure and special funding arrangements for home improvement loans. In the IDA assisted projects home improvement loans are given through the implementing agencies. At some places arrangements have been made for such assistance through nationalised banks. In

Hyderabad there is a combination of bank finance and HUDCO loans. There are a variety of possibilities which will have to be explored. But it is important that these programmes are taken up on a large enough scale in order to make an impact. The other related problem is one of maintenance. While the environmental improvement scheme does not envisage cost recovery, this has been provided for in the IDA assisted projects. It is important that at least a portion of the improvement cost is collected from the beneficiaries. This is more feasible when it is linked with security of tenure. Cost of maintaining services has to be necessarily collected from the residents. Either this has to come from property tax, service charges or special levies.

City Improvement Trusts, Housing Boards and Large-Scale Land Acquisition

1.14 When the rate of urbanisation was slow and Indian cities were manageable, a number of city improvement trusts came up in the early 30's. These trusts basically catered for middle income type of housing. Lands were purchased at market prices and plotted development was taken up. The trusts also resorted to land re-adjustment methods for achieving proper lay out and financing the scheme. There was an elaborate system of betterment levies by which the municipal bodies collected the development cess as well as a portion of the incremental value of the land over a period of time. In the circumstances then prevailing, these trusts were an adequate response to the demand for planned urban growth and housing. From time to time, there was a certain amount of litigation and in later years, due to escalating costs, the scheme of betterment levy ran into various difficulties. There is not much evidence to show how far the lower income groups benefited from the housing schemes of these trusts. It may, however, be noted that the problem of land acquisition was tackled quite successfully and that house construction was left to the individuals.

1.15 In the early 60's State Housing Boards superseded the improvement trusts. These were statutory bodies set up by primarily to promote housing. They resorted to acquisition of land on the periphery of existing housing developments. This acquisition was done under the Land Acquisition Act of 1894. Initially they followed the pattern of the trusts and went in for plotted development, leaving house construction to individuals. There was a reasonable mix of large and small plots and the lower income groups were also catered to. Even in the 60's, urbanisation and migration to the cities had not assumed such unmanageable proportions. Land prices were still under control and building costs were reasonable. There was no serious shortage of materials. The policies of these Housing Boards, by and large, were adequate to the circumstances then prevailing. No profit no loss prices were within the means of a large segment of the middle class. Land was developed quite rapidly and public agencies were able to compete with private agencies/private developers who were quite active in the market.

1.16 However, the record of the Housing Boards was extremely uneven. A number of them had problems in acquiring sufficient land. A large number of Housing Boards were set up in the early 70's. Some of them took considerable time to become operational. Most of them suffered from inadequate resources. From the late 60's Housing Boards took up direct construction of housing in a large way. One of the reasons was increasing scarcity of land and the need for multi-storeyed housing. The other reason was that with a more active economy, people were finding it difficult to construct houses themselves. This was also a period when some of the important materials were scarce and controlled items. While the quality of housing produced by public agencies in the early days was quite competitive, there was rapid deterioration with the increased scale of housing programmes. The increased scale was due to a number of factors, but mainly legislation like the Rent Control Act and the Urban Land Ceiling Act which pushed private developers out of the market and froze private construction to a

great extent. Thus, the public agencies acquired a monopolist position in the land market and had to assume the burden of satisfying practically the entire demand for additional housing in Indian cities. In spite of the availability of land, the expansion of construction capacity and other advantages available to public agencies, the output has been woefully short of the need. The quality of public housing, as is well-known, has touched an all time low. Although all housing boards claim a reasonable mix of housing for higher and lower income groups, costs are way beyond the means of most people earning less than Rs. 600. A critical review of the role of housing boards is needed.

Role of the Housing and Urban Development Corporation

1.17 The HUDCO was set up in 1971 in response to the need of housing agencies in the country for long-term finance. Hitherto the housing boards were depending entirely on Govt. loans and grants and to a certain extent on self-financing. This severely limited their operations and the Govt. of India decided to set up an apex housing finance institution to cater to the needs of housing agencies in the country. The Corporation lends only to housing agencies and not to individuals. It has a graded system of interest ranging from 5 per cent to 13.5 per cent and repayment periods ranging from 10 to 20 years. HUDCO finance is available only for projects which conform to cost ceilings and income categories prescribed by the Govt. Presently the cheapest house is around Rs. 5000 and the upper limit is Rs. 1.25 lakhs. Squatter upgrading is also financed to an extent of Rs. 2000 per family. 55 per cent of HUDCO's money is earmarked for low income groups and EWS. This has resulted in an annual output of which 85 per cent of the houses go to LIG/EWS. In absolute terms, the achievement of HUDCO has been formidable. It has helped to finance the construction of approximately 1.3 million houses during its 12 years of existence. However, the whole question of affordability is still being discussed since it is reported that quite a few HUDCO houses ultimately go to persons in the higher income groups. HUDCO is constantly evaluating its projects.

Role of Cooperatives

1.18 Although the cooperative movement in housing started in the early part of this century it gained momentum only after Independence. The number of primary societies increased from 5,564 in 1959-60 to 35,000 this year. The total membership increased from 3.22 lakhs to 22 lakhs. These societies are served by 19 Apex Organisations at the State level. By and large, housing cooperatives have been given preferential treatment by Governments and are eligible for a number of concessions. Most of these societies are formed by middle income group people but there are a few LIG societies also. The major source of finance for housing cooperatives is the Life Insurance Corporation. A sum of Rs. 500 crores has been released so far by the LIC for the benefit of housing cooperatives in the country. The HUDCO was also supposed to finance housing cooperatives but the money made available so far has been less than Rs. 2 crores. There is considerable scope for housing cooperatives in our country. This organisational form assumes special significance in a situation where urban land ceiling and other restrictions have constrained private development of housing stock. Additionally, public agencies involved in construction have failed to produce sufficient numbers to meet increasing demands. Public perception of the quality of housing constructed by some of the Governmental agencies is also bleak. The cooperative framework is also ideally suited for cutting costs, better utilization of land and proper arrangements for maintenance. A much bigger role for cooperative housing is possible. Cooperatives of EWS should be actively encouraged. Unfortunately, a variety of problems faced by cooperatives have not really been tackled in an organised manner. Govt./public authorities must pay greater attention to these

problems. They include long-term finance, construction management, bridging loans, proper titles to land, apartment ownership legislation, coordination in the provision of services and maintenance of common services/areas.

Plan Objectives and Stated Policy

1.19 The Fifth Plan document (1978—83) reviewed the housing shortage in the country, the investments made in the previous Plans, the strategy followed in the past and arrived at the following objectives :

- (a) Promotion and encouragement of self-help housing.
- (b) Provision of house sites and assistance for housing rural landless labourers.
- (c) Social housing schemes to cater to economically weaker section.
- (d) Augmentation of resources of HUDCO, State Housing Boards, etc. so that they can provide infrastructure for private housing.
- (e) Promotion of research in building technology and, development of low cost building material.

1.20 The estimated housing investment and performance in the first four Plans and targets for the Fifth Plan are given in the Annexure. The estimate of private sector investment in housing has always been rather unreliable. It must be noted that this accounts for the bulk of housing proposed to be developed in successive Plans. The figure ranges from Rs. 1000 crores to Rs. 3640 crores in the successive Plans. The Fifth Plan document admits that reliable data on investment in private housing is not available after 1974-75. The Fifth Plan also proposed a substantial step up in the programme of slum improvement and also laid emphasis on the development of small and medium towns.

1.21 The Sixth Plan document (1980—85) again summarised the investments in housing so far. Direct investment through the Plans in the last three decades totalled Rs. 1253 crores. Investments by other public agencies and institutions were calculated to have been Rs. 1800 crores. Investment by the private sector during the same period was estimated to be Rs. 12,740 crores. As we have seen, there is no reliable basis for the figure of private investment in housing. The Plan document also admits that it is difficult to compile adequate statistics on the number of housing units constructed. The Plan document envisages that during the Sixth Plan period the combined public and private sector outlay for housing would be Rs. 12900 crores, Rs. 3500 crores for rural housing and Rs. 9400 crores for urban housing. Such an outlay would yield about 13 million dwelling units in rural areas and 5.7 million units in urban areas. It admits that reliable data is not easily available, but based on estimated gross capital formation in residential buildings private sector investment has been calculated at Rs. 11500 crores. Public sector investment is envisaged to be Rs. 1302 crores. Public sector enterprises and other institutions would account for another Rs. 250-300 crores. As far as housing through the Plan is concerned, the document has calculated that at an average rate of Rs. 3000 per unit and a provision of Rs. 485 crores in the total Plan, the output should be 16.2 lakh units for the EWS. Apart from this, HUDCO would be investing Rs. 600 crores in the Sixth Plan period yielding 6.8 lakh dwelling units and 62,000 developed plots of which 86 per cent would benefit EWS and LIG. The general objectives outlined in the Sixth Plan document laid emphasis on housing in small and medium towns, low cost housing techniques, development of infrastructure to stimulate and support private housing and direct intervention solely for economically weaker sections. The Sixth Plan document notes that Life Insurance

Corporation has provided up to March 1977, Rs. 720 crores in the form of loans for various housing programmes.

1.22 It will be seen that in the Fifth Plan and Sixth Plan periods there was a distinct shift of stated Govt. policy in favour of providing basic infrastructure and encouraging private initiative so that the bulk of housing can be constructed by people. There is a clear recognition of the need for large sites and serviced schemes which will provide serviced sites to the urban poor on which they can construct their own houses. There is greater emphasis on environmental improvement of slums instead of massive re-location. Role of the public sector would be restricted to the improvement of slums, the direct provision of housing to some of the urban poor and encouragement of agencies such as HUDCO which can promote the marshalling of private resources into housing in a constructive manner.

1.23 Unfortunately, monitoring of housing objectives in the Fifth and Sixth Plans has been far from satisfactory. While it has been possible to gather information on physical targets achieved in respect of rural house sites and population covered under slum improvement, very little information is available on serviced sites and housing taken up for the LIG/EWS and completed. Several attempts made to analyse the annual budgets of particular State Governments in order to identify the funds that have gone to housing for the three income categories have not yielded results. No State Govt. has yet been able to give us full information in the new simplified format adopted in July, 1982. While the Plan documents have indicated certain proposed investments both in public and private sectors and the Plans themselves have earmarked certain allocations for public housing, there is practically no information available till now as to the application of these funds and production of housing units. As far as the "bulk of housing" which the private sector is to produce there is no monitoring whatsoever.

Land and Housing Policy in Delhi

1.24 No discussion on the subject of housing, whether for the higher income groups or the low income groups, would be complete without a brief review of housing in Delhi. The Master Plan for the city came into effect from 1st September 1962 and had a time frame of 20 years. The Delhi experiment in land development and housing is unique for the following reasons:—

- (i) It acquired, for several reasons, a monopoly position in the acquisition and ownership of land in Delhi.
- (ii) It turned out to be practically the only housing agency in the city of 6 million people.
- (iii) The programme proposed acquisition of practically all urbanisable land in Delhi for the DDA.
- (iv) The Authority combined in itself functions of planning, land use control, municipal functions, horticultural development, development of social facilities and city centres and house construction.

1.25 Delhi is an interesting case study of urban land policy. Out of 72,000 acres earmarked for acquisition in the Master Plan of 1961—1981, 70,000 acres were notified for acquisition, 45,459 acres were acquired till the end of February 1983. 13,900 acres have been utilised for the residential schemes of the DDA. 7,180 acres have been utilised to resettle squatters of the city in the late Seventies. 11,170 acres have been utilised for industrial, commercial

and institutional purposes, 7,110 acres have been developed as parks, forests and other recreational purposes. 2,290 acres are reported to be under unauthorised use and 3,819 acres are reported to be vacant. The average cost of land acquisition for the DDA has been between Rs. 5 and Rs. 10 per sq. yard. The cost of raw land being charged to housing allottees on a gross areas basis is Rs. 62 per sq. metre. The pre-determined rate for residential land which is the cost of land plus the cost of development, ranges from Rs. 260 per sq. metre to Rs. 418 per sq. metre, currently. At the same time, the DDA has auctioned small parcels of land from time to time for commercial purposes and the auction rates in 1981 and 1982 have been as high as Rs. 5,000 to Rs. 6,000 per sq. metre in some cases. The cheapest house which the DDA now produces is priced at approximately Rs. 30,000. A very careful evaluation will have to be done of Delhi experience in large scale land acquisition and disposal as an instrument of planned urban growth with particular reference to the needs of the urban poor before we can reach any definite conclusions.

Integrated Urban Development Programme (IUDP) and Integrated Development of Small and Medium Towns (IDSMT)

1.26 IUDP was introduced in the Fifth Plan period and was meant to support urban development projects of national importance by supplementing the efforts of the State Governments. Initially it was supposed to cover the cities of Delhi, Bombay, Calcutta and Madras. But later it was extended to cover all towns with a population of three lakhs and above and all capital towns of States irrespective of their size. The assistance was towards seed capital for purpose of land acquisition, development and disposal, for urban renewal and redevelopment projects and for provision of urban infrastructure including civic services in critical areas. The State Governments were to prepare integrated plans based on long-term Master Plans. The State Governments were to introduce suitable Town Planning legislation and set up development authorities for implementation of the programme. The State Governments were to adopt rational urban and housing policies and give particular attention to weaker sections. They were to accept and adopt a policy of dispersal of industries and other economic activities from the metropolitan areas to small growth centres. The assistance was available as loan from Central Government at an interest of 5½ per cent to be repaid in 25 years with a moratorium of 5 years. When it was found that most of the money was going for land acquisition and development, revised guidelines were issued in August 1978 envisaging the need for taking up schemes of water supply, sewerage, traffic and transportation, slum improvement, parks and playgrounds and health facilities. The need for appropriate urban land policy was also emphasised. About 32 towns were assisted between 1974-75 and 1978-79. A total of Rs. 136 crores was passed on by the Central Government to the States for a variety of schemes. The IUDP has never been evaluated. Only recently we have requested the Planning Commission to take up evaluation of this project. While there is no doubt that some of the State Governments were able to use the funds for implementing specific schemes of water supply, sewerage and land acquisition and development, it is difficult to identify specific impact on housing with particular reference to urban poor.

1.27 Since 1979 the Government have been implementing the scheme of Integrated Development of Small and Medium Towns. 200 towns with population of less than 1 lakh have been taken up for development. The scheme was to sub-serve development of the rural hinterland, to strengthen the facilities and services in these towns, so that they could become counter-magnets to the large metropolitan centres. The Central assistance was to be available for land development and housing, transportation and economic activities. Such services as water supply, sewerage, etc. were to be provided under the State sector. Emphasis was to be laid on sites and services projects. During four years of operation of the scheme projects for 200

towns have been approved by the Ministry of Works & Housing and about Rs. 34 crores has been released so far. The pace of progress has been slow and the following difficulties have been identified:—

- (a) inadequacies in the formulation of projects and failure to take fully into account the local situation and the views of local officers, and this led to modifications or abandonment of some schemes, change of site and delays in starting.
- (b) Organizational problems arising from overlapping responsibility for Town Planning, Urban Development and Municipalities at the State level, problems of coordination of different sector agencies at local level, delays in identifying agencies for execution of schemes.
- (c) Inadequate State budget provision and delays in passing funds to implementing Agencies.
- (d) Administrative delays in the approval of estimates and tenders, absence of adequate powers with local authorities to execute schemes, lack of technical staff at local levels.
- (e) Problems of execution such as delays in land acquisition, shortage of materials, coordination between sectoral agencies, change of site etc.
- (f) Absence of effective institutional arrangements for monitoring and coordination at State and Local level.

ANNEX 1.1

ESTIMATED HOUSING INVESTMENT AND PROGRESS

A. INVESTMENT

(Rs. crores)

Sl. No.	Scheme	First Plan	Second Plan	Third Plan	Three Annual Plans (1966-69)	Fourth Plan	1974-78
0	1	2	3	4	5	6	7
1	Plan expenditure on housing	48	80	110	80	141*	494
2	Total expenditure on Public housing (including 1 above)	250	300	425	250	625	795
3	Private sector	900	1000	1125	900	2175	3640*

*Estimated investment given in the Draft Five Year Plan (1974-79).

B. PHYSICAL ACHIEVEMENT

Sl. No.	Scheme	First Plan	Second Plan	Third Plan & Three Annual Plan	Fourth Plan	Fifth Plan 1974-76
0	1	2	3	4	5	6
		(Number of houses/tenements)				
1	Subsidised industrial housing	43834	56166	65623	16343	1742
2	Low Income Group	3930	49070	82196	36581	71843
3	Middle Income Group		500	18540	9326	14132
4	Village Housing Projects		3000	40492	17555	4792
5	Slum Clearance & Rehousing		18000	51556	14073	31851
6	Rental Housing		735	17300	2439	4328
7	Plantation Labour Housing		300	1314	3135	4866
8	Rural House Sites (in lakhs)				5.00	68.00

Note : The coverage is in respect of schemes started during 1955—60. They do not, therefore, cover certain new schemes like 'one-lakh housing scheme' and 'people's housing scheme' started recently in certain States.

II. EXISTING SITUATION OF SLUMS: MAGNITUDE OF THE PROBLEM

Introduction

2.1 The existence of slums is essentially a problem of poverty. To the extent that the potential for economic growth of the country is limited over the next decade or two it may be expected that slums will continue to exist in our cities. Moreover, the growth in urbanisation that is expected in the foreseeable future means that there will be a continuing growth in settlements and neighbourhoods having people with low income. One of the key challenges for urban policy over the next couple of decades will be a search for means to provide for the possibility of giving access to the poor to adequate shelter. If it is not possible to provide everyone with housing of a high standard it should at least be possible to make provision for a healthy environment in areas which are normally called slums.

2.2 In order to achieve this it is first necessary to gain some appreciation of the magnitude of the problem as it exists today. Only if a realistic appreciation is made of this magnitude is it possible to design programmes which benefit a significant proportion of people who are slum dwellers—as distinguished from programmes which merely go to benefit a small number as is often the case.

An attempt is made here to arrive at estimates of the implied financial costs for universal slum improvement on the basis of estimates of the existing slum population in the country. This involves :

- (i) A review of the existing data sources and an examination of their reliability.
- (ii) An estimation of slum population currently living in slums.
- (iii) Disaggregation of the above estimate to various levels: by State, for Metropolitan cities and other size classes of cities and towns, for a bench-mark year.
- (iv) Projection of slum population over the fifteen year period.
- (v) Assessment of slum population covered under the slum improvement programme.
- (vi) On the basis of the above, estimation of the costs of slum improvement over the next 15 years.

2.3 In covering the above issues an attempt has also been made to provide a brief description of the prevailing slum conditions in the country in order to give some understanding of the problems involved.

Definition of Slum

Slum Areas Legislation

2.4 The term "Slum" is generally used in a loose sense designating areas which are seen to be over-crowded, dilapidated, faultily laid out and lacking in essential services. To some extent, it is a comparative concept which designates certain areas as slums which are seen as much worse in living conditions than some societal norm. Hence, an area designated as a slum in the United States would not necessarily be classified as such in India. For Planning as well as for legal purposes, however, it is necessary to have a well defined legal definition. This was originally done in India in the Central "Slum Areas (Improvement and Clearance) Act, 1956" which has, since then, been emulated by 11 States.

2.5 In legal terms, Section 3 of the "Slum Areas Act 1956" defines slums as areas where buildings :

- (a) are in any respect unfit for human habitation;
- (b) are by reason of dilapidation, overcrowding, faulty arrangements and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light or sanitation facilities, or any combination of these factors, are detrimental to safety, health or morals".

2.6 In determining whether a building is unfit for human habitation for purpose of this Act, regard shall be had to its condition in respect of the following matters, that is to say—

- (a) Repair; (b) Stability; (c) Freedom from damp;
- (d) Natural light and air; (e) Water supply;
- (f) Drainage and Sanitary conveniences;
- (g) Facilities for storage, preparation and cooking of food and for the disposal of waste water.

2.7 Any building therefore is deemed to be unfit if it is defective in one or more of the said matters that it is not reasonably suitable for occupation in that condition.

2.8 Section 3 of the Slum Areas Act 1956, therefore can be divided into two parts (a) it defines the expression "Slum Areas" as well as (b) it lays down tests for the declaration of "Slum Areas". Further, the "Act" provides that while defining an area as slum area on the basis of the above criteria, every building in that area need not be unfit for human habitation or that human habitation in every building in such area should be detrimental to the safety, health or morals of the dwellers.

2.9 The above legal definition places emphasis only on physical aspects of slums. It refers to the inadequacy of shelter in terms of its structural quality, hygienic condition, availability of basic services and the quality of its environment. It includes both old, dilapidated, overcrowded, insanitary authorised buildings as well as unauthorised hutments. However, it does not make any mention of the ownership of the land or the legality or the illegality of structures.

2.10 In enacting slum areas Acts different States have made minor additions to the definition of slum areas. A common addition to the definition given above related to any area being a source of danger to public health. For example, the Andhra Pradesh Slum Improvement (Acquisition of Land) Act, 1956, provides:

"Where the Government are satisfied that any area is or may be a source of danger to the public health, safety or convenience of its neighbourhood by reason of the area being low lying, insanitary, squalid, or otherwise, they may by notification in the Andhra Pradesh Gazette declare such area to be a slum area."

2.11 Similar provisions exist in the Slum Areas Acts enacted in Madhya Pradesh (1956), Mysore (now Karnataka, 1958, 1960, 1973). The Slum Areas Acts of Assam, Punjab, Uttar Pradesh, Tamil Nadu, Maharashtra and Gujarat essentially follow the Central Act for the definition of slum areas.

2.12 The definition of slum areas as enacted in these slum areas legislations is quite broad and may be interpreted to be somewhat unrealistic in the context of the prevailing living and

housing conditions in the country. The legal definition is based on a combination of structural and environmental conditions which may be considered to be of too high a standard given the low incomes and consequent low living conditions in India. A liberal application of these laws can, therefore, result in too wide a coverage of areas defined as slums which may otherwise be areas adequate for human habitation. An example of such an application is the case of the Walled City of Delhi, Shahjahanabad, the whole of which has been declared as a slum. It is clear that many areas in the Walled City have a relatively high quality of essential services like water, sanitation and sewerage. But it is highly congested and has a large proportion of dilapidated buildings, and has therefore been classified as a "Declared Slum" in its entirety. This is merely given as an example to illustrate the problems inherent in the estimation of population living in slum areas. It is for this reason that no firm estimates exist for slum population in the country. One alternative is to merely take the population in areas legally declared as slums. Although this would inevitably include areas which are relatively well served with essential services, it is likely to be an underestimate since some of the newer squatter and other low income areas may not have been declared as slums yet. We have, therefore, attempted to use a diverse set of sources using somewhat different definitions to arrive at a judgemental estimate of slum population which is broadly consistent with the various estimates.

The Content of Slum Legislation

2.13 The First Slum Legislation was introduced in the country in 1956 with the coming into being of the Central Act "The Slum Areas (Improvement and Clearance) Act No. 96 of 1956". Originally enacted for Delhi, the Act applies to Delhi and other Union Territories in the country. Among the States, only the State of Himachal Pradesh has adopted this Act by amending its Preamble in 1971. The main object of the Central "Slum Areas Act" is to provide for the improvement and clearance of the slum areas and for the protection of tenants in such areas from eviction.

2.14 The Act is a special Statute for a special object and purpose for indefinite duration. The main object behind the legislation is to wipe off the evil of slums by improving and clearing them either singly or collectively. The legislation is intended to protect the weaker sections in the transitional period so long as slum last. The Act overrides other enactments in force and puts additional restrictions on certain rights.

2.15 The Act empowers the Government (i) to ask the owners of slums to provide necessary amenities failing which to undertake itself the provision of amenities to slum dwellers and to realise the cost thereof from the owners (ii) to order the owners to repair the slums and to take other measures that may be essential for the convenience of the Slum dwellers, and (iii) to acquire slum areas; the land on which slums had been built and are standing.

2.16 The 'Act' also provides for some compensation (with variation in different State Acts) to be given to the owners of slums in the event of their properties being completely acquired. The Central 'Act' provides for the payment of 60 times the monthly rent by way of compensation for the acquisition of slum areas.

2.17 The Act also provides for the demolition of the building in the event repairs (minor or major) are not sufficient to make them reasonably habitable for slum dwellers. It authorises the Government to declare any slum area to be a clearance envisaging the demolition of buildings in the event these are found unfit for human habitation or dangerous or injurious to health; and to undertake the redevelopment of the said area in the public interest or to permit the owners of the slums to undertake such redevelopment in accordance with the approved plans,

2.18 Similar to the Slum Areas (Improvement and Clearance) Act, No. 96 of 1956, passed by the Parliament, many States in the country opted for and passed their own "Acts" to deal with the problem of Slums. So far 11 States have enacted slum legislation. Mostly, the "Slum Areas Acts" passed by the States are based on the Central "Slum Areas" Act but with minor modifications in respect of the quantum of Compensation to be paid. The important State 'Slum Acts' are as follows:

- (1) The Andhra Pradesh Slum Improvement (Acquisition of Land) Act of 1956.
- (2) The Madhya Pradesh Slum Improvement (Acquisition of Land) Act, 1956.
- (3) The Mysore Slum Areas (Improvement and Clearance) Act, 1958 followed by the Mysore Slum Areas (Improvement and Clearance) Amendment Act, 1960 and superseded by the Mysore Slum Areas (Improvement and Clearance) Act, 1973.
- (4) The Assam Slum Areas (Improvement and Clearance) Act, 1959 (Assam Act No. XII of 1961).
- (5) The Punjab Slum Areas (Improvement and Clearance) Act, 1961 (No. 24 of 1961).
- (6) The Uttar Pradesh Slum Areas (Improvement and Clearance) Act (No. XVII of 1962).
- (7) The Tamil Nadu Slum Areas (Improvement and Clearance) Act, 1971.
- (8) The Maharashtra Slum Areas (Improvement and Clearance and Redevelopment) Act of 1971; it was followed by the Maharashtra Slum Improvement Board Act of 1978.
- (9) The Gujarat Slum Areas (Improvement, Clearance and Redevelopment) Act of 1973.
- (10) The West Bengal Slum Areas (Improvement and Clearance) Act, 1972.

Estimating the Magnitude of Slum Population

Present Status of Data

2.19 Any attempt to estimate the magnitude of the existing slum population in the country, with its disaggregation at the various levels, is beset with two major problems, namely, (a) the non-availability of reliable and comprehensive data in respect of slum population and (b) the conceptual difficulties arising from the adoption of varying definitions of "Slum Area" as used in the slum legislations and the various censuses/surveys and other such relevant literature which form the basis of such estimates.

2.20 It will be, however, worthwhile to have an overview of the present status of data on slum population available in the country. In the first instance it may be mentioned that the literature surveyed for obtaining various estimates of slum population is in no way exhaustive, but efforts have been made to reach to as many sources as possible particularly those reports which are based on systematically conducted surveys and censuses of slum areas.

2.21 The data base of slum population in the country is quite weak notwithstanding the fact that a good deal of attention came to be focussed on the need to improve the conditions in slums. There is no systematic time series data available on slum population on a country wide scale. It was only after the release of the findings of a nation-wide sample survey of slums, conducted by the National Sample Survey Organisation (NSSO) in 1976-77, and published

in 1980, that a tentative, though restricted, estimate of slum population of Class I cities (cities with population over 100,000 in the 1971 Census) in the country became available. Another set of data on slum population, released in 1981, related to the estimate computed by the National Building Organisation. Prior to these sources whatever information was available on slum population, was highly sporadic. Most of the estimates available were the result of a series of ad-hoc surveys carried out in some of the big cities whereas other estimates available were conjectural in nature as these were based on the assumption of the Working Group on Slums (set up by the Planning Commission in 1972) that 20 per cent of the urban population in the country constitutes slum population. In most of the cases it has been observed that the State Governments and the local bodies have based their estimates of slum population on the working group's assumption while undertaking various schemes of slum clearance/slum improvement.

2.22 The following is a review of the existing sources of data:

(i) "Sarvekshana" (NSSO)—1980¹

The NSSO estimates of slum population are based on a nation wide sample survey on "Economic Condition of Slum Dwellers in Cities" conducted by the NSSO in its 31st round covering a period of one year *i.e.*, from July 1976 to June 1977. The Survey was restricted to all the Class I cities in India and two Class II cities of Shilong and Pondicherry. The survey covered only the "City Proper" and not the "urban agglomeration" for all the Class I cities in the country. Further, in eight of the nine metropolitan cities (with population of one million and above in 1971), the survey was restricted to "Declared Slums" only. In the case of the other 142 Class I cities the survey covered both "Declared Slums" notified and "Undeclared Slums" which were assessed as slums during the first three months of the survey. "Declared slums" with adequate sanitary and water facilities were excluded from the purview of the survey. For purpose of identification, an undeclared slum has been defined as "an area/unit having 25 or more kacha structures mostly of temporary nature or 50 or more households residing mostly in kaccha structures, huddled together or inhabited by persons with practically no private latrine and inadequate public latrine and water facilities". The survey covered 1321 "Declared Slums" and 3320 "Undeclared Slums" in 142 Class I cities having 1971 census population of less than one million and 5626 "Declared Slums" in Eight Big Cities with 1971 census population of one million plus. All the undeclared slums in the metropolitan cities have been kept out of the survey coverage". Slum population has been estimated on the basis of house listing in "Sample Slums".

(ii) *Housing Statistics: National Buildings Organisation*

Under this source, estimates are available for slum population at the national, and metropolitan city levels, the former disaggregated according to population size classes of cities/towns for the year 1981 which also include cities in the population size class below one lakh.

1. SARVEKSHANA—Journal of the National Sample Survey Organisation, Vol. III, No. 4, April, 1980.

2 For purpose of presentation of data all the Class I cities in a State/Union Territory have been grouped into the following three categories.

Group A : Includes cities of Shillong and Pondicherry and other Class I cities with a 1971 Census population 1 lakh—3 lakhs.

Group B : Includes Class I cities with 1971 Census population 3 lakhs—1 million.

Group C : Includes Class I cities with 1971 Census population of one million Plus.

The estimates are the result not of any survey of slums conducted by the NBO but are based on the data on slum population supplied by the various State governments/local bodies to the Central Ministry of Works and Housing under the scheme of Environmental Improvement of Slums as well as on the estimates of Slum population published in various reports, etc. These estimates have been worked out by assuming certain growth rates of slum population for each size class of towns and cities on the basis of growth rates of slum population available for a few cities in each size class at two points of time. The slum population has then been worked out for the year 1981 taking the 1971 population as base. The estimates, though comprehensive, suffer from some limitations in their degree of accuracy and the conceptual absence of "definition of slums".

(iii) *Town and Country Planning Organisation:*

This source provides information in respect of Slum Population for selected States in the country. The data (on slum population) are supplied for the purpose of monitoring of the 20-Point Programme to the Town and Country Planning Organisation, Government of India, Ministry of Works and Housing under the Scheme of "Environmental Improvement of Slums", and the data relate to "identified slums" only in towns covered under the EIS Scheme. There is therefore some overlap between the N.B.O. estimates and these estimates. The difference, however, is that the N.B.O. has extrapolated the reported data as explained above taking account of other sources while the T.C.P.O. estimates are based directly on the slum population figures supplied by the States and Union Territories under the 20-Point Programme.

Like other sources this set of data is also not free from drawbacks. These could be referred to:

- (i) it is not always clear which year the data relates to;
- (ii) data are available only for those towns which have been covered under EIS Scheme and not for all the towns in the State. Hence, the coverage is partial;
- (iii) The basis of estimates as provided by the State governments is not known.

However, care has been taken to give the required weightage to the population of the towns covered under the scheme. The criterion used is that the population of the Covered Cities/Towns in a State should form a substantial proportion of the total urban population of the respective State. On an average about 60 per cent of the urban population in the selected States has been covered under the scheme.

(iv) *Other Sources: Ad hoc Reports*

Another set of data available on size of slum population includes the various survey reports, Censuses and other such literature (an exhaustive list is appended along with table 9 in the appendix). Most of the Surveys/Censuses relate to a few metropolitan cities and towns and were conducted by the respective State governments or local bodies at different points of time. Some of the estimates are based on the findings of special committees/steering groups especially appointed for the purpose.

2.23 More often than not, the efforts made through surveys, etc. to estimate the slum population, as has been explained earlier, have been piecemeal and covered only the local areas as and when any scheme for slum clearance/improvement was undertaken in a city. Some of these studies were "research studies" with a wider perspective of studying the various socio-economic aspects of slums. The data available from these sources nevertheless offer different estimates of metropolitan slum population at different points of time which have been found useful in drawing up a perspective of slum population for the later years.

2.24 The different estimates of slum population have one broad limitation: their partial coverage of slum population of the city/town to which these relate. In many cases the data relate only to "City, Proper" or the Municipal limits of a city leaving aside a sizeable slum population living in the "outgrowth". While in others a large bulk of slum dwellers have not been covered for reason of conceptual limitation, arising mainly from adopting a certain definition (not necessarily the definition(s) enshrined in various slum legislations) of slum area or by using a criteria to include or exclude certain slum areas from the purview of the study. For instance, the NSSO study covered only the "City Proper" and from among the slum areas, it considered only a part of the total number of "declared slums" since many of them were deemed to have been upgraded. On the other hand in a study of Ahmedabad the definition of slum adopted referred only to "Kaccha hutments" and excluded the pacca "Chawls"; yet in another study it is just the converse.

2.25 Although each of the available sources have deficiencies of the kind described above, it is clear that they are quite useful in arriving at a base for working out the existing magnitude of slum population for planning purposes. Naturally, in each case, much more detailed estimates would have to be made at the local level for the design of projects to improve the conditions in the existing slums.

Existing Estimates of Slum Population

Sixth Plan Estimates

2.26 The estimates of slum population in the Sixth Five Year Plan are based on the assumption of the Working Group (set up by the Planning Commission) that of the total urban population, nearly a fifth is estimated to constitute the slum population. The Plan thus has estimated that by 1985 about 33.1 million people would be living in Slums in the country.

N.B.O. Estimates

2.27 Table 2.1 lists the estimated slum population by the size class of urban agglomerations. According to NBO estimates, in 1981 nearly 19 (18.75) per cent of India's Urban Population resided in slums. In absolute terms the slum population was of the order of 29.8 million. A break up of slum population according to different size classes of urban agglomeration indicates a major concentration of this population in Million Plus Cities. The percentage in big cities was almost 31 per cent. In all about 12.9 million people were living in slums in 12 metropolitan cities which constituted 43 per cent of the country's total slum population. This is followed by Cities in size class 3 lakh—1 million. In these cities almost a fifth (19.56 per cent) of their population resided in slums. Likewise in the next category of class I cities (1 lakh—3 lakhs) a comparable percentage (18.12 per cent) of urban population constituted slum population. In general, large sized cities indicate a higher percentage of slum population. In all the Class I cities, taken together, more than three-fourths (77 per cent) of country's total slum population was concentrated in these cities. On an average almost a fourth (24 per cent) of Class I cities' total population constituted slum population as against about 11 per cent of the total population of cities below 1 lakh population. Further, of the total slum population in class I cities, almost 56 per cent resided in Metropolitan Cities.

NSSO Estimates

2.28 Before any detailed description is attempted of the NSSO estimates it will be pertinent to recall the various limitations which these data suffer from. In the first instance the NSSO data relate to class I cities covering only the "City Proper"; only declared slums in metropolitan cities, and declared and undeclared slums in other class I cities. Considering these limitations the estimates of slum population for these cities are bound to be on the lower side. It may

also be mentioned that because of the varying criterion used for the selection of slum areas, the figures of slum population for different categories of class I cities (based on size class of urban agglomeration) are not additive. Although the reference period of the survey was 1976-77, the percentages of slum population to total population in each size class of urban agglomeration have been worked out on the basis of 1971 Census population.

2.29 Table 2.2 lists the estimated slum population by size class of urban agglomerations which shows that, according to the N.S.S., about 3.5 million people resided in slums in the eight metropolitan cities in 1976-77. This constituted about 17 per cent of the total 1971 population in these cities. There are two reasons why this may be considered an under-estimate of the actual slum population in these cities. First, as mentioned, the survey covered only the city proper and not the urban agglomeration. In the larger cities, the "city proper" often constitutes only a small part of the urban agglomeration. Second, only declared slums were taken and the improved slums were excluded. Hence the figure of 17 per cent can be taken to be a firm lower limit of the estimated slum population in these cities. For the remaining 142 Class I cities, the magnitude of slum population was of the order of about 5 million accounting for about 16 per cent of the total population of these cities. A perusal of these figures in this Table also reveals that cities falling under size class 3 lakhs—1 million had a higher percentage (18 per cent) of slum population in relation to their total population as compared to the rest of the Class I cities.

2.30 These figures are consistent with the N.B.O. estimates except for the metropolitan cities where the underestimation is quite understandable for the reasons given above. It should be noted that the error caused by taking only the city proper instead of the urban agglomeration as a whole is not likely to be large for most of the non-metropolitan cities.

2.31 Table 2.4 gives a Statewise distribution of slum population in the selected States of India, disaggregated according to the size class of urban agglomerations. Table 4a gives a composite picture of slum population for the Class I cities other than the metropolitan cities. A perusal of the Table 2.4 indicates that Maharashtra State had the largest proportion of slum dwellers residing in the State, the concentration of slum dwellers being large in cities belonging to size class 3 lakhs—1 million. This is followed by the State of Andhra Pradesh which had almost an equivalent percentage of slum population as that of in the State of Maharashtra but with a far larger percentage (about 50 per cent) of slum population in cities having 1971 population 3 lakhs—1 million. West Bengal ranked third in order and had almost a fourth of its population in Class I cities as slum population, followed by Union Territory of Delhi and the States of Punjab, Gujarat, etc. States having comparatively lower percentage of slum population included Assam, Bihar, Haryana, Karnataka, Kerala, Rajasthan, Uttar Pradesh. The larger concentration of slum population in cities with population 3 lakhs—1 million again strengthen the fact that large sized cities have a higher percentage of slum population.

TCPO Estimates

2.32 These estimates are based on figures of identified slum population in cities/towns which have been covered under the Scheme "Environmental Improvement of Slums" operating in States/union territories in the country. Since data were available for only a limited number of cities and towns covered so far under this Scheme, care has been taken to accord due weightage to the relative share of "identified population" (of the cities/towns identified under the scheme) in the 1981 total urban population of the respective State at the time of working out the proportion of slum population in each State. In the event this percentage is found to be high (say 50

per cent or more) it has been presumed that the population of the "identified towns" have a wider coverage of large cities which, it is further assumed, have a higher percentage of slum population.

2.33 Hence, in such cases the population of the identified towns/cities has been considered as representative of the States' total urban population and as such it has been used to form the basis for working out the percentage of slum population in the State. The percentage of slum population has been worked out on the basis of 1981 census urban population of the state under study. Table 2.7 gives estimates of identified slum population of the selected States in India. According to the T.C.P.O. data almost 28 per cent of urban population of the selected States was residing in slums. West Bengal and Bihar had the highest percentage of slum dwellers (37 per cent) followed by Andhra Pradesh (35 per cent), Uttar Pradesh (33 per cent), Maharashtra and Orissa (30 per cent). States with a lower percentage of slum population were Punjab (28 per cent), Rajasthan (23 per cent), Assam (18 per cent), Gujarat (16 per cent), Haryana (15 per cent), Karnataka (9 per cent) and Kerala (7 per cent).

Task Force Estimates of Slum Population

2.34 As discussed earlier, the task of estimating the slum population in the country is beset with difficulties inherent in the data sources available which have been discussed above. Nevertheless, it is possible to use these data to arrive at approximate estimates which are broadly consistent with the indications given by these data sources. Hence an attempt has been made to work out estimates of slum population by using the information available from the different sources discussed:

- (i) National Sample Survey (NSS)
- (ii) National Buildings Organisation (NBO)
- (iii) Town and Country Planning Organisation (TCPO)
- (iv) Data available from different survey reports, etc. on slums—mainly for the metropolitan cities.

Estimates of slum population have been worked out for the following levels, viz.,

- (a) National level
- (b) State level
- (c) Metropolitan City level, and
- (d) Other size Classes of Cities/Town level.

2.35 The method used for such an estimation include the following steps:

- (i) In order to achieve a fairly good degree of accuracy the entire urban population in a State was distributed into different size classes of cities/towns on the basis of 1981 census population in the following order:
 - (a) cities/towns with population of below 100,000
 - (b) cities having population between 100,000 but below one million (all Class I cities excluding metropolitan cities).
 - (c) cities with population of one million and above.

- (ii) Two sets of estimates have been prepared in order to indicate the possible range in the estimated magnitudes—given the imprecision in the data sources. There is thus a high estimate and low estimate. This was done by examining all the available sources of data and other information available in each State.
- (iii) Having assumed the “Probable Percentage”, of slum population for the three size classes of cities|towns in each State, slum population has been worked out on the basis of the ‘assumed percentages’ by using 1981 Census population for each size classes in the selected States|union territories in the country. The States|union territories for which data were not available have not been considered. These include Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Arunachal Pradesh and Nagaland. Only two union territories have been considered, namely Delhi and Chandigarh.

2.36 Table 2.11 gives detailed estimates of slum population in the country for the year 1981 at the following levels: (i) Country Level (ii) State Level (iii) Metropolitan City Level (iv) Other size classes of cities|town level, comprising cities|towns having population below one lakh and those with population one lakh but below one million.

Slum Population at the Country Level

2.37 According to the Task Force estimates the slum population in the country (selected States and union territories) as of 1981 was of the order of about 32 million based on low estimates, and about 40 million on the higher side of the estimates. This population constituted one fifth (20 per cent) and one fourth (26 per cent) respectively of the total urban population in the country (of selected States|union territories). Further, the figures of slum population showed a preponderance of slum dwellers in the 12 metropolitan cities, which had almost a third of their population residing in slum areas. Based on the higher side of the estimates, about 40 per cent of the total population of these cities lived in slums. The share of metropolitan cities in country's total slum population was about 40 per cent. Next come the Class I cities (other than Metro Cities) which had in absolute terms a population of 9 to 13 million accounting for 18 to 25 per cent of their total population. The share of slum population in this size class in the total slum population in the country was 29 to 31 per cent.

2.38 In the next category of cities|towns (below 1 lakh) about 9 million people were living in slums, constituting 15 per cent of their total population on the lower side while higher estimate was of the order of about 12 million, accounting for 20 per cent of the total population of cities below one lakh. These cities shared 29 per cent of the total slum population in the country in 1981.

2.39 The Task Force estimate of slum population compares well with that of NBO. Considering all classes of cities|towns the Task Force low estimate is in the neighbourhood of the NBO estimate which placed the slum population at 29.89 million (18.75 per cent) as against the task force estimate of 32 million (about 20 per cent). But when these are compared with the high estimates of the Task Force, the latter far exceeds the estimates of NBO, the high estimate of slum population being about 40 million, constituting about a little over 25 per cent of the total urban population in the country. Similar is the position with other size classes of cities|towns.

State-wise Position

2.40 Among the States, Maharashtra emerges with the highest slum population, the low estimate being about 6.62 million people, constituting about 30 per cent of its total urban

population while the high estimate is about 7.7 million, accounting for about 35 percent of the urban population of the State. Reasons for such a high proportion of slum population are not difficult to seek. The State is the most urbanised State in the country having a fairly high degree of industrialisation. The State share of slum population in the total country's slum population was 19 percent.

2.41 Next comes the State of West Bengal which had about 4.19 million (on the low side) and about 4.91 million (on the high side) slum dwellers, accounting for 29 per cent and 34 per cent of the total urban population in the State.

2.42 This is followed by the State of Andhra Pradesh having a fairly large population of slum dwellers. On the higher side of estimate the State had a slum population of 4.21 million forming a little less than one third of its urban population. Other States having a fairly large number of slum dwellers included Uttar Pradesh, Tamil Nadu, Bihar, Gujarat, while those which accounted for a smaller share were Assam, Karnataka, Kerala, Orissa and Rajasthan.

Estimates for Metropolitan Cities

2.43 In addition to the NSSO and NBO estimates, various special surveys, studies, etc. have been carried out at different points of time in order to estimate the slum population in the metropolitan cities. (The annex to Table 2.9 lists these sources in detail). These sources have been used to estimate the existing magnitude of slum population in the 12 metropolitan cities in the country and are based on the 1981 census population data.

2.44 Table 2.12 gives estimates of the slum population in million plus cities on the basis of high and low estimates (as before) of percentage slum population applied to the 1981 census population. The low estimate of metropolitan slum population comes to about 33 per cent of total metropolitan population in 1981. The high estimate comes to about 38 per cent. In absolute terms the estimates therefore range from about 14 million to about 16 million slum dwellers in 1981.

2.45 Some comments on individual cities are in order. Almost three quarters of the total slum population in the 12 metropolitan cities resides in the 4 largest cities: Calcutta, Bombay, Delhi and Madras. Bombay has the largest slum population while that of Calcutta is somewhat low because of the widespread Bustee Improvement Programme. In the case of Delhi, the number is inflated somewhat because the whole of the walled city of old Delhi is a declared slum, as remarked earlier. Moreover, the estimate also includes a large number of clusters of squatter settlements, unauthorised colonies and urbanised villages in addition to the traditional slum areas. Among the other cities, Lucknow and Kanpur also had a high proportion of slum population ranging between 35 to 45 per cent of total population. The other cities seem to have comparatively lower proportion of slum population.

Conditions in Slums

2.46 Having assessed the magnitude of the slum population at various level, it will be useful to get an overview of the prevailing conditions in slum areas in the country. The analysis of the existing conditions in slum areas is based on the findings of the "Sample Survey" conducted by the NSSO in the year 1976-77.

2.47 One of the important indicators of overcrowding is the density of population. In general, the density of population in a slum area is much higher than the average density of the city. This is evident from the data analysed in Table 13 which gives figures for density of slum population and average size of slum households in Class I cities. Apart from the density of slum

population being higher in slum area a wide inter-city variation in density of slum population and the average size of household is found among the different size classes of Class 1 cities under study. In between, cities (other than the metropolitan cities) in the size class of population 1 lakh—3 lakhs had more densely populated slums as compared to the cities in the next category (3 lakhs—1 million). As for metropolitan cities the differential in the respective densities of these cities was marked by a big margin. As against the over-all density of 97 persons per acre (for these eight metropolitan cities) city of Kanpur had the highest density of slum population with 484 persons per acre, followed by Delhi and Hyderabad 255 and 210 respectively. But in the case of the metropolis of Bombay there seems to be some inaccuracy in the density figures, which has been given as 40 persons per acre which is apparently much lower than not only the average density of population of the city of Bombay but also to that of in smaller metropolitan cities. This looks incongruous in the light of the fact that the Metropolis of Bombay has by far the largest slum population of all the cities in the country.

Other Major Characteristics

2.48 An attempt is made to analyse some of the major characteristics of slums in the country in order to have an insight into tenurial pattern, rental structure, type of structure (Kaccha|Pucca) provision of the most critical minimum amenity like latrine (an indication of the sanitary condition) and the ownership pattern. All of this information is based on the National Sample Survey.

2.49 An analysis of the tenurial pattern of slum areas reveals a higher percentage of slum dwellers residing in rented houses. This percentage is higher in the large sized cities. The average monthly rent paid varied between Rs. 15 and Rs. 18 with a rent slightly lower in the eight large cities (when compared to cities with population 3 lakhs—1 million). Such a variation in rent has much to do with the quality of dwelling unit. A perusal of housing stock in slums shows that a very large percentage of slum population lived in Kaccha and semi-pucca dwellings. On the other hand the number of slum dwellers living in houses with pucca roof and wall was larger in the bigger cities. This corroborates the poor quality of housing stock in slums. For instance almost three-fourth of the slum dwellers in Hyderabad lived in dwellings where floor material is that of mud; also 57 percent of the dwellings had mud walls; nearly one fourth had thatched roof. With the exception of Bangalore and Ahmedabad (where the conditions were found slightly better) similar conditions prevailed in all other big cities.

2.50 A pre-requisite of satisfactory sanitary conditions is the existence of latrines in good measure. The provision of latrine facility in slums was found to be highly unsatisfactory. As many as 90 percent of the households in slums had no access to separate latrine for their exclusive use and therefore had to use communal latrines or open fields. Most of the households who had separate latrines had other than sanitary latrines.

2.51 Another important feature which has a bearing on conditions in slums relates to the pattern of ownership of dwellings. Almost two-third (65 percent) of the total land area under slums in the million plus cities was under public ownership, housing as it did, about 44 per cent of the total slum population in these cities. Conversely, as much as 56 per cent of the total slum population resided on privately owned land which constituted only 35 per cent of total slum land. But the situation was some what different in other Class I cities where the proportion of privately owned land was higher with a much large number of people living on it. Almost 60 percent of the total slum dwellers lived on privately owned land which accounted for about three-fourth (73 percent) of the total slum land in cities with population of 3 lakh—1 million. This proportion in the next smaller category of cities (1 lakh—3 lakhs) was about 51 per cent. Further about 80 per cent of the slum population were found to live in slums

located in the residential areas of the cities and the remaining 20 percent in slums situated in industrial, commercial and other areas (of the cities).

2.52 The acuteness of the slum problem is well reflected by the extent of the availability of certain minimum critical amenities and facilities. Hence, the attempt has been made to present a composite picture in regard to the availability/non-availability of these facilities in Table 2.15¹. Contrary to the general belief that the problem of slums is more acute in the big cities, it has been found that the metropolitan/big cities provide relatively greater access to housing and other facilities/amenities in comparison of other Class I cities. This is evident from Table 2.15 which indicates that a much more comfortable position is enjoyed by slum dwellers in metro/large cities in respect of the availability of amenities like electricity, approach roads, water facilities, latrine facilities, underground sewerage system and the like.

2.53 The observations made above have been based on the findings of the National Sample Survey as mentioned earlier. Some of the results are explained by the fact that survey covered only the "City Proper" and excluded the outgrowths of big cities. The "City Proper" generally has a better provision of basic amenities as compared to the outlying areas of metropolitan cities. People living in slums located in the core areas of these cities, therefore, have relatively better access to these facilities as compared to those located in the fringe areas. Slums located in the outgrowths of big cities generally lack the minimum critical amenities. Hence any conclusion based on the findings of the N.S.S. Survey must take account of this bias that the sample suffers from.

2.54 However, the position in regard to water-logging during monsoons and the general absence of underground sewerage system was found to be quite unsatisfactory in all the three categories of cities/towns, where still a substantial population remains affected because of these two problems.

2.55 A number of schemes for the improvement of the living and environmental conditions are in operation in the country. (A detailed discussion is done in the ensuing paras of these schemes, their coverage etc.). However, on the basis of the data collected during this survey, an insight is provided into the coverage of slum population under the Minimum Needs and Slum Clearance Programmes. The extent of the availability of various services/facilities under the Minimum Needs Programme is awfully low in the case of Class I cities other than the metropolitan cities, where hardly one fourth of the total slum population have been covered. However, this percentage in metro-cities was of the order of 60 percent. Almost a similar position was found in the case of the other programme, namely the Slum Clearance Programme. Nonetheless, a sizeable percentage (almost 60 percent) of the total slum population have experienced some development in slum areas during the five year period prior to the date of the survey. It is clear from the foregoing that deplorable conditions prevail in slums in the country in as much as these are characterised by poor housing and grossly inadequate other facilities. There is a general dearth of urban infrastructure in slums. The conditions of slums are more deplorable in smaller cities/towns which is mainly an outcome of the discriminatory policies adopted for slum improvement in urban areas. So far, the bulk of the efforts towards slum improvement have been concentrated in the bigger cities.

1. Note the percentages presented in the Table reflect the availability and not the adequacy of these facilities. For example, the entire population of a slum inhabited by a population of 1000 or more was considered as having the facility of drinking water even with one single tubewell for the use of the entire slum population. This is applicable to other facilities too.

TABLE 2.1

ESTIMATED SLUM POPULATION BY SIZE CLASS OF TOWNS AND CITIES, 1981* (NBO)

(Population in '000)

Population Size Class of Cities/Towns	Number of UA/Cities/Towns (in 1981)@	Urban Population	Percent	Estimated Slum Population	Percent	Percentage of Slum Population to total population in each size class
1	2	3	4	5	6	7
Less than 1 lakh	3,141	63,638	39.93	6,783	22.69	10.66
1 lakh—3 Lakhs	150	23,462	14.72	4,252	14.23	18.12
3 lakhs—1 million	59	30,269	18.99	5,920	19.81	19.56
1 million plus	12	42,024	26.36	12,934	43.27	30.78
All Classes	3,362	1,59,393	100.00	29,889	100.00	18.75

* Population figures for Assam and Jammu & Kashmir States have been estimated on the basis of the 1981 Census data of other States.

@Number of Towns in Assam and Jammu & Kashmir in 1971 Census have been taken.

Source : National Buildings Organisation : Hand Book (No.3) Housing Statistics—1981.

TABLE 2.2

SLUM POPULATION IN CLASS I CITIES—ALL INDIA, 1976-77 (NSSO)

(Population in '000)

Population Size Class/City Group (1971 Census Population)	1971 Census total Population of Cities	Population in Slums	
		Population	Percentage to 1971 Census Population
1	2	3	4
City Groups*			
(A) 1 lakh—3 lakhs	16,627	2,241	13.48
(B) 3 lakhs—Million	15,250	2,748	18.00
(C) 1 million plus	20,775	3,523	16.95

*For details of City Groups refer Table 2.3.

Source : NSSO ; Sarvekshana, Vol. III, No. 4, April, 1980.

TABLE 2.3

COVERAGE OF NATIONAL SAMPLE SLUM SURVEY, 1976-77—ALL INDIA

(Population in '000)

Population Size Class City Group (1971 Census population).	1971 Census total population of cities	Total number of Slums			No. of sample slums.	Area under slums (areas)	Estimated number of		
		Declared	Undeclared	Total			households	Persons	percentage of total 1971 Population (Col.2)
1	2	3	4	5	6	7	8	9	10
City Group (A)									
1—3 lakhs	16,627	626	1,878	2,504	640	14,859	471	2,241	13.48
(B)									
3-lakhs—1 million	15,250	695	1,442	2,137	546	24,693	573	2,748	18.00
(C)									
1 million plus	20,775	5,626	—	5,626	736	36,367	766	3,523	16.95

Notes : 1. Reference Period of the Survey : July, 1976—June, 1977. NSS 31st Round.

2. Coverage : (a) All Class I Cities throughout India with population (1971) one lakh or more.

(b) Two Class II Cities, namely Shillong and Pondicherry having 1971 Census Population of less than one lakh.

(c) Only the "City Proper" and *Not urban agglomeration* has been covered in the case of all the Class I Cities.

(d) Class I Cities of Srinagar and Imphal have no slums.

3. (a) In the case of one million plus cities only declared slums whereas in other Class I Cities (with population less than one million) both *declared* and *undeclared* slums have been covered.

4. City Groups: (A) Cities of Shillong, Pondicherry and Class I Cities having population (1971) of 1 lakh or more but less than 3 lakhs.

(B) Cities having population (1971) three lakhs or more but less than one million.

(C) One million plus cities (1971 Census population).

5. Figures relate to declared slums only in eight Big Cities and to both declared and undeclared slums in the rest of 142 Class I Cities. Hence, the figures are not additive over all cities and also not strictly comparable.

6. Slum Population has been estimated on the basis of houselisting in sample slums.

7. For identifying undeclared slum, a "slum" has been identified as "an area/unit having 25 or more kaccha structures mostly of temporary nature, or 50 or more households residing mostly in kaccha structures, huddled together, or inhabited by persons with practically no private latrine and inadequate public latrine and water facilities".

Source: NSSO: SARVEKSHANA, VOL. III, No. 4, April 1980.

TABLE 2.4

STATEWISE DISTRIBUTION OF SLUM POPULATION BY SIZE CLASS, 1976-77 (NSSO)

(Population in '000)

State/Union Territory	(A) 1 Lakh—3 Lakhs			(B) 3 Lakhs—1 Million			(C) 1 Million plus		
	1971 Census total Pop. of Cities	Popula- tion in slums	Percentage of slum to Urban Pop.	1971 Census total Pop. of Cities	Popula- tion in slums	Percent- age of slum to Urban Pop.	1971 Census total Pop. of Cities	Popula- tion in slums	Percent- age of slum Pop. to Urban Pop.
1	2	3	4	5	6	7	8	9	10
Andhra Pradesh	1,536	322	20.96	672	334	49.70	1,607	240	14.93
Assam	146	5	3.42	..	..	..	..	..	..
Bihar	989	55	5.56	832	72	8.64	..	..	..
Gujarat	549	64	11.65	1,240	223	17.98	1,592	42	2.64
Haryana	227	9	3.96	..	..	..	..	..	..
Jammu & Kashmir	158	15	9.49	..	..	..	..	..	..
Karnataka	956	107	11.19	735	45	6.14	1,541	167	10.84
Kerala	284	20	7.04	1,183	102	8.62	..	..	..
Madhya Pradesh	941	135	14.34	1,714	189	11.02	..	..	..
Maharashtra	2,083	599	28.76	2,121	664	31.30	5,971	665	11.13
Orissa	554	92	16.61	..	..	..	..	..	..
Punjab	447	17	3.80	836	221	26.42	..	..	..
Rajasthan	927	65	7.01	933	103	11.03	..	..	..
Tamil Nadu	1,469	156	10.62	1,522	202	13.28	2,469	990	40.09
Uttar Pradesh	2,989	167	5.57	2,422	253	10.44	1,158	110	9.50
West Bengal	1,974	363	18.37	738	339	45.93	3,149	553	17.57
Chandigarh	233	22	9.44	..	..	..	..	..	..
Delhi	..	..	..	302	2	0.66	3,288	756	22.99

Source: NSSO : SARVEKSHANA , Vol. III, No. 4, April 1980. Based on a Nation wide Sample Survey of slums 1976-77. For details please refer to Table 2.3

TABLE 2.4.A

STATEWISE ESTIMATE OF SLUM POPULATION— ALL INDIA, 1976-77 (NSSO)

States	% of Slum Pop. to total Pop. of Class I Cities other than the Metro. Cities (1971 Census Pop.)	Size Class of Urban agglomeration	
		(a) 1 lakh—3 lakhs	(b) 3 lakhs—1 Million
1	2	3	4
1. Andhra Pradesh	29.67	20.96	49.70
2. Assam	3.42	3.42	..
3. Bihar	6.97	5.56	8.64
4. Gujarat	16.02	11.65	17.98
5. Haryana	3.96	3.96	..
6. Jammu and Kashmir	9.49	9.49	..
7. Karnataka	8.92	11.19	6.14
8. Kerala	8.32	7.04	8.62
9. Madhya Pradesh	12.16	14.34	11.02
10. Maharashtra	30.00	28.76	31.30
11. Orissa	16.61	16.61	..
12. Punjab	18.56	3.80	26.42
13. Rajasthan	9.03	7.01	11.03
14. Tamil Nadu	11.98	10.62	13.28
15. Uttar Pradesh	7.75	5.57	10.44
16. West Bengal	25.87	18.37	45.93
17. Chandigarh	9.44	9.44	..
18. Delhi	0.66	..	0.66

Source: SARVEKSHANA, Vol. III, No. 4, April, 1980.

TABLE 5

STATEWISE COVERAGE OF SLUMS IN NATIONAL SAMPLE SURVEY, 1976-77

(Population in '000)

State/Union Territory	City group	1971 Census Total Population of Cities	Total Number of Slums			No. of Sample slums	Area under slums (acres)	Estimated number of		
			Declared	Un-declared	Total			House-holds	Persons	Percentage to Urban Population
1	2	3	4	5	6	7	8	9	10	11
1. Andhra Pradesh	A	1536	38	305	343	58	2046	75	322	20.96
	B	672	83	139	222	26	875	72	334	49.70
	C	1607	283	..	283	56	1143	47	240	14.93
2. Assam	A	146	..	20	20	10	102	2	5	3.42
3. Bihar	A	989	16	108	124	42	1432	10	55	5.56
	B	832	2	104	106	47	10428	16	72	8.64
4. Gujarat	A	549	11	60	71	21	194	11	64	11.65
	B	1240	12	314	326	48	405	43	223	17.98
	C	1592	17	..	17	20*	577	7	42	2.64
5. Haryana	A	227	5	24	29	11	147	3	9	3.96
6. Jammu and Kashmir	A	158	..	15	15	16*	37	3	15	9.49
7. Karnataka	A	956	86	19	105	29	468	19	107	11.19
	B	735	18	9	27	19	230	9	45	6.14
	C	1541	141	..	141	52	3451	30	167	10.84
8. Kerala	A	284	18	28	46	9	136	3	20	7.04
	B	1183	22	109	131	39	831	17	102	8.62
9. Madhya Pradesh	A	941	52	142	194	35	939	26	135	14.34
	B	1714	73	102	175	46	582	37	189	11.02
10. Maharashtra	A	2083	208	334	542	77	1936	117	599	28.76
	B	2121	138	288	426	79	5434	127	664	31.30
	C	5971	203	..	203	212	16523	148	665	11.13
11. Orissa	A	554	27	142	169	16	2838	24	92	16.61
12. Punjab	A	447	12	11	23	14	36	4	17	3.80
	B	836	16	24	40	22	796	46	221	26.42
13. Rajasthan	A	927	82	42	124	40	539	13	65	7.01
	B	933	113	10	123	48	2276	20	103	11.03
14. Tamil Nadu	A	1469	3	271	274	67	812	34	156	10.62
	B	1522	38	181	219	53	669	44	202	13.28
	C	2469	1202	..	1202	100	5212	198	990	40.09

1	2	3	4	5	6	7	8	9	10	11
15. Uttar Pradesh	A	2989	45	254	299	100	1972	29	167	5.57
	B	2422	169	133	302	87	1440	50	253	10.44
	C	1158	808	..	808	44	227	27	110	9.50
16. West Bengal	A	1974	4	71	75	75	985	88	363	18.37
	B	738	9	19	28	28	679	91	339	45.93
	C	3149	983	..	983	120	6276	149	553	17.57
17. Chandigarh	A	233	..	10	10	12*	68	6	22	9.44
18. Delhi	B	302	2	10	12	4	12	1	2	0.66
	C	3288	1989	..	1989	132	2959	160	756	22.99

*The discrepancy relating to total number of slums and number of sample slums remains unexplained.

City Groups : (A) Cities of Shillong, Pondicherry and Class I Cities having 1971 Census Population 1 lakh or more but less than 3 lakhs;

(B) Cities having 1971 Census population three lakhs or more but less than one million; and

(C) Cities having 1971 Census population 1 million or more.

2. (a) Only the City Proper and not the urban agglomeration has been considered.

(b) Class I Cities of Srinagar and Imphal have no slums.

3. In the case of one million plus cities only declared slums while in other Class I Cities (with population of less than one million) both declared and undeclared slums have been covered. The figures are not additive and strictly comparable.

Source : NSSO, SARVEKSHANA, Vol III, No. 4, April, 1980.

TABLE 2.6
DISTRIBUTION OF SLUM POPULATION ACCORDING TO SIZE CLASSES
A COMPARISON OF SOURCES

Size classes of cities/towns	Total urban population 1981 Census*	Percentage of population in slums		
		NBO (1981) % of 1981 Population	Sarvekshana (1976-77) % of 1971 Population	TCPO (year not available) % of 1981 population
1	2	3	4	5
Less than one lakh	63,638	10.66	..	..
1 lakh—3 lakhs	23,462	18.12	13.48	..
3 lakhs—1 million	30,269	19.56	18.00	..
1 million plus	42,024	30.78	16.95	30.32
All Classes	1,59,393	18.75	..	..

Notes : Year within bracket relates to the year of the estimate.

- *(a) Quoted from the Hand Book No. 3 of Housing Statistics 1981, National Buildings Organisation.
- (b) Estimates of Sarvekshana are based on a Nation-wide Sample Survey on Economic condition of slum dwellers in Class I cities, NSS 31st Round (July 1976—June 1977) Vol. III, No. 4, April, 1980.
- (c) TCPO (Town and Country Planning Organisation, Govt. of India) estimates are based on the figures supplied by the State Govts. for slums population living in "Identified Slums" only. Figures for Delhi and Madras have been taken from sources other than the State Govts. namely DDA's Seminar Paper on 'Shelters—1981' and "Socio-Economic Survey of Madras Slums—1975" respectively. In Delhi, the slum population constitutes as follows:—

(a) Squatter settlements	4.09 Lakhs
(b) Unauthorised colonies	9.02 Lakhs
(c) Traditional areas plus urban villages	17.24 Lakhs
TOTAL	30.35 Lakhs

TABLE 2.7
ESTIMATES OF IDENTIFIED SLUM POPULATION IN SELECTED STATES IN INDIA (TCPO)
 (Population in '000)

Name of the State	Towns and Urban Population in the State		Towns where slum population has been identified		% of Population of identified Towns to total Urban Population in the State	Total Identified Slum Pop. in the State	% of slum Pop. to pop. of identified Towns in the State
	No. of Towns	Urban Population 1981 Census	No. of Towns	Population 1981 Census			
1	2	3	4	5	6	7	8
Andhra Pradesh	234	12458	87	8220	65.98	2858	34.77
Assam (a)	71	1326	24	693	52.26	124	17.90
Bihar	179	8699	15	3643	41.87	1337	36.70
Gujarat	220	10556	40	6832	64.72	1107	16.20
Haryana	77	2822	28	1545	54.75	227	14.69
Karnataka	250	10711	18	5484	51.19	509	9.28
Kerala	85	4771	24	1499	31.41	109	7.27
Maharashtra	276	21967	18	14344	65.29	4264	29.70
Orissa	103	3106	2	404	13.00	123	30.43
Punjab	134	4620	101	4193	90.75	1160	27.80
Rajasthan	195	7140	15	3569	49.98	839	23.50
Tamil Nadu	245	15928	N.A.	..	..	2676	16.80(b)
Uttar Pradesh	659	19973	12	6682	33.45	2189	32.76
West Bengal	130	14433	34	8165	56.57	3025	37.04
TOTAL	2519	108149	384	65273	60.35	17871(c)	27.38

Notes : 1. (a) Figures for towns/population relate to 1971 Census.

(b) Percentage relate to the total 1981 urban population in the State.

(c) Total does not include slum population of Tamil Nadu.

2. Identified slum population refers to slums identified in towns covered under the "Scheme for Environmental Improvement of Slum" under the 20-Point Programme.

3. Year of estimates of slum population in the States not available.

4. In West Bengal slum population estimates are for CMD towns.

Source : Town and Country Planning Organisation, Ministry of Works and Housing, Economic, Social Studies and Planning Division, February, 1983.

TABLE 2.8

PERCENTAGE OF SLUM POPULATION IN SELECTED STATES (COMPARATIVE STATEMENT:NSSO AND TCPO)

(Population in '000)

State/Union Territory	Sarvekshana Estimate*						TCPO Estimate**	
	1—3 Lakhs		3 Lakhs—1 Million		1 Million plus		1981 Census total urban population	% living in slums
	1971 Census total Pop. of Cities	% living in slums	1971 Census total Pop. of Cities	% living in slums	1971 Census total Pop. of Cities	% living in slums		
1	2	3	4	5	6	7	8	9
Andhra Pradesh	1536	20.96	672	49.70	1607	14.93	12458	34.77
Assam	146	3.42	..	..	..	..	1326	17.90
Bihar	989	5.56	832	8.64	..	..	8699	36.70
Gujarat	549	11.65	1240	17.98	1592	2.64	10556	16.20
Haryana	227	3.96	..	..	..	..	2822	14.69
Jammu & Kashmir	158	9.49	..	..	..	..	..	..
Karnataka	956	11.19	735	6.14	1541	10.84	10711	9.28
Kerala	284	7.04	1183	8.62	..	..	4771	7.27
Madhya Pradesh	941	14.34	1714	11.02	..	..	..	..
Maharashtra	2083	28.76	2121	31.30	5971	11.13	21967	29.70
Orissa	554	16.61	..	..	..	..	3106	30.45
Punjab	447	3.80	836	26.42	..	..	4620	27.80
Rajasthan	927	7.01	933	11.03	..	..	7140	23.50
Tamil Nadu	1469	10.62	1522	13.28	2469	40.09	15928	16.80†
Uttar Pradesh	2989	5.57	2422	10.44	1158	9.50	19973	32.76
West Bengal@	1974	18.37	738	45.93	3149	17.57	14433	37.04
Chandigarh	233	9.44	..	..	..	..	..	..
Delhi	..	..	302	0.66	3288	22.99	..	..

* Relate to declared and undeclared slums in Class I Cities (for details please refer to Table No. 3).

** Relate to slum population of towns where slum population has been identified under EIS scheme.

†Percentage relate to total population.

@Relate to slum population of town within CMD.

Source: Sarvakshana, Vol. III, No. 4, April, 1980, Town and Country Planning Organisation, Ministry of Works & Housing, 1983.

TABLE 2.9

ESTIMATES OF SLUM POPULATION FROM DIFFERENT SOURCES FOR METROPOLITAN CITIES
IN INDIA

(Population in '000)

Metropolitan City	1981 Census Population	Estimates of Population in Slums				Remarks	Source of the Estimate
		Year of Esti- mate	Popula- tion of Esti- mate year	Slum Popu- lation	% of Esti- mate year popu- lation		(Refer note for details of the Source)
1	2	3	4	5	6	7	8
Calcutta	9166(UA)	1956	..	..	25.00	Bustee Population (Calcutta MC)	Sample Survey: Quoted in EFN Ribeiro's Paper, 1981 (Source 1)
		1963	..	..	38.20	Do.	Slum survey, Calcutta Improvement Trust: Quoted in EFN Ribeiro's Paper, 1981 (Source 1)
		1974	3190	1435	45.00	Registered + un- registered bustees, Calcutta City.	EFN Ribeiro's Paper, 1981 (Source 1)
		1976	3149* (1971 Census)	553	17.56	*City proper	Sarvekshana, 1980 (Source-2)
		1976	3220	1350	41.92	Calcutta MC	CMDA—The Bustee Improvement Programme, 1981 (Source 3)
		1976	..	2650	..	Bustee slum Pop. (CMD towns)	CMDA-1981 (Source 3)
		1976	3220	1655	51.34	Calcutta MC	TCPO-(Source 5)
		1981	9166	3240	35.35	Calcutta UA	NBO-1981 (Source 4)
		N.A.	8165*	3025	37.04	CMD towns *1981 Census	TCPO-(Source 5)
Greater Bombay	8227 (M. Corp.)	1976	7947*	3247	41.00	*(Source-6)	Housing conditions in Bombay Region, 1976 (Source 6)
		1976	7947	3176	39.96	Total Pop. extra- polated from 1971-76 Pop. using area Specific Growth Rates.	High Power Steering Group, 1981 (Source 7)
		1976	7947	3169	39.88	..	Non-conventional Approaches, 1981 (Source 8)

1	2	3	4	5	6	7	8
		1976	7947	2831	35.62		Slum Census, 1976 (Source 9)
		1976	7947	2600*	32.72	*On the basis of 4.5 persons H.H. Size of Sarvekshana.	Municipal Corpn. of Gr. Bombay, 1976. (Source 10) TCPO (Source 5) High Power Steering Group, 1981 (Source 7)
		1980	8227*	4113	50.00	*1981 Census Population	Housing conditions in Bombay Region, 1976 (Source 6) High Power Steering Group, 1981 (Source 7) NBO, 1981 (Source 4)
		1981	8227	3700	45.00		
		1981	8227	3151	38.30		
Delhi	5714(UA)	1976-77	3288+	756	22.99	+1971 Census Population.	Sarvekshana, 1980 (Source 2)
		1977	5290*	1320	25.00	*Delhi Admn. Estimate.	Min. of Works & Housing (Source 11)
		1981	5714	1725	30.19	UA	NBO, 1981 (Source-4)
		1981	5714	3025@	53.00	@ Break up (a) Squatter Settlement—409 (b) Unauthorised Colonies—902 (c) Traditional areas + urbanised villages—1724	DDA Seminar Paper 'Shelters', 1982 (Source 12)
		1981	5714	2500	47.00	(a) Squatters Settle- ments—800 (b) Slum Area—1600 (c) Urbanised villages—100	Hindustan Times dated May 1, 1983. (Source 13)
Madras	4277(UA)	1961	1729*	412	23.80	*City Population.	Socio-Economic Survey of Madras Slums, 1975 (Source 14)
		1971	2469*	737	29.85	-do-	-do-
		1976-77	2469*	990	40.09	*1971 Census Population.	Sarvekshana, 1980 (Source-2)
		1981	3266	1000	30.62	Madras MC	EFN Rebeiro's Paper, 1981 (Source 1)
		1981	4277	1363	31.87	Madras UA	NBO, 1981 (Source 4)
Bangalore	2914(UA)	1972	1616	292	18.06	City proper	EFN Rebeiro's Paper, 1981 (Source-1)
		1976	1957	315	16.09	-do-	TCPO and Min. of W&H (Source 5 and 11)
		1976-77	1541*	167	10.84	*1971 Census Pop.	Sarvekshana, 1980 (Source 2)
		1981	2914	292	10.02	Bangalore UA	NBO, 1981 (Source 4)

1	2	3	4	5	6	7	8
Hyderabad	2528(UA)	1972	1607*	300	18.67	*1971 Census Pop.	Municipal Corp. of Hyderabad, 1982-83 (Source 15)
		1976-77	1607	240	14.90	Hyderabad City	Sarvekshana (Source 2)
		1977	1999	400	20.00	-do-	Municipal Corp. of Hyderabad, 1982-83 (Source 16)
		1979	2148	412	19.18	-do	Municipal Corp. of Hyderabad, 1982-83 (Source 15)
		1979	2148	500	23.27	-do-	High Power Committee (Source 17)
		1979	2148	450	20.95	-do-	M/O Works & Housing (Source 11)
		1981	2528	538	21.28	Hyderabad UA	NBO 1981 (Source 4)
Ahmedabad	2515(UA)	1961	1150	87	7.56	Ahmedabad MC	Slums in Ahmedabad, 1977-80 (Source 18)
		1972-73	1588	272	17.12	Ahmedabad UA	Slums in Gujarat, 1973-74 (Source 19)
		1976	1892	415	22.00		Census of Slums in Ahmedabad, 1976 (Source 20)
		1976	1892	*507	27.00	+In 1976 there were 92,000 persons living in chawls.	-do-
		1976-77	1592+	42	2.64	+1971 Census Population	Sarvekshana, 1980 (Source 2)
		1981	2515	658	26.16	Ahmedabad UA	NBO, 1981 (Source 4)
Kanpur	1688(UA)	N.A.	..	415	..	Ahmedabad MC	TCPO (Source 5)
		1976	1334	560	41.98	Kanpur MC	EFN Ribeiro's Paper 1981 (Source 1)
		1976-77	1158+	109	9.48	+1971 Census Pop. (City proper)	Sarvekshana, 1980 (Source 2)
		1981	1688	681	40.31	Kanpur UA	NBO, 1981 (Source 4)
Pune	1685(UA)	N.A.	..	614	..	Kanpur MC	TCPO (Source 5)
		1971	856	346	40.00	..	EFN Ribeiro's Paper, 1981 (Source-1)
		1981	1685	298	17.69	Pune UA	NBO, 1981 (Source 4)
Nagpur	1298(UA)	N.A.	..	274	..	Pune MC	TCPO (Source 5)
		1981	1298	440	33.90	Nagpur UA	NBO, 1981 (Source 4)
		1981	1215	304	25.00	Nagpur MC	EFN Ribeiro's Paper, 1981 (Source 1)
		N.A.	..	416	..	-do-	TCPO (Source 5)

1	2	3	4	5	6	7	8
Lucknow	1007(UA)	1981	1007	391	38.83	Lucknow UA	NBO, 1981 (Source 4)
		N.A.	..	285	..	Lucknow MC	TCPO (Source 5)
Jaipur	1005(UA)	1981	1005	157	15.62	Jaipur UA	NBO, 1981 (Source 4)
		N.A.	..	296	..	Jaipur City	TCPO (Source-5)

Note on Sources used for Estimates on Slum Population

- SOURCE :
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 18. *SPIESR : Slums in Ahmedabad*—A study in Migration, Poverty and Housing, NBO sponsored, SPIESR, Ahmedabad, 1977-80.
 19. *ORG : Slums in Gujarat*—A Study of Seven Urban Centres, ORG, Baroda, 1973-74.
 20. *AMC : Census of Slums in Ahmedabad*—Report of the Census of Slums in Ahmedabad—1976, Ahmedabad Municipal Corporation, Ahmedabad.

TABLE 2.10

TASK FORCE ESTIMATES OF SLUM POPULATION BY SIZE CLASS, 1981—ALL INDIA

(Population in '000)

Population Size Class of Cities/Towns	1981 Urban Population		Estimated Slum Population				Percentage of Slum Population to the total population in each Size Class	
	Population	%	Low Estimate		High Estimate		Low Estimate	High Estimate
			Population	%	Population	%		
	1	2	3	4	5	6	7	8	9
Less than 1 Lakh	60326	38.86	9075	27.99	11902	29.12	15.04	19.72
1 Lakh—1 Million	51557	33.21	9276	28.61	12741	31.17	17.91	24.59
1 Million plus	42024	27.07	13865	42.77	15967	39.06	33.00	38.00
All Classes	155233 *	100.00	32414	100.00	40875	100.00	20.88	26.33

Notes : For the State of Assam 1971 Census Urban Population has been taken as the base.

*The total Urban Population of all size classes includes 13.26 Lakhs 1971 Urban Population of Assam on the basis of which Slum Population in the State has been worked out.

Assam is not included in the size class estimates. Hence the discrepancy in the total.

Source : Task Force Estimates.

TABLE 2.11

TASK FORCE ESTIMATES OF STATEWISE DISTRIBUTION OF SLUM POPULATION, 1981

(Population in '000)

State/Union Territories	Total Urban Pop. 1981 Census	Below 1 Lakh			1 Lakh—1 Million			1 Million & More			Total Slum Population 1981	
		Pop. 1981 Census	Low Estt. (%)	High Estt. (%)	Pop. 1981 Census	Low Estt. (%)	High Estt. (%)	Pop. 1981 Census	Low Estt. (%)	High Estt. (%)	Low Estt. (%)	High Estt. (%)
1	2	3	4	5	6	7	8	9	10	11	12	13
Andhra Pradesh	12458	5770	1731 (30)	2020 (35)	4160	1248 (30)	1456 (35)	2528	506 (20)	632 (25)	3485 (28)	4108 (33)
Assam	1326	—	—	—	—	—	—	—	—	—	198 (15)	265 (20)
Bihar	8699	3991	1396 (35)	1596 (40)	4708	1649 (35)	1883 (40)	—	—	—	3045 (35)	3479 (40)
Gujarat	10556	4442	666 (15)	888 (20)	3599	575 (16)	718 (20)	2515	503 (20)	629 (25)	1744 (16)	2235 (21)
Haryana	2822	1224	61 (5)	122 (10)	1598	320 (20)	399 (25)	—	—	—	381 (13)	521 (18)
Karnataka	10711	4434	443 (10)	665 (15)	3363	336 (10)	366 (10)	2914	583 (20)	728 (25)	1362 (13)	1729 (16)
Kerala	4770	2235	112 (5)	223 (10)	2535	253 (10)	253 (10)	—	—	—	365 (8)	476 (10)
Madhya Pradesh	10589	5629	844 (15)	1126 (20)	4960	496 (10)	744 (15)	—	—	—	1340 (13)	1870 (18)
Maharashtra	21967	5439	1088 (20)	1360 (25)	5318	1595 (30)	1861 (35)	11210	3933 (35)	4493 (40)	6616 (30)	7714 (35)
Orissa	3106	1813	271 (15)	362 (20)	1293	193 (15)	323 (25)	—	—	—	464 (15)	685 (22)
Punjab	4620	2476	495 (20)	619 (25)	2144	536 (25)	643 (30)	—	—	—	1031 (22)	1262 (27)

1	2	3	4	5	6	7	8	9	10	11	12	13
Rajasthan	7140	3818	381 (10)	381 (10)	2317	231 (10)	462 (20)	1005	251 (25)	302 (30)	863 (12)	1145 (16)
Tamil Nadu	15928	6023	602 (10)	903 (15)	5628	563 (10)	1126 (20)	4277	1283 (30)	1497 (35)	2448 (15)	3526 (22)
Uttar Pradesh	19973	9690	484 (5)	969 (10)	7588	758 (10)	1897 (25)	2695	1027 (38)	1163 (44)	2269 (11)	4029 (20)
West Bengal	14433	3342	501 (15)	668 (20)	1925	481 (25)	577 (30)	9166	3208 (35)	3666 (40)	4190 (29)	4911 (34)
Delhi	5714	—	—	—	—	—	—	5714	2571 (45)	2857 (50)	2571 (45)	2857 (50)
Chandigarh	421	—	—	—	421	42 (10)	63 (15)	—	—	—	42 (10)	63 (15)
TOTAL :	155233	60326	9075	11902	51557	9276	12741	42024	13865	15967	32414	40875
	%	39	(15)	(20)	33	(18)	(25)	27	(33)	(38)	(20)	(26)
			28	29	—	29	31	—	43	39		

- Notes :
- (1) The total Urban Population also includes 13.26 Lakhs of 1971 Census urban population of the State of Assam whose breakup in different size class has not been given. Hence the difference in total urban and slum population when added State-wise and size class of Cities/Towns-wise.
 - (2) Percentages of slum population given in brackets are from total urban population in each size class of Cities/Towns and at Country level from total urban population of selected States/Union Territories.
 - (3) Percentages of slum population given without brackets relate to total slum population (low and high estimates) of selected States/Union Territories.
 - (4) Estt. Stands for Estimate.

Source : Task Force Estimates.

TABLE 2.12

TASK FORCE ESTIMATES OF SLUM POPULATION IN MILLION PLUS CITIES.,1981.

(Population in '000)

Name of the City	1981 Census Population	Population living in slums on the basis of assumed percentage			
		Low Estimate		High Estimate	
		Assumed % 1981 Population	Population	Assumed % 1981 Population	Population
1	2	3	4	5	6
Calcutta	9166	35	3208	40	3666
Greater Bombay	8227	40	3291	45	3702
Delhi	5714	45	2571	50	2857
Madras	4277	30	1283	35	1497
Bangalore	2914	20	583	25	728
Hyderabad	2528	20	506	25	632
Ahmedabad	2515	20	503	25	629
Kanpur	1688	40	675	45	760
Pune	1685	15	253	20	337
Nagpur	1298	30	389	35	454
Lucknow	1007	35	352	40	403
Jaipur	1005	25	251	30	302
TOTAL :	42024	33	13865	38	15967

Note : All City Populations are for the Urban Agglomeration.

TABLE 2.13

DENSITY OF POPULATION AND AVERAGE HOUSEHOLD SIZE IN SLUM AREAS

City Group	Average No. of Persons	
	Per acre of land	Per Household
<i>Cities having 1971 Census Population</i>		
(1) One lakh or more but less than 3 Lakh	151	4.8
(2) 3 Lakh or more but less than One Million	111	4.8
(3) One Million or more (declared slums only) ;		
(a) All Cities	97	4.6
(b) Hyderabad	210	5.1
(c) Ahmedabad	73	6.1
(d) Bangalore	48	5.6
(e) Bombay	40	4.5
(f) Madras	190	5.0
(g) Kanpur	484	4.0
(h) Calcutta	88	3.7
(i) Delhi	255	4.7

Source : NSSO, SARVEKSHANA, VOL. III, APRIL, 1980.

TABLE 2.14
SOME CHARACTERISTICS OF SLUM DWELLERS, 1976-77 (31st NSS ROUND)

Characteristics	A	B	C
% house owned	54.12	50.74	42.47
House neither owned nor rented	8.61	6.20	8.88
Rented House	37.27	43.06	48.65
Average Monthly rent (Rs.)	15.11	18.22	17.92
<i>Wall</i>			
% Katcha	59.38	54.76	33.18
% Semi Pucca	8.95	7.94	17.46
% Pucca	31.67	37.30	49.36
<i>Roof</i>			
% Katcha	37.51	30.36	23.55
% Semi Pucca	52.21	52.59	52.23
% Pucca	10.28	17.05	22.22
<i>Latrines</i>			
% Separate for households (Sanitary)	2.55	2.32	5.18
% Separate for households (Others)	7.49	6.46	3.02
% No Separate Latrine	89.96	91.22	91.80
<i>Ownership with Private Sector</i>			
% Area	50.99	73.07	35.00
% Households	50.74	60.58	57.80
% Persons	50.94	59.54	56.26

Cities A : One lakh to 3 lakhs Population.

B : 3 lakhs to 10 lakhs Population.

C : One Million Population & more.

Source: NSSO: SARVEKSHANA, VOL. III, APRIL, 1980.

TABLE 2.15

PERCENTAGE DISTRIBUTION OF SLUM POPULATION BY TYPE OF HOUSING FACILITY,
1976-77 (NSSO)

Type of facility provided in slum areas	Percentage of slum Population having the facilities in City group		
	Population 1—3 Lakhs	Population 3—10 Lakhs	1 Million & above Population
1. Electricity	82.1	85.4	81.1
2. Approach road other than Kaccha to reach Slum area.	78.1	87.1	91.6
3. Slum area not water logged during monsoon	53.7	51.4	65.3
4. Tap or tubewell as source of drinking water	79.9	79.2	93.5
5. Latrine facility	44.8	51.5	81.9
6. Tap or tubewell and latrine facility	40.8	47.3	81.0
7. Underground Sewerage System	3.9	10.5	44.8
8. Garbage disposal system	75.7	84.7	89.9
9. With facility (6) and (7)	3.4	9.9	44.3
10. With facilities (6) and (8)	33.3	43.3	78.0
11. With facilities (6), (7) and (8)	2.6	9.7	42.8
12. Minimum Needs Programme	15.7	26.4	59.3
13. Slum Clearance Programme	14.9	25.8	46.9
14. Both (12) and (13)	8.6	18.8	28.4
15. Some development made in slum areas during last 5 years	53.9	63.9	56.2

Source : NSSO, SARVEKSHANA, VOL. III, APRIL, 1980.

III. UNIVERSAL SLUM IMPROVEMENT BY THE YEAR 2000 : PROBLEMS AND PROSPECTS

A Brief History

3.1 The first attempt at tackling the problems related to the existence of slums was the introduction of the slum clearance programme. This involved demolition and redevelopment or replacement of unfit housing which was done under the Slum Clearance/Improvement Scheme 1956. Under this scheme the Government was empowered to compulsorily acquire such areas for the purpose of redevelopment. Simultaneously the scheme also emphasized the rehabilitation of slum dwellers with minimum dislocation of work place and residence. Keeping in view the low paying capacity of slum dwellers, the scheme offered a package of minimum standards of environmental hygiene and essential services rather than construction of any elaborate structures. The scheme also laid down minimum standards for redevelopment, plot sizes and tenements and offered rehousing facilities to the poor and incentives to higher income groups to go for their own housing.

3.2 With the introduction of the scheme of Environmental Improvement of Slums in 1972 the emphasis of governmental efforts was shifted in the direction of environmental improvement of slums through the provision of certain minimum facilities like water taps and community facilities, storm water drains, sewers, latrines, paved roads/lanes and street lighting. A number of factors were responsible to bring about such a change in governmental policy; these included (a) widespread resentment from the people against large scale demolition of established communities under the Slum Clearance Programme; (b) the large amount of funds needed for such a programme compared with the availability of limited resources; (c) fast deterioration of the "Fit" structures; (d) the change in emphasis was expected to induce owners of slums to undertake renovation of their properties; and (e) it was expected that a large number of slum dwellers could be benefited within the given resources, if improvement of slums was resorted to. With the shift in emphasis in government policy explicit recognition was given to the fact that neighbourhood environment constitutes an important housing externality. Accordingly, the Environmental Improvement of Slums (EIS) Scheme vested power with the local authorities to prepare and execute schemes of road/street widening and improvement, landscaping and street lighting etc.

3.3 Under the Sixth Five Year Plan, a sum of Rs. 151 crores has been allocated for the EIS Scheme. A detailed discussion of the scheme is given in the forthcoming paras.

3.4 The problem of squatter settlements, unlike the slum problem, is not that wide spread; it is confined mainly to the big cities. The policy towards squatters' relocation was that of removing squatter settlements and their relocation at earmarked sites. But of late, this policy has been replaced by one making provision for the regularization of squatters' colonies through the provision of common public services under programmes such as the sites and services programme. There is also a move to consider the possibilities of granting tenurial right to slum dwellers so as to encourage them to undertake the improvement in their structures at their own cost. On the other hand measures to prevent squatting on government land are also being considered.

Slum Clearance and Rehousing—Past Efforts

3.5 The earliest effort for the betterment of slum dwellers can be traced to the year 1952 when the Scheme for Subsidised Industrial Housing was introduced. Although the scheme did pave the way for a partial rehousing of slum dwellers, it could not make much headway because more than 50 per cent of the slum dwellers remained outside the purview of the scheme as they were not industrial workers. This led to the formulation of the Slum Clearance Scheme in 1956; this scheme was devised practically on the same lines as subsidised industrial housing with some variation in the quantum of Central Subsidy which was 37½ per cent in the new scheme instead of 50 per cent earlier, the remaining 12 per cent was to be found by the State Governments. The main feature of the Slum Clearance Scheme was the provision of two types of accommodation (a) houses/tenements with a minimum covered area of 232 sq. ft., (b) open developed plots in planned layout 1000—1200 sq.ft. in size. Both the accommodations included amenities such as latrine, kitchen and bath. The scheme also provided for night shelters and dormitories.

3.6 During the Fourth Plan the Scheme was transferred to the State Sector—but it suffered a set back owing to the inadequate allocation of funds. The open plot system, with its emphasis on environmental services, did not find much acceptance in the early stages of the Scheme particularly in Madras and Delhi. The Delhi Development Authority as a result lowered the plot size from 80 sq. yds. to 25 sq. yds. which formed the basis for the rehousing of a large number of squatters in Delhi. Properly regulated and consciously pursued this approach held considerable promise of rehousing for the urban poor.

Slum Improvement

3.7 The prospects of slum clearance and rehousing being bleak in the past, the original Slum Clearance Scheme was extended to cover slum improvement following the recommendation of the Sixth Housing Ministers' Conference in 1962. It was to be financed on the same pattern of loans and subsidies as applicable to the rehousing operation. The financial assistance in the present scheme was restricted to the following:

- (a) slum areas on public or requisitioned land; and
- (b) slum areas where the majority of dwellers lived in the dwellings owned by them.

The scheme also provided loans out of the funds available under the scheme for the improvement of slums on private land by the landlords or by the local bodies who were to recover the cost of such improvement from the landlords or for acquisition or requisition of such properties. In the absence of any means to recover the cost of improvement, not only did the progress of the scheme suffer but the problem became so overwhelming and resources so limited that the work of wholesale slum clearance had to be abandoned. In 1969, it was decided to confine the scheme to slum improvement only. The Planning Commission reiterated this approach in its guidelines circulated for the formulation of the Annual Plan Programme in 1970-71. A further step was the allocation of 100 per cent central grant for the improvement of bus-tees in Calcutta. With this came into being the Central Sector Scheme (outside the State Plan) of Environmental Improvement of Slum Areas which envisaged 100 percent grant to begin with. The details of this scheme are discussed below.

Scheme of Environmental Improvement of Slums

3.8 The Scheme for Environmental Improvement of Slums was introduced in April, 1972 as a centrally sponsored scheme in order to provide financial assistance to State Governments

for undertaking the work of environmental improvement in the existing slums which have not been earmarked for clearance for a minimum period of 10 years. Originally, the scheme was to cover only eleven big cities, but subsequently, in 1973-74, another nine cities were added to the list so as to have a representation of at least one city each from all the major States and Union territories in the country.¹ Later, in April 1974, in pursuance of the decision of the National Development Council, the scheme was transferred to the State sector as a part of the Minimum Needs Programme. During the Fifth Five Year Plan its scope was further extended to cover all cities in the country with a population of three lakhs or more or at least one city/town in those States which did not have any city of this size.

3.9 Since April, 1979 the scheme has been extended to all urban areas in the country irrespective of their population size. At present, it forms an important constituent of the Prime Minister's 20-Point Programme under Point 10(a) and is being monitored by the Central Government, Ministry of Works and Housing.

3.10 The scheme aims at providing certain minimum amenities in urban slums, removing the unhygienic conditions and effecting the environmental improvement of these areas. The amenities provided are, by definition, to be common and temporary in nature (considering the temporary nature of the slums).

Scale of Improvement

3.11 The improvement carried out under the scheme relates mainly to the provision of the following:—

- (a) Water Supply including drinking water taps
- (b) Sewers
- (c) Storm water drains
- (d) Community latrines and baths; and
- (e) Street lighting, widening and paving of lanes.

Any other item of improvement can be considered on its merits.

3.12 The standards laid down in respect of facilities to be provided are as follows:—

- (1) Latrines one seat for 20 to 50 persons.
- (2) Water Taps: 1 Tap for 150 persons.
- (3) Sewer Open drains with normal outflow avoiding accumulation of stagnant waste water.
- (4) Storm Water Drain: Quick drain out of Storm Water.
- (5) Community Baths: One bathroom for 20—50 persons.
- (6) Widening and Paving of existing lanes: To make room for easy flow of pedestrians, bicycles and handcarts on paved paths to avoid mud and splash.
- (7) Street lighting: One Pole at 30 metres apart.

Per Capita Cost Ceiling

3.13 The per capita cost ceiling for the above mentioned facilities has been fixed at Rs. 150. In addition to the above items of improvement, the scheme also provides for funds for

i. To start with, the scheme was introduced in the following cities/towns :—

- (1) Calcutta, (2) Bombay, (3) Delhi, (4) Madras, (5) Hyderabad, (6) Ahmedabad, (7) Kanpur,
- (8) Bangalore, (9) Lucknow, (10) Poona, (11) Nagpur, (12) Indore, (13) Jaipur, (14) Srinagar,
- (15) Patna, (16) Cochin, (17) Ludhiana, (18) Cuttack, (19) Gauhati, (20) Rohtak.

acquisition of land in slum areas provided such acquisition is deemed essential for carrying out works of improvement in slums. The scheme, however, lays down that funds required for rehousing the slum dwellers, dislocated as a result of land acquisition, at alternate sites, will have to be raised by the concerned State Government from its own resources.

3.14 The expenditure on setting up the above mentioned facilities in accordance with the norms laid down in the scheme are to be met entirely by the Central Government under the present scheme. The State Government concerned is required to meet from its own resources the expenditure on departmental supervision and temporary housing of slum dwellers. The development works¹ in slums other than those listed above and the expenditure on maintenance of facilities provided under the scheme are also to be met entirely by the State Government concerned. Further, it has been stipulated that of the total central assistance more or less two-thirds would be utilised for setting up environmental improvement facilities (infra-structure) and the balance one-third would be utilised for acquiring land etc. for setting up the super-structure. The total budget amount under the present scheme is apportioned among the various cities/towns mainly on the basis of their population.

Notification of Slum Areas

3.15 For the purpose of the scheme a "Slum Area" has been defined as an area notified as "slum" under the Slum Areas Act of the respective State/Union Territory. It is, therefore, necessary that there are statutory provisions in each State and Union Territory in the form of an Act defining a criteria under which an area can be notified as slum area. In the event no such Act is in existence in a State or Union Territory steps were to be taken urgently to initiate the enactment of such an Act in this regard.

Scope of the Scheme

3.16 While making selection of slum areas for the environmental improvement programme, the scheme stipulates that preference should be given to slums located on lands belonging to public agencies such as State Governments, Municipalities, etc. Improvement of slums located on private land can, however, be undertaken provided the State Government concerned enacts suitable legislation to the effect that the landlord of the private land would not be entitled for higher rentals from the slum dwellers in consideration of such improvement effected under the programme and would not also claim higher compensation in the event of acquisition of the said land by the Government. In case, however, any existing legislation such as the "Rent Control Act" or the "Slum Areas Act" of a State Government already ensures that the landlord could neither increase the rent nor claim higher compensation for his property in consideration of the improvement effected, there may be no need to enact fresh legislation on this account. It would, however, be necessary to declare the areas 'proposed' to be covered by improvements as "Slum Areas" within the definition of the "Slum Areas Act".

3.17 Improvement of slums where the plots and the houses are owned by the slum dwellers themselves may also be considered provided:—

- (a) the streets and pavements and other areas where it is desired to carry out works of improvement are the property of the local body or the government;
- (b) the economic conditions of the residents is such that they can be considered poorest class of the society;

1. State governments/local bodies have to provide dispensaries, primary schools and other community facilities from their own resources if such facilities are not available within a reasonable distance of the slum area covered under the programme.

- (c) improvements should have normally been made in slums located on public land before improvement in relation to (a) and (b) above could be undertaken.

3.18 In order to have a better cost effective utilisation of the funds only such slums were to be taken up for improvement, where water, electricity and sewer mains were available at least on their periphery.

3.19 Other things being equal, preference was to be given to areas which may have already been provided with part facilities. Additional efforts in such areas may be put up to bring up these areas to the required standard of improvement with the least expense of funds and time.

3.20 The concerned State/local governments were to bear the maintenance expenditure on the improvement work carried out under the scheme from sources other than allocations under this scheme.

Progress in Implementation

3.21 Ever since the Scheme of EIS came into being in 1972, its scope had constantly been extended to a larger number of cities and towns in the country in order to have a wider coverage of people. In 1978 the scheme became applicable to all the urban areas in the country irrespective of their population size. In 1982 it was included as an important component in the Prime Minister's 20-Point Programme. Prior to its inclusion in the 20-Point Programme, there was no systematic monitoring of the progress of the implementation of the scheme and the State Governments and the Union Territories were doing the feed back of the progress under the scheme, in their respective State, as a matter of routine, to the Central Ministry of Works and Housing. Now, under the 20-Point Programme the scheme is systematically monitored and a regular feed back of the data in respect of physical achievement of the targets and the expenditure incurred is undertaken by the various State Governments and the Union Territories as a matter of obligation on their part. The Central Ministry of Works and Housing, has been entrusted with the task of monitoring the scheme and is required to submit monthly and quarterly progress reports to the Planning Commission. The Ministry has framed comprehensive guidelines, outlining an over-all framework within which the State Governments and Union Territories are required to execute the scheme.

3.22 Before an assessment is made of the progress of implementation of the scheme a reference may be made to the Sixth Five Year Plan outlays and targets in respect of slum improvement in the country. According to the Sixth Plan document the problem of slums in the country has to be tackled over a period of 10 years. The Plan has made a provision of Rs. 151.45 crores and fixed a target of 10 million people to be covered under the Slum Improvement Scheme (E.I.S.). But according to the reports received from State Governments the total Sixth Plan outlay in respect of State and Union Territories is about Rs. 159.64 crores and the physical target has been fixed at 8.02 million persons. Further, the Plan has estimated that by the end of 1985, the slum population of the country would be of the order of 33.1 million. The Plan's estimate has been based on the assumption of the Working Group, set up earlier by the Planning Commission, that a fifth of the urban population in the country constitutes slum population. According to the Plan document about 6.8 million people have already been covered under the Slum Improvement Scheme (E.I.S.) since its inception upto 1979-80. Thus, according to the Plan Document, about 26.81 million slum dwellers would still need to be covered under the E.I.S. Scheme by 1985.

3.23 The assessment of the progress of the E.I.S. Scheme can be made for two periods i.e. period 1972-73 to 1979-80 (prior to the incorporation of the Scheme under the 20-Point

Programme) and period 1980—83 (the first three years of the Sixth Five Year Plan). Table 3.1 gives details of the progress of the scheme upto February, 1983, for the country as a whole following the Sixth Plan targets.

3.24 As of February, 1983, a total of about 11 million slum dwellers are reported to have been covered under the E.I.S. Scheme all over the country. Of this total, about 6.8 million people were covered during the period upto 1979-80 and the remaining 4.2 million people were covered during the period 1980—83. In the first two years after the scheme had come into operation i.e. 1972—1974, 50 per cent, of the total 6.8 million beneficiaries were covered whereas during 1980—83, the maximum coverage of people (about one fourth of the total 4.2 million beneficiaries) was said to have been achieved in the year 1980-81.

3.25 Table 3.2 which gives Statewise details of the physical achievement (number of persons covered) for the period 1980—83 indicates that by the end of February 1983 (for three years) 4.2 million persons were reported to have been covered under the scheme, constituting about 50 per cent of the total number of beneficiaries who were expected to be covered during the five years of the Sixth Plan.

3.26 Among States, Andhra Pradesh and Orissa have already achieved over 75 per cent of their Sixth Plan targets while States of West Bengal, Tamil Nadu, Bihar, Uttar Pradesh, Punjab and Gujarat have covered over 50 per cent of their respective target. The States of Assam, Manipur and Kerala have shown quite tardy progress, their coverage of beneficiaries being 10 per cent or below. The remaining States have achieved between 25 per cent to 50 per cent of their physical targets.

3.27 By the end of March 1983, about 6.8 million slum dwellers were reported to have been covered under the E.I.S. scheme in the different metropolitan cities alone. Of this total about 4.3 million were covered before the Sixth Five Year Plan and the remaining 2.5 million were benefited during the first three years of the Sixth Plan, which is a little more than one third of the total coverage since the inception of the scheme in 1972. Bombay and Calcutta account for about two-thirds of the total coverage.

Evaluation of the Scheme for Environmental Improvement of Slums

3.28 Of late, the scheme has come in for sharp criticism stemming mainly from its actual implementation. These criticisms are broad in nature and point mainly to the various lacunae both in the basic frame and execution of the scheme. These include:—

- (a) So far no systematic evaluation has been made of the salient features of the scheme and the extent to which it has achieved its basic goal even though it has been in existence for over a decade now.
- (b) The scheme stipulated the provision of certain minimum amenities which are basically of a temporary nature and have to be provided on a collective basis. Considering the temporary character of slum areas where these amenities are to be provided as also the cost constraint, the number of these amenities has been restricted to 5 items for which a per capita cost ceiling of Rs. 150 has been prescribed. It is not clear what the basis of the scale of the various amenities to be provided was, nor is it clear how the cost ceilings were fixed. The scheme also does not provide for a situation where a priority could be assigned to a particular amenity in the event of the inability of the concerned local authority to adhere to the total prescribed cost ceiling so as to ensure that all slums in the

city are provided with at least one amenity which is considered as the most critical of the five amenities.

- (c) There is no provision for a mechanism of detailed monitoring of the number of units provided of various amenities. The general emphasis being on spending the allocated amount and the number of beneficiaries is arrived at by dividing the total expenditure by Rs. 150, the allowable per capita expenditure. The conclusion is thereafter drawn that a certain number of slum dwellers have been benefited under the scheme.
- (d) The scheme does not provide any flexibility for variation in the rate of expenditure in accordance with the varying needs of slum areas, nor does it make provision for higher costs involved in slum improvement of those slums having peculiar geographical location. The programmes under the scheme, therefore, are carried out primarily as a construction or public works programme having no regard for the peculiar features of slum areas and specific treatment in terms of environmental amenities which each slum needs. As a result the very basic objective of improving the environment of slums is defeated.
- (e) Under the present arrangements (as stipulated in the E.I.S. Scheme) there is a complete absence of any financial participation of local bodies in the environmental improvement of slums. Prior to the introduction of the present scheme local bodies were required to undertake slum improvement out of their own resources. This practice has now ceased completely with the result that a fast deterioration of slum areas is taking place on account of lack of maintenance of various amenities by the local bodies.
- (f) The existing scale of amenities now needs revision as these have proved impracticable both in physical and financial terms. There is a need to reduce the norms and to raise the cost ceiling.

3.29 The various lacunae found in the actual implementation of the scheme relate to the diversion of funds and mixing them with the contributions from the local bodies. Unified programmes are formulated to provide service to areas other than the slum areas which need these services most. It has also been observed that the various services provided under the scheme have not been in conformity with the scale and type of services/amenities as stipulated in the scheme. Even high cost Community Centres, Baratghars, Bridges and Open Air Theatres have been provided from the funds earmarked for the E.I.S. scheme. Expenditure on these amenities are undesirable in view of the fact that large portions of slums are still to be provided with critical minimum amenities like potable water, storm water drains, street lighting etc.

3.30 In most of the States the monitoring of the schemes has been quite unsatisfactory. The achievements are reported on the basis of sanctioned funds rather than the actual achievement, the method adopted is to divide the allocated funds by the per capita cost of Rs. 150. This is incorrect especially when the services provided for are different from those stipulated in the guidelines of the Government of India.

Universal Slum Improvement by the year 2000

Projecting Slum Population

3.31 The progress of the E.I.S. Scheme has been reviewed in the foregoing section in the light of the Sixth Plan targets of physical achievement. In this section, an attempt is made to assess the backlog of slum dwellers who have to be provided the minimum basic facilities under

the E.I.S. scheme on the basis of Task Force estimates of slum population in the country as a whole and specifically in metropolitan cities.

3.32 About 11 million slum dwellers have been covered under the E.I.S. Scheme between the inception of the scheme in 1972 until February 1983. Of these, about 6.8 million persons were covered under the scheme before 1980. Since State-wise data for the years 1972—79 are not available for coverage of the scheme, it is not possible to estimate the backlog and the consequent magnitude of the future task by State. This is therefore done at the India level only. Information on coverage is, however, available for the metropolitan cities so metropolitan/non-metropolitan estimates have been made as well.

3.33 According to Task Force estimates, the slum population in the country in 1981 was between about 32 and 40 million people, constituting 20 to 25 per cent of the total urban population. On the basis of the 11 million people who are reported to have already been covered under the scheme, it is therefore estimated that 21 to 29 million existing slum dwellers have yet to be provided facilities under the slum improvement scheme. This constitutes 66 to 73 per cent of the total slum population in the country.

3.34 According to Task Force estimates the slum population in the 12 metropolitan cities was between about 14 to 16 million in 1981. The number of persons covered under the E.I.S. scheme was about 7 million of whom about 4.2 million had been covered by 1980. Hence, it is estimated that about 7 to 9 million persons living in slums in various metropolitan cities have yet to be provided with the necessary environmental facilities in the future. This constitutes about 51 to 57 per cent of the 1981 slum population in these cities, and about 33 to 31 per cent of the total slum population yet to be covered in the country.

3.35 Estimating slum population in the future implies that the pattern of urbanisation will remain much the same and that the formation of slums will continue apace. While it may be hoped that better planning of urban development will prevent the settlement of the poor in surroundings we are now familiar with as slums, it will still be the case that investments in basic infrastructure for the poor will have to be made continuously from the public exchequer. Thus the projections of urban slum population may be regarded as projections of people living in low income and environmentally deprived settlements, but which will be referred to as "slum population" in short.

3.36 The assessment of existing slum estimates revealed that the total slum population constitutes 20 to 25 per cent of the total urban population while this proportion is 33 to 38 per cent for the metropolitan cities. Table 3.4 gives projections on slum population for 1981—2000. The projections for total urban population and that in metropolitan cities have been done by Task Force on "Planning of Urban Development". It is assumed that the proportion of slum population of the incremental urban population will continue to be 20—25 per cent: the low and high estimates are given on this basis.

3.37 The projections reveal that the 1981 slum population will double by the year 2000. During the Seventh Plan period this population will increase by about 7—9 million, of which a large proportion will be in the metropolitan cities—which includes 8 to 9 cities¹ which are expected to be added to the existing 12 metropolitan cities.

3.38 The next sections make an assessment of the costs of slum improvement before arriving at estimates of investment requirements for basic infrastructure in low income settlements.

1. Coimbatore, Patna, Nagpur, Madurai, Indore, Varanasi, Agra, Jabalpur, Vadodara.

3.39 It is of interest to note that in a survey of municipalities made by the National Institute of Urban Affairs, an estimate of urban population not served by essential public services like water supply, sanitation, roads, street lighting, etc. also comes to about 25 per cent. This gives confidence in our estimate of 20—25 per cent. In view of this information and all the other information available it is *the Task Force conclusion that the current slum population is now probably nearer 25 per cent rather than 20 per cent.*

Cost of Slum Improvement

3.40 The improvement carried out under the E.I.S. Scheme mainly relates to the provision of water supply including water taps, sewerage, storm water drains, community baths and latrines, street lighting and widening and paving of lanes. Standards have been laid down in the scheme for effecting such improvement. The per capita cost ceiling for providing these facilities has been fixed at Rs. 150 which was Rs. 120 earlier. The expenditure on setting up these facilities in accordance with the norms laid down are to be met entirely by the Central Government. The State Governments are, however, required to undertake expenditure on developmental supervision, temporary housing and other development works (For a detailed discussion of the scheme refer to preceding paras).

3.41 The broad financial pattern of distribution of the per capita cost ceiling (PCCC) of Rs. 150 varies considerably in accordance with local conditions. In 1978, the Government of India laid down that only such slum areas may be included in the scheme where water, electricity and sewer mains are available at least in their periphery or where water supply could be provided through wells and septic tanks may be provided in the absence of sewerage facilities.

3.42 Of late, there has been a persistent demand for an upward revision of the PCCC from the State Governments who find this "Cost Ceiling" quite inadequate in view of the escalation in the cost of construction since 1978. Moreover, with the present per capita cost ceiling it has been found difficult to take care of the variation in expenditure because of the varying locations and nature of slums areas nor does it make room for higher cost involved in the improvement of slums resulting from a peculiar geographical location of slum areas. A number of States have already undertaken slum improvement projects on the basis of higher cost. These include, among others, West Bengal (Bustee Improvement Programme in Calcutta) and Andhra Pradesh (Urban Community Development Programme in Hyderabad).

3.43 An attempt has been made to compile data on the increased PCC from various sources in an attempt to arrive at an acceptable per capita cost ceiling so as to work out the implied cost of slum improvement over the fifteen year perspective. These sources are:

- (a) Escalated PCCC as adopted in the Bustee Improvement Programme in Calcutta.
- (b) Escalated PCCC as adopted by the Municipal Corporation of Hyderabad for the preparation of the Master Plans for Slums in the twin cities of Hyderabad and Secunderabad.
- (c) Escalated PCCC as suggested by the Local Authority of Khanna town in Punjab and approved by it.
- (d) Escalation in PCCC as suggested by Shri S. S. Tinaiker, Member of the Task Force, in his background paper for the Task Force.
- (e) Revised PCCC as suggested by the various State Governments as reported to the Town and Country Planning Organisation.

(f) Figures of PCCC as used in the Accelerated Slum Improvement Scheme and the Madras Urban Development Project in Tamil Nadu.

3.44 Unfortunately, details of the cost break up in these schemes are not provided in these forecasts. Nevertheless, the available details on PCCC from each source are given below:—

(i) *The Bustee Improvement Programme, Calcutta*

3.45 It was for the first time that the Slum Improvement Scheme under the Central Sector (with cent per cent financial assistance) was introduced in the Bustees of Calcutta under a massive multi-sectoral investment programme of Rs. 150 crores of which Rs. 10 crores were earmarked for the Bustee Improvement Programme. Based on the conditions prevailing in bustees, the CMDA identified the physical sub components of this programme and determined the improvement norms. It was *perhaps* on this basis that an analogous programme was drawn for other towns adopting similar improvement norms and per capita cost ceiling. The improvement norms prescribed by the Calcutta Metropolitan Development Authority were as follows:—

- (a) Conversion of existing service latrines into sanitary latrines/construction of new sanitary latrines either with Septic Tank with Chloronization chamber discharging into surface water drains in unsewered areas or connection to city sewer system where available, on the basis of one latrine for each hutment or every 25 persons, whichever is advantageous.
- (b) Potable water tap connection to individual huts for every 1000 persons with average water supply of 90 litres per capita.
- (c) Surface, drainage facilities through underground conduits connected to underground sewer system where available or open surface drains discharging into the nearest open drainage channels.
- (d) Paving of roads, streets and pathways within the bustees.
- (e) Security lighting of streets and pathways.
- (f) Miscellaneous facilities such as garbage dustbins, bathing facilities, etc. at suitable locations.

The average cost of improvement according to the above norms was initially fixed at Rs. 120 per capita, which was subsequently raised to Rs. 150 per capita. Now, the CMDA has revised this per capita cost to Rs. 350. The hike in the per capita cost is explained by not only increases in the prices of inputs but also enlargement of the scope resulting from integration of bustees service system for water supply and drainage and sanitation with city's trunk services system.

(ii) *The Urban Community Development Programme, Hyderabad*

3.46 The Municipal Corporation of Hyderabad has undertaken two projects for the development of slums in the twin cities of Hyderabad and Secunderabad. These relate to preparation of Master Plans for 457 slum areas in these cities. The programme is being operated under the "Habitat Housing Programme". Housing is being provided under the Urban Community Development programme wherein house site "Pattas" have been given to slum dwellers to motivate them to construct their own houses on a self-help basis. The amenities provided along with their per capita costs are given below. The total capita cost of these amenities comes to Rs. 400. This cost also includes the cost of Community Halls, which

according to the scale of amenities as laid down in the Scheme, are outside its purview. Even if the cost of a community hall is excluded from the total PCCC, it comes to Rs. 390, which again is quite high as compared to the existing PCCC as stipulated in the scheme.

Amenity	PCCC Rs.	% of the total PCCC
(1) Asphalt Road	120	30
(2) Sewer Lines	100	25
(3) Storm Water Drains	28	7
(4) Community Lavatory	52	13
(5) Water Supply	52	13
(6) Electricity	28	7
(7) Community Hall	20	5
Total	400	100

Source: Municipal Corporation of Hyderabad.

(iii) *Khanna Town, Punjab*

3.47 The following is the approved tender per capita cost of different amenities for slum improvement work in Khanna Town in Punjab. This is a revised estimate and relates to September, 1982.

<i>Amenity</i>	<i>PCCC</i> (Rs.)
(1) Water Supply	135
(2) Sewer Open Drains	65
(3) Community Baths and Latrines	40
(4) Widening and Paving of existing lanes	105
(5) Street Lighting	35
Total	380

Source:—Town & country planning organisation.

The basis of the above hike, though not stated, could be taken as general increase in prices of construction materials and labour cost.

(iv) *The Accelerated Slum Improvement Scheme of Tamil Nadu*

3.48 This scheme was launched in Tamil Nadu in 1977-78 for accelerated improvement of 683 slums in 106 municipalities and township committees. To start with, Madurai, Tiruchirappalli, Coimbatore and Madras have been selected for implementation of the scheme. The

scheme envisages the coverage of about 9 lakh persons. The scale of improvement adopted has been as follows:—

(i) Public conveniences	1 seat for 10 families
(ii) Water supply	1 public fountain for every 20 families (or bore well or tubewell).
(iii) Street Lighting	4 flood/tube lights per acre of slum area, housing 150/200 families.

The estimated cost of these improvements is about Rs. 250 per capita. In another scheme introduced under the Madras Urban Development Project, the cost of improvement has been fixed at about Rs. 260 per capita.

(v) *Task Force Background Paper*

3.49 An estimate made for the Task Force suggests that the revised per capita cost ceiling should be Rs. 275. This assumes that certain cost reduction in the PCC will be affected by adopting different alternatives for various amenities. A brief summary of these suggestions is made below:

Provision of toilets constitutes the single most important environmental amenity for the hygiene of slums, followed by drainage. The cost of one aqua privy seat based on actual rate of construction in Bombay is about Rs. 7000. On the assumption that it is used by 50 persons, the higher side of the scale, the PCC comes to Rs. 140, which is higher than the present PCC. If some cost reduction is effected by eliminating items like doors and roofs or by resorting to redesigned layouts the cost can be brought down to Rs. 5000. This cost can further be brought down to Rs. 4000, if the toilets are connected with a sewer line. Further savings can be effected by adopting the low cost sanitary latrines designed by the "Sulabh Shalchhalaya" Scheme in Bihar which is described in detail in Appendix I of this report.

3.50 In slums which are located in areas with low ground water or soft impervious strata, the NEERI design of rural latrines are the most suitable as it involves less expenditure and is easy to maintain and can be executed quickly. The estimated cost of this type of latrine is Rs. 3500 per seat without roofs and doors. As regards drainage considering various aspects such as geographical location of slum areas, the degree of rainfall, Rs. 30 per capita as Rs. 150 per hut can be regarded as reasonable.

3.51 Water taps, pathways and street lighting constitute relatively minor items of expenditure and provide good scope for savings. Except water supply the other items do not constitute substantially to the cost of environmental improvement of slums. Considering various aspects, the PCC of Environmental Improvement of slums has been estimated at Rs. 275 if the amenities provided have to be of a scale and quality which really improve the environment of slums.

(vi) *State Government Reports to the Town and Country Planning Organisation*

3.52 During the course of their field visits to cities/towns covered under E.I.S. Scheme, the TCPO have solicited the views of State Government/Union Territories on the adequacy/inadequacy of the existing per capita cost ceiling of environmental improvement. While no State considered the present PCCC as adequate to meet the expenditure on slum improvement most of the States gave varying figures for the revised per capita cost ceiling. These figures range

¹S. S. Tinaiker : Environmental Improvement of Slums and its cost.
Urban Development Task Force Paper S. 4, Planning Commission, 1983.

from Rs. 200 to Rs. 500. The consensus was for a revised PCCC of Rs. 250 to Rs. 300. However, a few States favoured a still upward revision i.e. Rs. 350 to Rs. 500. About 17 States gave their opinion for the upward revision of the PCC, of which six considered Rs. 300 to be adequate while two States thought that it should be Rs. 400 and one each favoured Rs. 200, Rs. 350, Rs. 500 respectively. No basis for the anticipated hike have been given by any State.

3.53 In sum, following are the revised figures for per capita costs for slum improvement obtained from different sources:

- (i) Rs. 250—TCPO Survey, Accelerated Slum Improvement Scheme, Tamil Nadu
- (ii) Rs. 260—Madras Urban Development Project
- (iii) Rs. 275—Task Force Background Paper
- (iv) Rs. 300—TCPO Survey
- (v) Rs. 350—Calcutta Bustee Improvement Programme
- (vi) Rs. 380—Khanna Town, Punjab
- (vii) Rs. 400—M. C., Hyderabad.

Investment requirements for Universal Slum Improvement 1985—2000

3.54 This gives a considerable range of what the per capita cost of slum improvement should be currently. The Task Force on "Financing of Urban Development" has made estimates of the "costs of urban infrastructure". They have included water supply, sewerage/sanitation, solid waste disposal, storm water drainage, roads, street-lighting and land preparation as the essential components of public infrastructure. Their low estimate is about Rs. 750 per capita of which about one-third may be regarded as off-site infrastructure. Of the remaining Rs. 500, if allowance is made for the provision of roads (Rs. 200 per capita) and land preparation (Rs. 60 per capita) which is of a higher standard than envisaged in slum improvement schemes, *a per capita expenditure of Rs. 300—350 (at about 1982 prices) seems a realistic estimate for slum improvement.*

3.55 Table 3.7 gives estimates of investment requirements for universal slum improvement by the year 2000. It is suggested that provision be made for the full incremental slum population in each plan period and the existing backlog of 23—32 million people be covered in phases by the year 2000: 40 per cent in the Seventh Plan, 40 per cent in the Eighth Plan and 20 per cent in the Ninth Plan.

3.56 As shown in the table this scheme implies a provision of Rs. 480—660 crores at Rs. 300 per capita in the Seventh Plan for coverage of about 16—22 million people—an approximate doubling of physical targets in the Sixth Plan. Taking into account the earlier conclusion of slum population now being nearer 25 per cent than 20 per cent, and the discussion on costs, it would seem that within the above range the recommended expenditure in the Seventh Plan for slum improvement should be about Rs. 650—750 crores.

3.57 It should be emphasized, however, that a more systematic assessment of norms, standards and their costs should be undertaken in order to arrive at realistic costs of these schemes. The practice of fixing per capita norms which are then not changed for long lengths of time should cease. A procedure for the continuous monitoring of these schemes should be put into effect such that evaluations can be done systematically. It would then be feasible to revise the cost norms at regular periodic intervals in response to changes in the cost struc-

ture prevailing in the economy. The above figures should therefore be taken to merely indicate the order of magnitude of funds recovery for the universal improvement of slums by the year 2000. Note that the backlog itself is about as much as the incremental slum population expected.

TABLE 3.1
PROGRESS OF SCHEME OF ENVIRONMENTAL IMPROVEMENT OF SLUMS—ALL INDIA
UPTO FEBRUARY, 1983

		Population Covered (in lakhs)
1972—74	. . . . .	33
1974—78	. . . . .	17
1978—80	. . . . .	18
Sub-Total	1972—80	68 ¹
1980—81	. . . . .	11
1981—82	. . . . .	16
1982—83	. . . . .	15
Sub-Total	1980—83	42 ²
Grand Total	. . . . .	110

Source : 1. Ministry of Works & Housing, Government of India.

2. Town and Country Planning Organisation, Ministry of Works and Housing.

TABLE 3.2

STATE-WISE PROGRESS OF SCHEME OF ENVIRONMENTAL IMPROVEMENT OF SLUMS, 1980-83

Population Covered (in '000)

State	Sixth Plan 1980-85 Physical Target	Achievement 1980-83	Percentage achievement
1. Andhra Pradesh	1000	750	75.0
2. Assam	50	9	18.0
3. Bihar	132	80	60.6
4. Gujarat	333	195	58.6
5. Haryana	253	88	34.8
6. Himachal Pradesh	27	10	37.0
7. Jammu & Kashmir	293	99	33.8
8. Karnataka	400	182	45.5
9. Kerala	400	30	7.5
10. Madhya Pradesh	534	137	25.7
11. Maharashtra	850	400	47.1
12. Manipur	8	1	12.5
13. Meghalaya	20	7	35.0
14. Nagaland	..	..	..
15. Orissa	37	28	75.7
16. Punjab	333	186	55.9
17. Rajasthan	167	75	44.9
18. Sikkim	12	5	41.7
19. Tamil Nadu	1075	648	60.3
20. Tripura	33	10	30.3
21. Uttar Pradesh	670	383	57.2
22. West Bengal	660	460	69.7
<i>Union Territories</i>			
1. Delhi	700	358	51.1
2. Goa, Daman & Diu	33	13	39.4
3. Mizoram	30	6	20.0
4. Pondicherry	36	28	77.8
TOTAL	8086	4188	51.8

Source : Town and Country Planning Organisation, Ministry of Works and Housing, 1983.

TABLE 3.3
COVERAGE OF ENVIRONMENTAL IMPROVEMENT OF SLUMS IN METROPOLITAN CITIES
(UPTO MARCH 1983)

(in '000)

City	1981 Census Population	Population covered under the Scheme			Total upto March 1983	% of the total beneficia- ries	
		Before the Sixth Plan	1980-81	1981-82			1982-83
1	2	3	4	5	6	7	8
Calcutta	9166	1366	220	200	80	1866	27.22
Greater Bombay	8227	1832	121	63	124	2140	31.22
Delhi	5714	166	66	133	159	524	7.64
Madras	4277	(a)	(a)	850(b)	..	850	12.40
Bangalore	2914	(a)	(a)	135(b)	29	164	2.39
Hyderabad	2528	137	78	14	36	265	3.87
Ahmedabad	2515	..	..	32	..	32(c)	0.47
Kanpur	1688	205	..	21	25	251	3.66
Pune	1685	130	..	21	11	162	2.36
Nagpur	1298	162	..	102	15	279	4.07
Lucknow	1007	176	11	11	5	203	2.96
Jaipur	1005	103	..	4	12	119	1.74
TOTAL	42024	4277	496	601	496	6855	100.00

Notes : (a) No separate figures are available for persons covered under the Scheme upto 1979-80 (before the Sixth Plan) and for the years 1980-81, 1981-82, 1982-83; only cumulative figures of coverage upto March 1982 and December 1982 for Madras and Bangalore cities respectively are available.

(b) Total under col. 5 does not include these cumulative figures of persons covered. However total under col. 7 includes the cumulative total mentioned above (in col. 5).

(c) The figures are partial since these do not include improvement work undertaken by the Municipal Corporation of Ahmedabad.

Source : (i) Town & Country Planning Organisation, Ministry of Works & Housing, Govt. of India, 1983.

(ii) Housing and Urban Development Department, Government of Tamil Nadu, 1983 (for Madras city).

TABLE 3.4
SLUM POPULATION IN INDIA : PROJECTIONS, 1981—2000

A. <i>Urban Population</i>	(Population in Millions)			
	1981	1985	1990	2000
India	162	188	225	310
Metropolitan ¹	42	51	65	95
Other Urban	120	137	160	215

Source :—Task Force on “Planning of Urban Development”

B. *Estimated Slum Population*

	1981 ²	1985	1990	2000
India Low ³	32	38	45	62
High ⁴	40	47	56	78
Metropolitan Low ⁵	14	17	22	32
High ⁶	16	19	25	36
Other Urban Low ⁷	18	21	23	30
High ⁸	24	28	31	42

1. Estimated Metropolitan population includes that of cities expected to have more than 1 million population in the projected years.
2. Task Force estimates for 1981 Slum Population
3. “All India” Low estimate : Assuming 20% of additional urban population will be in slums, Squatters’ settlements, etc.
4. “All India” High estimate : 25% of additional urban population.
5. “Metropolitan” Low Estimates : 33% of additional metropolitan population.
6. “Metropolitan” High Estimates : 38% of additional metropolitan population.
7. “Other” Low Estimate : Residual from (3) and (5) (About 15% of additional other urban population).
8. “Other” High Estimate : Residual from (4) and (6) (About 20% of additional other population).

TABLE 3.5
 SLUM POPULATION YET TO BE COVERED—ALL INDIA
 (FEBRUARY 1983)

(in '000)

	Total Urban Population	Total Slum Population estimated for 1981		Total No. of slum dwellers covered up to Feb. 1983	Slum Population yet to be covered	
		Low	High		Low Estimate	Estimate High
1	2	3	4	5	6	7
All India	155233	32414	40875	10983	21426 (66.10)	29887 (73.11)

Percentages in bracket relate to total slum population.

Source: (1) Coverage of Beneficiaries : Town & Country Planning Organization, Government of India.

(2) Slum Population : Task Force Estimates.

TABLE 3.6

SLUM POPULATION YET TO BE COVERED---METROPOLITAN CITIES
(MARCH-1983)

(in '000)

City	1981 Census Popula- tion	Population living in Slums on the basis of assumed percen- tages		Slum Popula- tion covered upto March 1983	Slum population yet to be covered	
		Low Estimate	High Estimate		Low Estimate	High Estimate
1	2	3	4	5	6	7
Calcutta	9166	3208	3666	1866	1342 (42)	1800 (49)
Greater Bombay	8227	3291	3702	2140	1151 (35)	1562 (42)
Delhi	5714	2571	2857	524	2047 (80)	2333 (82)
Madras	4277	1283	1497	850(a)	433 (34)	647 (43)
Bangalore	2914	583	728	164(a)	419 (72)	564 (77)
Hyderabad	2528	506	632	265	241 (48)	367 (58)
Ahmedabad	2515	503	629	32(b)	471 (94)	597 (95)
Kanpur	1688	675	760	251	424 (62)	509 (67)
Pune	1685	253	337	162	91 (36)	175 (52)
Nagpur	1298	389	454	279	110 (28)	175 (38)
Lucknow	1007	352	403	203	149 (42)	200 (50)
Jaipur	1005	251	302	119	132 (53)	183 (61)
Total	42024	13865	15967	6855	7010 (51)	9112 (57)

Notes : (a) This is a cumulative total of beneficiaries covered upto March 1982 and December 1982 for Madras and Bangalore, respectively

(b) These figures are partial since these do not include the number of beneficiaries covered under Slum-Improvement undertaken by the Municipal Corporation of Ahmedabad.

(c) Percentage in bracket relates to slum population.

Source : (1) Town & Country Planning Organisation, Ministry of Works & Housing, Government of India.

(2) Housing & Urban Development Department, Government of Tamil Nadu, 1983 (for Madras city).

TABLE 3.7

INVESTMENT REQUIREMENTS IN LOW INCOME URBAN SETTLEMENTS, 1985-2000

A. Estimate of Backlog in 1985		(In millions)							
		Total Slum Population 1981		Slum Population covered upto 1983	Expected coverage 1983-85	Increment to slum population 1981-85		Estimated backlog 1985	
		Low	High			Low	High	Low	High
India		32	40	11	4	6	7	23	32
Metropolitan		14	16	7	2	3	3	8	10
Other Urban		18	24	4	2	3	4	15	22
B. Slum Population to be covered 1985-90		(In millions)							
		1985-90		1990-2000					
		Low	High	Low	High				
India	Incremental Slum Population			7	9	17	22		
	Backlog coverage			9	13	14	19		
	Total :			16	22	31	41		
Metropolitan	Incremental Slum Population			5	6	10	11		
	Backlog coverage			3	4	5	6		
	Total :			8	10	15	17		
Other : Urban	Incremental Slum Population			2	3	7	11		
	Backlog coverage			6	9	9	13		
	Total :			8	12	16	23		
C. Investment required of 1985-2000		(Investment in 1982 in Rs. crores)							
		1985-90		1990-2000					
		Low	High	Low	High				
(i) At per Capita Cost of Rs. 300									
India		480	660	930	1230				
Metropolitan cities		240	300	450	510				
Other Urban		240	360	480	720				
(ii) At per Capita Cost of Rs. 400									
India		640	880	1240	1640				
Metropolitan cities		320	400	600	680				
Other Urban		320	480	640	960				

Notes : 1. Backlog Coverage : It is assumed that approximately 40 per cent of existing backlog in 1985 will be covered in the Seventh Plan and the rest in the Eighth and Ninth Plan.

2. It is assumed that all the slum population will be covered by the year 2000 with the backlog coverage distributed as above.

IV. IMPEDIMENTS TO HOUSING INVESTMENTS BY THE POOR

4.1 The poor do make substantial housing investments. The issue is how to encourage larger investments without the poor having to sacrifice any of the basic essentials for living and how to utilise that investment to achieve greater comfort and livability of shelter. The poor, in this context, need to be defined as all those who cannot compete in the authorised housing market owing to their low income and for lack of assets. This chapter reviews the various impediments, legal and otherwise which militate against the poor even helping themselves.

The Role of Legislation

4.2 Some of the legal impediments which are related to Town Planning legislation (which provides the statutory basis for Master Plans/Development Plans of cities) and building regulations are well recognised (though hardly any modifications to them have actually been made) as factors which inhibit the poor from making significant housing investments. These relate to zoning regulations, standards of services, minimum plot sizes, maximum permissible density, requirements of minimum sizes of living spaces and standards of building construction etc. All such requirements put the cost of even minimum sized plots and minimum specified tenements far above the means of the poor and in effect deny them access to authorized, "decent" housing.

4.3 It is generally accepted that the security of land tenure encourages investment in housing. From this point of view legislation regarding slum areas which affects settlements of the poor needs to be analysed. As mentioned in the last chapter the first Slum Areas (Improvement and Clearance) Act which was applicable to the Union Territory of Delhi was passed in 1956. Talking about the Bill, the then Minister for Home Affairs explained in the Rajya Sabha: "According to the normal standards, the population in an acre should not exceed 200. In Delhi, it is on an average, as much as 600. But in the Slum Areas the number of persons per acre—in some of the Katras—goes up to about 2500."

The Minister told the Lok Sabha: "The population living in Slums comes to nearly 2 lakhs; that is, about 40,000 families are somehow managing to exist in these Slums. So, the Bill seeks to remove this evil and we hope that vigorous measures will be taken in order to restore some sort of decency of life to the large numbers who are living under unimaginable conditions in these areas today."³ The Act primarily applied to dilapidated, overcrowded, insanitary pucca buildings since the problem then as explained by the Minister, was mainly of insanitary living conditions in such buildings. By amendments made after 1964, the Act encompassed unauthorized hutments also.⁴ Subsequently some of the States

¹Report of the study group on Town Planning and Building Regulations, Ministry of Works and Housing, Govt. of India.

²Birdi, H. D. Delhi Slums and Law, ISSD, New Delhi 1982, (p. 107)

³Ibid, (p. 107)

⁴For instance (Section 4) "(1) where the Competent Authority is satisfied that any building in a slum area is in any respect unfit for human habitation, it may serve upon the owner of the building a notice requiring him to execute the works of improvement specified therein and stating that in the opinion of the authority those works will render the building fit for human habitation."

The amendment in 1964 added :

"Provided that where the owner of the building is different from the owner of the land on which the building stands, and the works of improvement required to be executed relate to provision of water taps, bathing places, construction of drains, open or closed as the case may be, provision of water-borne latrines or removal of rubbish and such works are to be executed outside the building, the notice shall be served upon the owner of the land."

passed similar pieces of legislation based on the Slum Areas (Improvement and Clearance) Act, 1956. The following states have enacted Slum Areas Acts :

- (1) Andhra Pradesh (1956)
- (2) Madhya Pradesh (1956)
- (3) Assam (1961)
- (4) Punjab (1961)
- (5) Uttar Pradesh (1962)
- (6) Tamil Nadu (1971)
- (7) Maharashtra (1971)
- (8) West Bengal (1972)
- (9) Gujarat (1973)
- (10) Karnataka (1974)
- (11) Kerala

Broadly they all conform to the Slum Areas (Improvement and Clearance) Act, 1956. There are minor differences between them (except the case of Gujarat where there is no provision for land acquisition under the Act).

4.5 Because of tardy implementation resulting in failure to keep pace with the growth of population in the cities, Master Plans/City Development plans failed to create an orderly and hygienic urban environment and the problem of the growth of unauthorised hutments increased. As a result of the recognition that the policy of clearance and rehabilitation of slum dwellers could not be successful in the face of growing problems⁵, the Scheme for Environmental Improvement in Slum Areas was introduced in 1972 in the Central Sector. The operation of the Scheme is made possible by the statutory provisions in the Slum Areas Act in those states where it has been passed.⁶ The important sections among these provisions, which relate to slum improvement, are listed below.

4.6 The Slum Area (Improvement and Clearance) Act, 1956 states that:

“(i) Where the Competent Authority upon report from any of its officers or other information in its possession is satisfied as respects any area that the buildings in that area—

- (a) are in any respect unfit for human habitation, or
- (b) are by reason of dilapidation, overcrowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light or sanitation facilities or any combination of these factors, are detrimental to safety, health or morals,

it may, by notification in the official Gazette, declare such area to be a slum area.”

“(ii) In determining whether a building is unfit for human habitation for the purposes of this Act, regard shall be had to its condition in respect of the following matters, that is to say—

- (a) repair
- (b) stability

⁵ Description of Slum Improvement Scheme-Internal Brief for Minister P. C. Sethi, Ministry of Works and Housing, 1980.

⁶ The states which have not enacted Slum Areas legislation face several legal problems in taking up improvement work in slums, particularly those on private lands. They presumably try to implement the Scheme by taking action under Municipal Acts and by laws.

- (c) freedom from damp
- (d) natural light and air
- (e) water supply
- (f) drainage and sanitary conveniences
- (g) facilities for storage, preparation and cooking of food and for the disposal of waste water;

and the building shall be deemed to be unfit as aforesaid if and only if it is so far defective in one or more of the said matters that it is not reasonably suitable for occupation in that condition.”⁷

4.7 *Slum Improvement*: The Act empowers the Competent Authority to serve upon the owner of a building or land in a slum area, to execute the works of improvement. (see footnote 4). In the event of the owner failing to execute the work, the Competent Authority may itself do the work required to be done under the notice and recover the expenses with interest from the owner.

4.8 *Acquisition of Land*: Where it appears that in order to enable the Competent Authority to execute any work of improvement in relation to any building in a slum area or to redevelop any clearance area, it is necessary that land within, adjoining or surrounded by any such area should be acquired, the Government may acquire the land and make it available to the Competent Authority to execute the necessary work. The amount payable as compensation under this Act is sixty times the net average monthly income actually derived from such land during the period of five consecutive years immediately preceding the date of publication of the notice to acquire the land.

4.9 *Protection of Tenants in Slum Areas from Eviction*: No person can evict a tenant from a building or land in a slum area without permission from the Competent Authority. In granting or refusing such permission the important factors which are taken into consideration are:

- (a) whether alternative accommodation within the means of the tenant would be available to him if he were evicted.
- (b) whether the eviction is in the interest of improvement and clearance of the slum area.

4.10 The Slum Areas Act refers to the inadequacy of shelter in terms of its structural quality, hygienic condition and availability of services. It does not concern itself with its legality or illegality. Originally, when the Bill was drafted, its major concern was with the improvement of old, insanitary pucca buildings, in which case the question of ownership of the building and of the land on which it stands, and the contractual relationship between the owner and occupiers is generally straightforward. When the Act is applied to hutments, their unauthorized status raises a number of questions which the Act does not deal with. The Act seeks to provide basic services to slum dwellers in order to relieve the wretched conditions in slums. Its limited objective is to stop slum areas from being a danger to the health, safety and morals of the people of the area. In this respect it is a temporary measure.

4.11 A pucca building may become a slum over a period of time owing to neglect, lack of or inadequate maintenance, overcrowding, etc. (behind these reasons may be such factors as

⁷Section 3 Declaration of Slum Area
The Slum Area (Improvement and Clearance) Act, 1956.

the Rent Control Act, non-availability of affordable alternative accommodation etc.). A hutment, however, is a slum from the start because as an unauthorized settlement it suffers from haphazard growth and a lack or acute underprovision of basic services such as potable water supply, latrines and drainage. The emergence of hutments can be directly attributed to Town Planning legislation and building regulations which lay down standards of space, services and construction, the achievement of which is beyond the investing capacity of the low-income population. Slum improvement may relieve insanitary and wretched conditions in old, pucca buildings, but it cannot be a corrective measure even to that limited extent in the case of hutments as long as the processes of Town Planning, financing and management, which determine the access people have to land and services, continue to operate in their present form. Thus the laws and procedures formulated in the name of creating planned development and hygienic environment effectively exclude the poor from some of the fundamental necessities of a better life. Worse still, the prevailing system calls into question the legitimacy of their very existence.

4.12 From the above discussion it becomes obvious that Slum Improvement is not intended to provide a solution to the question of housing for the poor. It is silent on the crucial question of tenure to the residents of slums (hutments). Although the impracticability of slum clearance is well recognized and it is assumed that the slums which are taken up for improvement will remain for some years, their residents are given no legal status. The Act has thus failed to create conditions conducive to the making of housing investment by the poor.

4.13 Slum improvement work as part of the Minimum Needs Programme, includes provision of communal water taps and latrines, paving/widening of pathways, construction of open drains and installation of street lights. These improvements can be carried out after an area is declared as a slum area under the Slum Areas Act. Any person aggrieved by such a declaration can appeal to the Administrator (Tribunal, Appellate Authority, Court, etc. in the State Acts) and get the declaration rescinded. No improvements are possible in such cases. Even in those cases where an area is declared as a slum area and is improved, the ownership of the land continues to rest with the original owner. The residents get no legal right to occupy the land. They are protected from eviction, in that the Competent Authority has to grant permission to evict residents of notified slums. (Residents in non-recognized slums do not get such protection). The Act mentions land acquisition only 'in order to enable the authority to execute any work of improvement in relation to any *building* in a slum area or to *redevelop* any clearance area'. It is ambiguous on the question of acquisition of land to facilitate hutment improvement.⁸ Because the Slum Areas Act does not concern itself with the unauthorized status of hutments, or ownership and proposed use in the city Master Plan/Development Plan of the land on which they are situated, a number of difficulties arise in the operation of the Slum Improvement Scheme. A large number of hutments are situated on lands which are regarded in the Master Plan/Development Plan as unsuitable for building purposes e.g., lands subject to flooding, steep slopes of hills, lands without proper access etc. Many of them cannot be improved at a 'reasonable expense' (as required by the Act) and for others slum clearance is the only viable alternative. Given the impracticability of slum clearance and rehabilitation (as expressed in government documents) the possibilities for slum improvement in such hutments are doubtful.

4.14 Many hutments occupy lands reserved for public purposes (schools, hospitals, parks etc.) in the Master Plan/Development Plan of the city. The record of Master Plan implementation has generally been very poor. In addition to the problems of inordinately long and complicated land acquisition procedure, local authorities face the problem of acutely inadequate finance to acquire the reserved lands. These lands cannot be built upon or sold; they remain

⁸Most of the State Acts, however, explicitly mention acquisition of land to facilitate slum (hutment) improvement. But, as far as can be ascertained, this provision in the Acts has been utilized in extremely rare cases to acquire land for this purpose.

vacant. Many of them, over a period of time, are occupied by hutments. Can those hutments be improved? If the statutory provisions of the Master Plan are not to be violated, they must be cleared, which is rarely possible. Alternatively they can be improved as a temporary measure. The guidelines for slum improvement⁹, however, suggest that the slum must not be earmarked for clearance for at least 10 years from the date of effecting improvements. This compromises the Master Plan. The third possibility is that when the Master Plan is revised (there is a statutory provision for revising the Master Plan every 10 years), the land-use of the sites of hutments is changed from 'public purpose' to 'residential' to accommodate the existing slums. This would, in all probability, mean less than adequate provision in the Master Plan of public amenities for an area, such as schools, hospitals, which are primarily intended to be used by the poor. Such anomalies have their roots in the contradictions between the Town Planning Act (which provides the statutory basis for Master Plans/Development Plans) and Slum Areas Act.

4.15 The Act makes no reference to the question of ownership of the land on which a slum is situated. This also presents difficulties for executing slum improvement. The guidelines for the Scheme of Environmental Improvement in Slum Area¹⁰, therefore clearly stipulate that improvements should be completed in slums located on public lands before those on private lands can be considered. Public lands include lands owned by State Government, Central Government, railways, Port Trust etc. Even here the record of implementation of slum improvement on lands owned by different public agencies is very uneven. There is resistance from some of them to allow slum improvement on their land.

4.16 Generally most of the hutments are highly densely built. When slum improvement work is executed realigning and shifting of huts is sometimes required in order to make room for building communal latrines, open drains and pathways. The Scheme, however, does not provide for reducing the high level of congestion in hutments by decanting some of the households to other suitable locations (although the Slum Areas Act defines overcrowding as one of the factors which renders buildings in an area detrimental to health, safety and morals). This is primarily because slum improvement is regarded as a temporary measure, executed only to the extent of providing basic services on (or in rare cases, near) the site of individual hutments. As such, it is not dovetailed with a larger programme for decongestion which is, in a number of cases, a primary need.

4.17 All such problems arise because the Slum Areas Act does not take into account the unauthorized status of hutments. It makes its central concern the provision of sanitary environment in slums. This may indeed be the need in unsanitary, unsafe, pucca buildings but in hutments the problem is not bad sanitation alone¹¹ but more importantly their illegality. The failure of the Slum Areas Act to deal with the unauthorized status of hutments perpetuates the sense of vulnerability (*vis-a-vis* the city authorities and/or slumlords, local interest groups etc.) and acts as an impediment to possible sustained and substantial improvement by the slum

⁹Ministry of Works and Housing, Govt. of India : Draft Revised Guidelines for Point 10 (a) of the 20 Point Programme-Scheme for Environmental Improvement in Slum Areas October 1982.

¹⁰ *Ibid.*

¹¹Experience amply shows that mere provision of basic services on a meagre scale (as given in the guidelines and even more meagre in practice) and an absence of an effective community organization to maintain the services, do not lead to any appreciable improvement in the sanitation situation in hutments. In this respect even the limited objective of the Act is defeated. (Also see S. S., Tinakar's paper-Environmental Improvement of Slums and its cost).

dwellers of their shelter. They remain outside the formal Town Planning framework as aberrations in the Master Plan. In the absence of security of tenure the residents are reluctant to invest in shelter improvements any more than absolutely necessary to attain minimum liability. In fact, the Slum Areas Act restricts erection (which includes extension, alteration or re-erection) of a building in a slum area without the previous permission of the Competent Authority¹². The Act, however, does not specify the conditions which need to be fulfilled to obtain such permission.

4.18 Because of a variety of shortcomings in the Slum Areas Act it is not capable of creating conditions fit for human habitation in hutments. To limit the problems they have to deal with, city authorities in some cases have devised a cut-off date (usually a date on which an enumeration of hutments is carried out) to establish the 'authorized' status of residents of hutments, although by their very nature all hutments are unauthorized. Those families who start residing in the hutments after this date are said to be 'unauthorized'. There is no statutory basis for such a distinction in the Slum Areas Act. It defines a slum only on the basis of structural and hygienic conditions and makes no reference to the date of its establishment. The need to devise such a cut-off date shows the total inadequacy of the Slum Improvement Scheme to deal with the problem.

4.19 Slum improvement is a temporary measure. The need 'to formulate a perspective plan for slum improvement' or 'to prepare a long-term plan to give security of tenure to slum dwellers'¹³, is often expressed in government documents. These perspective or long-term plans cannot, however, be prepared in isolation of the overall Town Planning framework. Short of restructuring the basis of Town Planning which determines the access to urban land and services, no short-term measure is likely to really alleviate the situation of the poor in cities.

The Constraints of "Illegality"

4.20 The illegal status of hutments creates a number of difficulties and exposes them to various forms of exploitation. Slumlords often extort money from them under various guises (as rent, contribution for festivals, for obtaining basic services etc.). In large cities where the pressure on accommodation even in hutments is great, substantial sums of money have to be paid in order to "buy" a patch of land or a shanty at certain locations. The poor and less educated feel vulnerable in face of strong arm tactics of various vested interests for grabbing land. The sense of insecurity which surrounds many such unauthorized settlements leads to reluctance on the part of the residents to make significant housing investments.¹⁴

4.21 Hutments generally grow by accretion in a haphazard manner. Newcomers pitch their shelter close to the existing huts. During the initial period of uncertainty the residents are unwilling to spend more than the barest essential minimum on their shelter, and that too on such materials which can be re-used. The unauthorized and unplanned growth leads to overcrowding

¹² This probably applies to pucca structures. In any case there is no machinery to control such new construction work in hutments.

¹³ Description of Slum Improvement Scheme : Internal Brief for Minister, P. C. Sethi, op cit.

¹⁴ See *Appendix* for case studies on the process of housing hutments made by a sample of low income families in Poona.

and leaves very little or no possibility of expansion of the existing huts. Even when the owner may wish to carry out improvements and may have a capacity to invest in house extension, he is limited by the non-availability of space. As pointed out earlier, there is no provision to decongest hutments as part of slum improvement. Therefore, even in 'improved' hutments, excessively high densities continue to prevent or restrict incremental improvements of shelter.

4.22 The poor are denied legal access to land and the consequent possibility of housing improvement, by various vested interests for a variety of reasons. There are instances where groups of city residents who are property tax payers have taken the city administration to court in an attempt to stop possible resettlement of hutment dwellers on a piece of public land next to their properties. There are cases where a proposal by the city administration to resettle hutment dwellers on a piece of land earmarked in the City Development Plan for Housing for Economically Weaker Sections, is rejected by the Standing Committee of the Corporation. It is suggested in knowledgeable circles that this kind of veto may have been motivated by the desire to protect the interests of landowners in the area. It is also said that it is no accident that a good many hutments are on lands belonging to elected members of the civic bodies and their relatives.

4.23 There is an urgent need to create strong and effective mechanisms to curb such obstruction by vested interest of efforts to house the poor which are procedurally in order. Unless this is done the poor will continue to be denied access to land and a chance of improving their shelter.

4.24 The illegality of hutments imposes a severe constraint for obtaining institutional finance for shelter improvement.¹⁵ In the absence of a clear title to the land, the channels for obtaining loans formally for house building remain closed. Those in formal employment can obtain loans because of certain facilities that go with their jobs. They are, however, not necessarily cheap loans and are often available only for short term and hence require high repayment instalments. In most cases they are not available for house construction but obtained for this purpose under some other head. Even this possibility is not open to those in casual, unsteady employment. A few of them manage to raise small amounts of loans, often interest free, from their employers; some borrow from friends and relations, in some cases at exorbitant interest rates; but most find it extremely difficult to put together a sum of money which can adequately finance significant improvement of shelter.

The Limits to Improvement

4.25 Although security of tenure is a necessary condition to facilitate substantial investment in housing improvement, it is not a sufficient condition. The amount of investment people can make in housing is obviously related to their income, assets and access to institutional finance, which may be conditional on the kind of privileges and facilities that go with their jobs, such as loan against Provident Fund, employees' co-operative societies, employer's guarantee for institutional loans, etc.

4.26 The demands of the materials and techniques used for construction are also a limiting factor. For instance, a hut made from polythene sheets, rush mats, dry twigs, gunny sacks etc.

¹⁵ See also H. U. Bijlani "Evaluation of Sites and Services Projects".
Planning Commission, *Urban Development Task Force Paper S-2*, 1983.

is a minimum shelter. An improvement on it is a shed built from rough wooden slats, recycled tin sheets, broken or sundried bricks in mud mortar and plaster, asbestos cement sheets, galvanized iron sheets, clay roof tiles and such other materials. A further improvement, however involves the use of cement, bricks, properly fashioned doors and windows, galvanized iron sheets and clay tiles, all of which require the use of relatively expensive materials and skilled labour. Each of these levels of construction or improvement represents distinct levels of investment magnitude, which determine who can do what and when. The first level—that of the minimum shelter—requires minimal capital investment. The materials used may be free of recycled waste. The major investment in this case is that of labour and time, and subsequently on maintenance and upkeep. At the second level, monetary expenditure on both materials and labour is higher, but that on maintenance and upkeep may be lower, and the degree of stability and “permanence” of the structure is of a definitely higher order. The third level represents an essentially pucca structure, which demands, on a per square foot basis, only a marginally lower cost of construction than a “legal” structure. The major savings effected are because building regulations do not have to be strictly adhered to. In terms of capital investment the third level represents a big leap from the second and which only a minority of shanty dwellers are capable of.

4.27 An important point, often overlooked, is that the magnitude of investment in housing that a household can make can be assessed by evaluating the chances of occupational mobility and access to stable employment.¹⁶ The low-income population comprises two non-competing groups. The first is employed in urban modern sector jobs mainly owing to a relatively high social standing, higher level of education and contacts with those in formal employment who help them in obtaining jobs. The second group is effectively barred from modern, urban employment on account of their lower social status and the lack of qualifications and contacts, and are thus condemned to remain in traditional, low-skill, casual and low-paying occupations. Incidence of upward mobility from urban traditional and casual jobs to modern sector employment is very small.

4.28 If this situation is viewed against the levels of construction mentioned earlier, it is clear that the big leap to an almost pucca house is possible for some, but the vast majority has no capacity to improve their houses beyond the second level. What is therefore needed is a range of technical measures for improving rudimentary shelters. The key factor here is simplicity and ease of construction which puts it within the reach (in terms of both economy and skills) of the poor. It is possible to make innovations in design which make huts adequate shelter but which involve very little additional resource use. Some research has already been undertaken in this field, for instance water-proofing of mud walls which can, at a modest cost, render them free from maintenance needs for five years (CBRI). This is, however, supposed to apply in urban areas which often do not permit such type of construction. Such products are neither easily available, nor is there any effort to disseminate information about them to potential users.

¹⁶ Collier, P. : “Labour mobility and labour utilization in developing countries”, Oxford Bulletin of Economic and Statistics, Vol. 37, No. 3, 1975.

Joshi, Heather and Vijay: *Surplus Labour and the City—A Study of Bombay*, Oxford University Press, Delhi, 1976.

Bapat, Meera : *Shanty Town and City : The Case of Poona*, Pergamon Press, Oxford, 1981.

4.29 Starting with such relatively inexpensive means of improving shelter, other technical innovations could include, for the relatively better paid, a range of building components which are easy to assemble and which can be bought and used a few at a time to suit the individual purse.

The Need for Change in Programme and Policies

4.30 To encourage such technical innovations, however, what needs to be recognized is that self-help housing and sites and services programmes are a viable alternative to the question of shelter for the poor. Lip service is often paid to such programmes. There is, however, no evidence of their having been undertaken on a significant scale to make any impact on the housing situation, they must be provided on a large scale and at various locations in a city to offer settlers a choice. Barring very few examples (mainly World Bank aided projects), in practice however, only small sites and services schemes, if any, are designed as part of public housing programmes.¹⁷ The procedure for inviting applications (generally by advertising in local newspapers) is such that it rarely reaches the needy and the schemes can go undersubscribed. It is therefore essential to devise channels of communication which can carry the necessary information to the poor, many of whom are illiterate and apprehensive of the system. Unequal access to information can also be disadvantageous in that it leaves the poor and vulnerable open for exploitation by those who can use the information and their knowledge of the system to their own advantage at the cost of the poor or to make them dependent.

4.31 The provision of sites and services is generally made for the lowest income group (Economically Weaker Sections). To prove their eligibility for the scheme, the applicants have to produce a number of documents—certificates, affidavits, photographs etc. which can be a barrier to many who do not have the wherewithal to obtain them. Again, to tie up eligibility for getting a site with income, excludes all those who have higher incomes but which are still too low to enable them to compete in the housing market. Rather than stipulating income as a criterion, what could be more constructive is a system of incentives and disincentives—in terms of locations, plot sizes, amenities, repayment charges—on the basis of which people can make their own selection of a site from a wide range and substantial number of choices. Further, the procedure for the collection of repayment charges/rent needs to be flexible enough to make it possible for those on daily wages to pay their dues. They may not be in a position to plan their outgoings as their income is unstable; a procedure must be created to allow them payment in instalments.

4.32 The facts regarding constraints on resources and the abysmal record of public housing programmes clearly demonstrate that the traditional approach to housing, either in terms of broad objectives or its concern with architectural standards is largely irrelevant given the basic facts of poverty and urban growth. And yet, there is resistance at various levels to alternatives such as self-help housing. More basic than the attitudinal change, however, is the need to remove the obstacles the poor face in gaining access to land and basic services. This will create conditions conducive for them to make investments in housing improvements.

¹⁷Appendix III gives an evaluation of Sites and Services Schemes according to the experience of HUDCO.

V. EXISTING INNOVATIVE PROGRAMMES IN SHELTER AND SLUM IMPROVEMENT

Introduction

5.1 An informal/*ad hoc* attempt to identify some innovative and successful programmes to shelter the urban poor and to improve the conditions of existing slums, in different parts of the country, has resulted in a short list of eight projects which, even if not exactly successful in all respects, represent attempts to confront issues rather squarely (the issues of poverty, low income, affordability, cost recovery, coverage, felt needs and priorities of urban poor, participation, non-physical needs of slum communities, etc.) and for those reasons appear relevant and show a potential for replication. They are also 'innovative' at least in one respect. All of them represent a departure from the conventional answer to the slum problem: medium-rise, pucca, heavily subsidized tenements built year after year by the slum clearance boards, municipal authorities and public housing agencies.

Projects

5.2 The selected projects include¹:

- (i) The Urban Community Development Projects in general and the Hyderabad Urban Community Development Project in particular
- (ii) 'Habitat' housing programme of the Hyderabad Urban Community Development Project
- (iii) Weaker Section Housing and Shelter Improvement Programme of the Vishakhapatnam Urban Community Development Project
- (iv) Sulabh International of Patna
- (v) Bustee Improvement Programme of Calcutta
- (vi) Arumbakkam Sites and Services Project of Madras
- (vii) Resettlement Colonies Project of Delhi, and
- (viii) Slum Rehabilitation Project at Vasna, Ahmedabad.

Similarities and Differences

5.3 These projects differ vastly from each other in philosophy, size, focus, organisation, approach, impact and per capita cost. The Urban Community Development Project of Hyderabad, the Resettlement Colonies Project of Delhi and the Bustee Improvement Programme of Calcutta are all meant for the slum dwellers and are big in size but differ significantly from each other in focus, approach and operational style. The Hyderabad UCD, spreading over length and breadth of the twin city, covers all slum pockets (over half a million people), is multi-sectoral in nature in response to peoples' felt needs, is highly participatory; shelter component is relatively small and is becoming a model for the entire country to follow on account of its extensive coverage and positive impact. Delhi's Resettlement Colonies Project has covered almost a million people, is mainly shelter focussed, has not bothered to involve people and due

¹ (i) (ii) (iii) (iv) (v) and (viii) are described in greater detail in Appendix I.

to its implementation style—forced evictions—has become quite controversial. Calcutta's Bustee Improvement Programme has covered over 2 million people, focuses primarily on in-situ environmental improvement, user participation is almost non-existent and is now also trying to meet the Bustee dwellers non-physical—nutritional, educational, health and income—needs. Between Madras' Arumbakkam Sites and Services Project and Ahmedabad's Vasna Slum Rehabilitation Project there are many similarities (Vasna: 2250 families; cost Rs. 1.10 crores; new site 7 kms from the city centre and loan recovery instalment Rs. 20 per month. Arumbakkam: 2200 families; cost Rs. 1.84 crore; resettlement site 7 kms from the city centre and loan recovery instalment for the lowest category of occupant Rs. 22 per month). There are also significant differences (In Vasna, the planning and implementation responsibility was primarily with a voluntary agency; in Arumbakkam, it is a formidable combination of the World Bank, MMDA and the Tamil Nadu Housing Board. In Vasna, the houses were built by an external agency. In Arumbakkam, the agency's involvement is mainly in laying the services and preparing a frame-work for house construction. In Vasna there is substantial subsidy. In Arumbakkam, 100 per cent cost recovery is aimed at. In Arumbakkam, the services and facilities have been provided as planned. Vasna, in that respect, has lagged far behind. The loan repayment performance at Arumbakkam is reported to be good, while at Vasna it is dismal). Though Calcutta, Madras, Hyderabad (Habitat), Delhi, Ahmedabad and Vishakhapatnam are all primarily 'shelter' projects, there is a great variation between them in approach and performance. The Calcutta Bustee Improvement Programme concerns itself with improvement in the quality of and access to environmental and social services but refrains from touching the super-structure (thereby avoiding such difficult issues as land title and tenure). In Arumbakkam, it is an incremental shelter (sanitary core, wall and roof unit etc.) where as in Vasna a fully built house is provided. In Hyderabad and Vishakhapatnam though houses are owner built (as against agency or contractor built) they are pucca and conventional. Sulabh International is neither a government organization nor strictly a voluntary agency (more or less a 'commercial' organisation) and its focus is neither shelter nor slums. It is low cost, easy to maintain, affordable and replicable sanitation technology. Despite variations, differences and even contrasting styles these projects represent new ideas, new approaches, new attitudes, new organisational styles and therefore, a new hope for the seemingly intractable problem of sheltering the urban poor and improving the living environment in city slums.

Special features

A wider definition of slum problem: concern for human development

5.4 Some of the above listed efforts reflect in their (project) design a much wider and deeper understanding of the slum problem—not only a problem of environmental degradation and physical deprivation to be solved by constructing pucca houses but a more complex socio-economic, political, cultural and human problem to be solved through a range of responses: education and awareness to motivate the individual; community organisation and mobilization to promote collective and cooperative group action and planned intervention for income supplementation and creating conditions for sustainable change. The Hyderabad UCD dwells heavily on 'human development through participation.' The Vasna project at Ahmedabad started by saying that "slums are people not places" and tried a "comprehensive approach incorporating social, economic, educational and motivational inputs, alongwith housing" so that "an alternative value system may emerge and far reaching attitudinal and behavioural changes may take place." In 'Habitat', 'Hyderabad and the Weaker Section Housing at Vishakhapatnam the house is 'only an entry point' and the participatory way of constructing a house is only a "means of bringing out peoples' internal creativity". People, not the physical environment, appears to be the new focus in some of the selected projects.

Shelter for the Poor : Attitudinal and Strategic Changes

5.5 All the 'shelter' projects listed here show a significant change in the attitude towards the slum problem and a new strategy to housing the urban poor. These changes include :

- A major shift in *attitude towards people* (Not an unproductive burden but a *productive resource*)
- A new interpretation of and approach to peoples' self initiated housing actions and self generated housing stock (Even if deficient, approaches to a *solution not a problem*. Not to be demolished but *to be conserved and improved*)
- A new definition of a house (Not necessarily pucca or permanent, status symbol but *one that shelters adequately*)
- A redefinition of the housing task (Not necessarily permanent buildings but *liveable environment*)
- A new role for the traditional housing agencies (Not doers but *facilitators*. Not builders but *promoters*)
- A new relationship between housing agencies and the clients (Not donors and receivers but *partners*)
- A new economics (Not charity but investment)
- A new definition of scale (Not symbolic gestures but *full coverage*), and
- For some, a new vision (Not houses alone but *overall development*)

Rejection of Multi-storey Tenements

5.6 Interestingly, in none of the above shelter category projects medium-rise, contractor built and pucca tenements, so much in vogue during the '50s and '60s, have been constructed. In Vasna, the houses are agency built, conventional and pucca but they are only ground storey, high density structures grouped around a central open courtyard. In Hyderabad and Vishakapatnam the new houses are pucca but mostly ground floor structures and self built. In Arumbakkam, the houses are incremental in nature. Only a part of the house is built by the external agency. In the Bustee Improvement Programme, Calcutta, the effort is concentrated on improving the environmental services and community facilities, the shelter is not even touched.

Large Scale

5.7 Unlike earlier years when the efforts were mostly sporadic and symbolic (a few hundred pucca tenements per year in a city where thousands of families lived in slums), now some of these projects are attempting a much wider canvass. UCD Hyderabad covers more than 80 per cent of Hyderabad's half a million slum dwellers. Under the Bustee Improvement Programme of Calcutta around two million slum dwellers, in about 2000 locations, have been covered. And in Delhi's Resettlement Colonies, almost a million slum dwellers have been rehoused in a relatively short period of time.

Low Cost

5.8 A characteristic common to all the eight projects and the one that makes them affordable and replicable is their low cost. The organisational cost of reaching out to around 4 lakh slum dwellers spread over 450 pockets in the twin city of Hyderabad and Secunderabad and initiating, coordinating and monitoring more than 160 welfare/development activities for them is less than Rs. 7.0 lakh per year (Rs. 1.75 per person per year or paise 15 per person per month). Per capita cost of providing environmental services and community facilities in Calcutta's Bustee Improvement Programme was Rs. 150 in the initial years and now it is estimated to be Rs. 280. In Arumbakkam Sites and Services Project a slum household in Rs. 150—350 income group is required to pay an initial deposit of Rs. 200 and monthly instalment of Rs. 22

only (for 20 years) for a 40 sq. mt. plot. In Vasna, Ahmedabad (1975-76) construction cost of a reasonably well built house (brick walls in cement mortar, precast purlins, asbestos roof) was only Rs. 10.75 sq. ft. Sulabh International's twin pit, bucket flush latrine is much less expensive compared to a capital intensive and wastage prone water borne sewerage system. Pucca and conventional houses built under the Habitat project in Hyderabad and the Weaker Section Housing Project in Vishakhapatnam cost between Rs. 5000 to 8000 only (though they are not the cheapest available structures in that category/quality of houses).

Need-based Solutions and Multi-sectoral Involvement

5.9 Some of these projects are trying to go beyond meeting physical needs of the slum dwellers like building houses or improving the residential environment. This is a major departure from the earlier practice of confining involvement to construction of houses alone (an on-going practice with many a slum clearance board even today). The Arumbakkam Sites and Services Project, besides providing home-sites, environmental services and community amenities, has an income supplementation component and a special service programme for mothers and children. Calcutta's Bustee Improvement Programme has an ambitious health component and a well-conceived scheme for supplementing income. In Hyderabad the housing activity started much later while the educational, motivational and welfare work were going on since its early beginning. The Vasna Project, from its very inception was conceived as an integrated effort and besides housing included community organisation, leadership training, income supplementation, non-formal education and other community development activities.

5.10 This multi-faceted approach and multi-sectoral involvement is in recognition of the fact that construction of a house or even improvement in the quality and availability of environmental services does not necessarily lead to improvement in the quality of life of slum dwellers. Unless people earn more, unless they get organised to maintain their houses and services and until these improvements are supplemented by preventive and curative health care, education and other inputs there could not be a perceptible change in their lives.

Attitudinal Changes

5.11 Most of these projects signify an attitudinal change towards the people and the problem. Some of them are based on the understanding that the people are an asset, not a burden and that their initiative and energy should be utilized in solving problems. The guiding principle in the Bustee Improvement Programme of Calcutta is that the Bustee huts are not an eye-sore deserving demolition but a component of housing stock, however deficient, that should be preserved and improved. In Vasna, the theme is "slums are people, not places" and, therefore, the effort is geared towards human and community development through participation and involvement. The stated objectives of the Hyderabad UCD are "creating a sense of social coherence on a neighbourhood basis, developing a sense of belonging to the urban community, bringing about a change in attitude by creating civic consciousness, developing local initiative, etc". This new attitude to the housing task means accepting peoples' informal housing activities as legitimate starting points of a problem solving process. And the new attitude to the people means taking people as a creative resource capable of solving their own problems.

Participation

5.12 User involvement at various stages of decision making, resource mobilization and project implementation and in different roles of builder, helper or organiser is an important feature of some of the identified projects. The Arumbakkam Sites and Services Project, recog-

nizing peoples' building skills, provides only a serviced plot with a sanitary block or a skeleton house with two walls and a roof. The completion of the structure is left to the individual's initiative and skill. In this case the external agency makes that beginning and expects people to follow on their own. In the Calcutta Bustee Improvement Programme the external agency enters the scene much after the people have acted in building their huts. In Vasna, the people played a prominent role in evolving the house design and the lay-out plan and ascertained their choice in selecting neighbours. In Habitat Hyderabad, more than 5000 pucca, conventional houses have been built by people themselves without an external agency taking construction responsibility or a contractor working as middleman. The UCD Hyderabad rests on the assumption and works on the principle that even disadvantaged groups, when motivated and organised, can work for their betterment. The participatory way of working has brought many changes and advantages in these projects. Some of these include : reduction in construction cost, greater user satisfaction, wider coverage, improvement in the maintenance and debt servicing performance, greater initiative, awareness and cooperation among the community members etc.

Organisational Innovations:

5.13 The agencies in charge of the Habitat-Hyderabad and the Weaker Section Housing in Vishakhapatnam are not the conventional 'housing' agencies (which are usually manned by engineers, surveyors and architects who deal almost exclusively with construction techniques, contractors and building materials) but the community development organisations (staffed mainly by social workers and community organisers with skills and faith in motivating people and activating communities but mostly ignorant about technical and engineering matters). As projects have grown in size, number and complexity the design, engineering and technical wings have been strengthened but they still play a supportive, services provider-role, compared to the Community Development Organisations who remain the principal motivating force. This arrangement, interestingly, has accounted for a fresher approach and many innovations. In Hyderabad and Vishakhapatnam the 'non-technical' people are defining the problem afresh, viewing housing in the context of other needs of the poor, insisting on people's participation and attempting to use the house building process as an opportunity to organise people for self development.

5.14 Whereas in Hyderabad the non-housing agencies are moulding a new housing strategy, in Madras, a new housing strategy (in-situ improvement of slums and Sites and Services), has necessitated a new organisation or substantial changes in the existing one. While implementing the Arumbakkam Sites and Services Project (through the Tamil Nadu Housing Board) and the Slum Improvement Projects (through the Tamil Nadu Slum Clearance Board) the MMDA realised a need for and created a Community Development Cell to help establish a rapport with the potential users and to seek their active cooperation. Prior to these projects none of these organisations had social workers or community organisers on their staff. Similarly, the Calcutta Metropolitan Development Authority, which is carrying out a massive improvement programme in the Bustees of Calcutta for the last ten years but has neither developed a community development wing within the organisation or sought assistance of any other agency with required orientation and skill—and subsequently has failed to involve bustee dwellers in any of its activities—is now keen to rectify the error and an effort is being made to organise a community development wing and recruit appropriate personnel for the job.

5.15 Another important development, with regard to organisational innovation, is the involvement and increased participation of non-governmental voluntary agencies in the shelter and other development activities meant for the urban poor. In Madras, the Madras Metropolitan Development Authority made a specific effort to invite and involve voluntary agencies in playing specific roles and undertaking specific responsibilities in implementing, sites and services

and slum improvement projects in various parts of the city. In Hyderabad and Vishakhapatnam, not only the external voluntary agencies but organised groups of local residents are also playing an important role in delivering various community services. In Calcutta, CMDA and UNICEF are evolving a programme of service delivery through voluntary agencies and community groups. And in Patna, a non-governmental agency called Sulabh International is involved in research, development and extension work on low cost sanitation technology. Though some of these roles are secondary and supportive in nature (delivery of services planned and designed by others) there are examples of voluntary agencies playing crucial, primary roles. Sulabh International's work in low cost sanitation technology in Patna and elsewhere, and Ahmedabad Study Action Group's role in the Integrated Urban Development Project in Vasna-Ahmedabad, are cases in point. In the Slum Rehabilitation Project at Vasna, ASAG played a crucial role in project conceptualisation, formulation, design, resource mobilization, construction, pre-shifting and post-settlement community work and delivery of basic social services. In a project involving construction of a new settlement for 2250 flood hit slum households, which was funded jointly by the Government of Gujarat, Ahmedabad Municipal Corporation, HUDCO and OXFAM, ASAG, a non-profit public charitable trust run by a multi-disciplinary team of professionals advocated the cause of the flood victim slum dwellers, played a critical role in bringing various agencies together and mobilize funds, provided architectural and engineering services for housing and community buildings, undertook construction responsibility, coordinated working of various partner agencies, conducted socio-economic studies of the target community, organised allotment, took initiative in organising educational and health facilities, started income supplementation activities for women, ran an innovative programme to foster creativity in children, organised leadership training and started many other welfare and development activities for the resettled people.

5.16 Involvement of a voluntary agency in the Vasna Resettlement Project changed its character, content and performance. First, ASAG's advocacy role brought many agencies together and gave birth to the project. Second, its involvement and human development bias prevented it from becoming yet another 'housing' project. Third, due to ASAG's insistence and approach the occupants could play a role in project design and implementation. Fourth, saving in the construction cost was of the order of 30 per cent compared to any agency built housing project at that time. And fifth, many experiments in delivery of social services became possible. The entrepreneurial ability, aggressive salesmanship and a special organisational structure—which besides ensuring the benefits of a registered society also permits Sulabh International to work almost as a contractor—are important factors not only for the financial success of Sulabh International but also its enormous spread (what started as a small activity in Patna ten years ago has now become a state-wide programme in Bihar, Orissa, West Bengal and other places. Sri Lanka and Afghanistan are also experimenting with Sulabh technology). It is conceivable that had Sulabh International restricted its role to motivating, training and demonstration only (as Safai Vidyalaya of Ahmedabad has done) and not started providing turn-key services for installation and maintenance of low cost sanitation units, Sulabh International may not have spread as fast and wide as it has. Sulabh's willingness to play a turn-key contractor's role has helped many a safety seeking organisation to adopt the new technology.

Cost Recovery

5.17 When Madras city which had started making virtue (and political capital) out of its highly subsidized tenement housing schemes for the slum dwellers changed its course and took up the sites and services and slum improvement schemes on a 100 per cent cost recovery basis, it was a significant development for slum improvement work in India as slum housing and subsidy, for a long time, had become inseparable. In Arumbakkam, insistence on cost recovery has not necessarily deprived the poor of access to developed plots as 50 per cent of the plots have been

sold only at Rs. 1.0 per sq. mt. through a cross subsidy method (differential pricing of marketable land). In Calcutta, cost recovery is indirect where the investment is sought to be recovered by bringing into the tax net the improved bustees (property tax and service maintenance charges). In Hyderabad and Vishakhapatnam housing projects, though the land and the services are subsidized, at least the cost of the super-structure is recovered (and the loan recovery performance is astonishingly good) even though instalments are relatively high (Rs. 45 to 50 per month).

5.18 The cost recovery aspect of the Arumbakkam Sites and Services Project, Hyderabad and Vishakhapatnam Housing activities and Calcutta Bustee Improvement Programme needs to be studied rather carefully as it holds the key to attracting further investment in this work. The Hyderabad experience, in particular, is of great significance because while a personalised approach and participatory way of working seems to reflect positively on the borrowers' accountability, the strain of subsidy—on land, infrastructure services, community amenities and organizational services—is beginning to weigh adversely on project extension and replication potential.

Land Issues

5.19 The land issue is critical to effectively handling the slum problem. Experience in many places has shown that secure land tenure is an 'enabling' condition and motivates residents to invest their energy and resources in improving their shelter and environment. The Hyderabad project has proved this effectively. Out of 13000 slum households, who were granted pattas, over half have created a permanent asset in the form of pucca houses. While in Hyderabad the pattas are offered in the declared slums, in Vishakhapatnam, vacant government and private land is acquired to be given to slum dwellers free of cost. In Vasna, the land was provided free of cost by the State Government. Calcutta's Bustee situation being more complex, the CMDA has avoided getting into the title or ownership issue altogether. At Arumbakkam, the land is sold at a subsidized rate to the poor through a cross-subsidy method. In the case of Delhi resettlement colonies security of tenure has not been granted yet and land is still being held in a licence basis. Habitat, Hyderabad; Weaker Section Housing Vizag.; the Arumbakkam Project, Madras; the Vasna Project, Ahmedabad and the Resettlement Colonies Project, Delhi have all tried to tackle the land issue in different ways but, except for Arumbakkam, other approaches and solutions, even if they may have worked in a particular situation appear questionable and doubtful in the long run. In Hyderabad, despite some remarkably positive gains, distribution has not moved smoothly after the first 13000 pattas were distributed. In Vizag, the Municipal Corporation is already feeling the strain of the heavy burden of land acquisition cost. Vasna, Ahmedabad is the lone example in Gujarat (providing free land for slum rehabilitation) and in the last seven years no other project on similar lines has developed. In Resettlement colonies of Delhi there is a resentment that despite promises, land titles have not been transferred to the allottees.

Infrastructural Services and Community Facilities

5.20 Provision of infrastructural services of reasonable quality and adequate civic amenities is a distinguishing feature of Hyderabad, Vishakhapatnam, Vasna, Arumbakkam and Calcutta projects. In case of Hyderabad, Vishakhapatnam and Vasna all the services and facilities are fully subsidized by the Municipal Corporation. In case of Calcutta, the users are expected to pay service maintenance charges and the capital cost is planned to be recovered from the property taxes and betterment charges. In Arumbakkam, cost on community facilities like primary schools, clinics and community halls is to be realised by transferring assets to appropriate agencies and the cost of infrastructural services is to be recovered from sale of developed plots.

General Recommendations

5.21 These eight projects and programmes put together have all the ingredients of a successful strategy to improve conditions of living in slums of Indian cities and provide affordable shelter to urban poor. They include methods to reduce cost, ways to involve people, render existing organisations and institutions more effective, and make programmes and projects need-based and relevant.

5.22 If one were to pick up the distinguishing features from each of the eight discussed projects, a formula to effectively handle the slum problem would emerge. The salient points of that formula will be as follows:

1. Provide secure land tenure. If an overall policy is not possible, do so from project to project, on area to area basis.
2. Concentrate on activities like the Urban Community Development which embrace various aspects of slum dwellers' needs and problems, and encourage community involvement in finding solutions.
3. Adopt low cost solutions like in-situ environmental improvement, and sites and services. Avoid, as far as possible, construction of expensive formal houses.
4. Insist on cost recovery.
5. Involve people.
6. Design multi-sectoral projects. Incorporate health care and income supplementing activity along with physical improvements.
7. Restructure & re-orient existing institutions and agencies:
—those involved in programme planning, designing, financing and implementing projects.
8. Organise shelter upgrading activity through material banks and institutional credit for repair.
9. Actively encourage and facilitate voluntary agencies' and community groups' involvement in planning and implementing projects and running activities.
10. Avoid symbolic gestures. Undertake projects/activities affecting sizeable numbers.
11. Encourage and adopt appropriate, low cost technologies.
12. Aim at overall development. Use opportunities and inputs as means of strengthening people rather than mere provision of services.

APPENDIX I

CASE STUDIES OF INNOVATIVE PROGRAMMES

- 1. Urban Community Development Project, Hyderabad**
 - 2. Weaker Section Housing, Vishakhapatnam**
 - 3. The Bustee Improvement Programme, Calcutta**
 - 4. Sulabh Shauchalaya, Bihar**
 - 5. The Slum Rehabilitation Project at Vasna, Ahmedabad.**
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1. URBAN COMMUNITY DEVELOPMENT PROJECT, HYDERABAD¹

Descriptive Information

1. The first experiment in Urban Community Development was initiated in 1958 in Delhi with a Ford Foundation grant. The methodology of community development, already current in rural India since the early fifties was thought relevant to urban areas as well and the first series of Urban Community Development Projects were started in Ahmedabad (1962), Baroda (1965) and Calcutta (1966).

2. The earlier projects were carefully observed by the Government of India and based on these experiments a Rural-Urban Relationship Committee was set up to detail the planning of Urban Community Development Projects on a nation-wide scale and to examine role of the municipalities in implementing such projects.

3. The Committee reported that there was a lack of awareness among people that the municipality was there to serve their needs. The Report suggested a need for constant discussion of local problems and needs so as to help people verbalize their felt needs, to motivate change and encourage people to exercise their own initiative in planning and carrying out improvement projects. Technical and welfare resources would then be directed to the people to assist them in meeting their felt needs.

4. On the recommendations of this Committee, during the last year of the Third Plan (1966), the Government of India initiated the Urban Community Development programme on an experimental basis. Originally planned for forty cities, pilot projects were finally taken up in fourteen cities. State Governments were not enthusiastic in supporting this experiment and subsequently seven of the original fourteen projects closed down. Of the remaining seven projects, Hyderabad is one of the few cities with a continuous history of successful implementation and expansion of the urban community development programme.

5. Hyderabad is the fifth largest city in India, after Calcutta, Bombay, Delhi and Madras. In 1981, the population of the city was estimated at 2.2 million. About 23% of the population i.e. approximately 500,000 people live in slums.

6. Hyderabad and the adjoining city of Secunderabad were combined into a single administrative unit under the Municipal Corporation of Hyderabad. The city has one of the largest Muslim populations of any city in India. Muslims who constitute 11 per cent of India's population, form 38 per cent of the population of Hyderabad. In the older part of the city, where the Urban Community Development Project was first started, Muslims constitute 71 per cent of the population. This is of special significance for any programme involving women, because, in India, Muslim women are more home-bound than women of other communities; their participation in the work force and even in community activities outside the home is very low.

7. This has important implications for mobilizing women for participating in community activities and even for organizing income-generating activities, which would preferably have to be home-based, rather than in a location away from home. Under these circumstances living in a proper house rather than an impermanent shanty, becomes doubly significant.

8. The Hyderabad Project like the other pilot projects was designed to cover a population of 50,000 people divided into eight "neighbourhoods" for implementation purposes. The staffing pattern provided for a Project Officer and eight Community Organizers who would be supported by voluntary workers selected from the local communities.

9. The Hyderabad UCD Project was designed to cover the total population within the project area. Though some of the activities of the project were directed to middle or lower-middle income groups, the main focus of project activities is on slums and the poorest areas.

¹This section describes the Hyderabad Urban Community Development Project including its "Habitat" component.

10. From 1967 to 1976 the UCD programme expanded from one project area covering approximately 4000 slum population to three project areas covering approximately 60000 slum population. In 1981, the programme consisted of nine project areas covering a slum population of over 4.0 lakh living in 459 slums. There are at present 470 slums in the twin city as compared to 300 in 1976 and 94 in 1967. The remaining eleven slums have not been covered because the land on which they are situated is either under dispute or has been earmarked for some other purpose by the Hyderabad Urban Development Authority.

11. At the start of the project (1967), the Hyderabad UCD covered 4% of the total slum population of the city. In 1976 coverage increased to 20% (3.0 lakh people) and in 1981, 80% (5.0 lakh people) of the slum population.

12. The All-India pattern of activities evolved for UCD projects suggested a list of possible activities but the Hyderabad UCD staff was given scope to develop activities according to the felt needs of the people and were given a mandate to cover activities not normally covered by a Municipal Corporation : running nursery schools, organizing adult education classes, eye camps, vocational training programme etc. Whereas the suggested list of activities adds upto 50, the list of activities variously implemented in different locations within the project area in Hyderabad add upto 160.

13. The above 160 activities are categorised under five main headings and show a specific bias towards involving people :

- | | |
|--------------------------------|---|
| (a) Child Welfare activities | Pre-school classes, immunization, balwadis, mid-day meal centres, medical check-up, creche, etc. |
| (b) Women's Welfare activities | Mahila Mandal, income generation activities, etc. |
| (c) Youth Welfare activities | Typewriting classes, youth rallies, matric coaching classes, auto-rickshaw driving, gymnasiums, playground, youth clubs, civil defence. |
| (d) Housing | Home improvements, clean-house competition, patta distribution, Habitat, Brick manufacturing units, etc. |
| (e) Other activities | (for the community as a whole) : dispensaries, exhibition, study tours, Basti Committees, Cooperatives, film-shows, anti-mosquitos drive etc. |

14. None of the above activities is a single-purpose activity :

- Setting up Basti (slum neighbourhood) Welfare Committees and Mahila Mandals (women's organisations) are ways of working with communities through their own community members—they are the means for promoting self-help.
- Study tours, exhibitions, film shows are not only ways of expanding the horizons of those participating, but are also means of drawing the community together—of fostering a "we" feeling.
- Improving physical amenities is not only for improving people's living conditions; it is a way of calling on community co-operation. Housing is not just a family affair; the whole

2. WEAKER SECTION HOUSING : VISHAKHAPATNAM

Descriptive Information

21. The Vishakhapatnam Urban Community Development Project, started in 1979, is a text book replication of the Hyderabad UCD Project. The broad pattern of the Project is the same as the Hyderabad UCD. 31,200 households comprising of 1.52 lakh people live in 168 slum pockets. The Ratio of slum population to total population in 1980 was 25%. Due to rapid urbanisation and industrialisation, increased port activity and the university, the population is growing very fast (Decennial growth rate for the decade 61-71 was 7.21%). Slums are also multiplying fast. The proposed steel plant on the city boundary is likely to aggravate the situation still further (under Indo-Soviet collaboration over Rs. 3000 crores will be invested in the next three years. 50,000 direct and 200,000 indirect jobs are expected to be created).

22. Under the Environmental Improvement Scheme in Slums, physical amenities (drainage, pavements, roads, street lights, water, latrines, bathrooms, etc.) at a cost of Rs. 1.32 crore were provided during 75-81. The Weaker Section Housing Scheme was started by the Urban Community Development Project which commenced in 1979. Till now 3000 houses funded by HUDCO and 693 houses funded by banks have been completed. Work on the HUDCO financed scheme of 1400 EWS houses (at Kobbarithota) has started recently and proposals for 2000 more houses are being processed by the State Government and HUDCO.

23. The general pattern for organising the shelter activity is as follows: A land plot (either in the existing slum or at a new location) is provided free of cost by the Municipality. The Environmental services (water, sewerage, drainage, roads, street lights) and a community hall are also provided free of cost. Loan for construction of the house is secured from a bank or HUDCO. UCD staff members conduct surveys, assess the situation, prepare project reports for approval of the concerned department and submission to funding agencies and organise communities for construction work. People build their own house (pucca with RCC roof and costing between Rs. 6500 to 8000).

24. Under its Shelter Improvement Scheme the UCD has helped 428 households improve their shelter—mostly replacement of thatched roof by mangalore tiles, installation of windows for ventilation, and addition in roof height. UNICEF is providing a subsidy of Rs. 1000 per unit which is given in the form of tiles and wooden columns and beams. Repairs and improvement are done by people themselves. They are also bringing additional finance, if required.

25. The Shelter Improvement Scheme has been well received and the selected slum households have used the opportunity to improve their houses considerably. Encouraged by the success of demonstrative action the Scheme has now been incorporated as a Lead Bank Scheme in the District Credit Plan for 1983-85. It envisages assistance to 1000 households upto an expenditure of Rs. 2500 per unit.

Observations

26. The Weaker Section Housing Programme being implemented by the Vishakhapatnam Urban Community Development Project is in many ways a remarkable effort. For an agency working within the municipal set up, the dynamism and flexibility are noteworthy. For a new agency (only three years old) VUCD has covered a vast ground. In different schemes different solutions are attempted. Four types of schemes are going on simultaneously : (i) new houses on new sites (ii) new houses in existing slum pockets (iii) two or three storeyed houses in existing slums and (iv) shelter improvement. These schemes are different in nature, each posing a special challenge and requiring a special response. Despite the limited experience and inadequate organisational set up, the scale of operation is also impressive.

27. The most important aspect of the programme, however, is the manner of its execution. The house-owner is doing most of the work, not the building contractor. Interestingly, people are building pucca houses (with R.C.C. slab, plastered walls and operable windows unlike kutcha houses built in most self-help housing schemes). In the process, people are learning to work collectively and picking up new construction skills. A few of them have started new business activities using the newly acquired skills and materials. Compared to a contractor built house, the self-help house is less expensive. Though there is a definite scope for improvement in the design of houses and site-lay out and

a great potential to further strengthen the Shelter Improvement Scheme, it is recognised that new houses are generally elegant and the improved shelters are a great change over their previous huts.

28. On account of the generous investment made by the Municipal Corporation in laying services, the quality of overall environment in new settlements is generally good. Roads are wide and well built. Drains, though open, are clean. Street lights are appropriately spaced and work. Open spaces are vast and the general standard of cleanliness is good. The quality of services provided by the Vishakhapatnam Municipal Corporation is noteworthy in comparison to such other projects where standard of services is generally poor and overall environment gloomy.

29. Shelter Improvement Programme, though in its early stages, also looks quite impressive. Investment is small (only Rs. 1000 from UCD). But the small amount is making a good impact. People are making significant changes in their houses. In the Muslim Tatachetalapalam area, for instance, some families have done a remarkable job of improving their houses.

30. Three important decisions are responsible for these developments. First, the Andhra Pradesh Government's decision to provide secure land tenure (patta) to the slum households and in case of new sites, virtually free land, are giving a much needed incentive to the people to invest in building houses and improving their environment. The Vishakhapatnam Municipality's decision to provide basic services and community facilities free of cost is the second helpful decision. And the community organisation and liaison work done by the Vishakhapatnam Urban Community Development Project staff is helping people to play a useful role in constructing houses.

31. For various reasons the design department of the VUCD is rather weak and needs strengthening. A designer or two with appropriate orientation, skill and experience would be a great help. It is possible to improve present designs (in terms of space allocation and utilization, cost reduction, circulation efficiency, arrangement of services, choice of materials and also the aesthetics). It is possible to evolve many more alternative designs to suit different people's requirement, style and economic conditions. Though the house owners play a crucial role in construction, in evolving house plans or lay-out they contribute practically no ideas. It should be possible to work-out a participatory design process in which the house owners could also contribute ideas and suggestions. The layouts, in particular, need attention. There is an obvious scope for cost reduction. For instance all new houses are built as duplexes. If a row housing concept is adopted more walls could be shared, higher density could be attained and cost of laying infrastructural services could be reduced.

32. Compared to a private contractor provided or public housing agency built structures, the houses built under this programme are less expensive. But they are not necessarily cheap or low cost. For instance, cost of a house unit (measuring 205 sq. ft.) in Adarshanagar, in 1979-80, was Rs. 7200. If Rs. 1400 given as subsidy by the Vishakhapatnam Municipal Corporation for latrine and bath room is added, the cost comes to Rs. 8600. This worked out to Rs. 42 per sq. ft. (in 1979-80, now the same would be Rs. 70 per sq. ft.) excluding the cost of land, infrastructural services and professional services of the designer, engineer and community workers of UCD. For most of the poor both the amount of money and rate of construction are quite high although a comparison may be invalid as specifications are different and conditions available in Vishakhapatnam and Ahmedabad are not the same, it is instructive to know that the cost of construction at Vasna (1974-75) was Rs. 11.25 (sq. ft.) Built up area, selection of materials, design and the construction method are mainly responsible for the cost of a structure. If the slum-household are offered alternative designs, structural components, building specifications and details and explained their cost implication, they may possibly opt for a less expensive solution.

33. For an agency which will build around 8000 houses in four or five years (direct investment of Rs. 7.0 crores), using participatory work methods, the organisational machinery at the disposal of VUCD seems quite inadequate, particularly on the technical side. Whereas under the Hyderabad UCD Director a full-fledged Technical Team consisting of an Assistant Engineer, 12 Supervisors, and Assistant City Planner, 4 Town Planning Assistants and 12 Draftsmen-cum-Surveyors is available, all that UCD Vishakhapatnam has is one Assistant Engineer. Though technically speaking the Town Planning and the Engineering Wings of the Vishakhapatnam Municipal Corporation are expected to provide assistance and occasionally services of planners/designers from the Vishakhapatnam Urban Development Authority is supposed to be available on demand, in practice not much timely help seems to be forthcoming. The Assistant Engineer is overworked and though technically qualified for

supervisory functions, he lacks skill and experience in the areas of design and participation. Non-availability of technical services due to inadequate staff is affecting the performance adversely.

34. The organisational inadequacy reflects on the house design, layout plans, and even technical drawings. It also reflects on material management, cost control and other supports people require. The entire programme looks severely handicapped on account of an inadequate organisational set-up.

35. In terms of people's participation, although, what is being done is note worthy, innovative and useful, there certainly is need to widen scope of people's involvement. In a participatory housing programme the house-builders could play various roles depending on the manner in which 'participation' is arranged and sought. They can help in selecting site, evolving design, procure and protect building materials, supervise construction, provide skilled-unskilled labour, maintenance of services, management of estate etc. etc. It is clear that participation in this programme at this stage is limited to a few selected tasks and areas. There is both the need and possibility to involve people more in many additional ways. The new areas of involvement, operational modalities, cost benefits (both in material and non-material terms) and nature of the organisation set up for the purpose need to be examined.

36. Though the Shelter Improvement Scheme is well received and is showing positive results, ten case studies in two locations (Godarigotalu and Muslim Tatachetlapalam) suggest a need for some organisational rearrangements and additional interventions to secure financial assistance. In these two places though the poor have responded to the scheme with great enthusiasm and improved their huts impressively there are two developments that cause concern. First, as subsidy of Rs. 1000 provided by the VUCD is not sufficient to renovate or repair the house fully, the households involved in improving their shelter are required to borrow money from other sources. These borrowings range from Rs. 3000 to 18000 and are costing people a yearly interest of 30% to 72%. Mohammed Yusuf of Muslim Tatachetlapalam, aged 58, and father of 4 sons and 4 daughters, was found to have borrowed Rs. 18000 and is paying Rs. 1050 per month only as interest. He has mortgaged his wife's ornaments and is not quite sure as to how will he repay the amount.

Second, though the people are doing a satisfactory job of improving their shelter, a little technical assistance here and there could help them save quite some money or make space divisions a lot more efficient and functional. (The case studies revealed some wasteful use of imported cement, wasteful/inefficient space divisions and poor detailing, all of which are easy to prevent/improve.)

37. At this stage the UCD project provides only the building materials worth Rs. 1000. But if people are getting so heavily indebted and exploited, some alternative ways could be found to get the extra money. Perhaps a bank could be involved, and a community revolving fund could be set up; or a risk guarantee fund could be set up. The project should arrange for the technical services of an experienced person who could help prepare a rough blueprint of changes to be made, work-out budget estimates and advise people on the use, price and availability of building materials. A way should be found to buy discarded, second-hand materials as done by Freedom to Build in Manila.

38. In the UCD Vishakhapatnam sponsored shelter activities there is a scope for and need to :

- improve/modify designs
- reduce cost
- evolve alternative layouts to correspond with people's life style, achieve higher density, reduce infrastructure development cost and promote new aesthetics.
- suggest use of alternative building materials
- employ alternative construction techniques
- solicit greater involvement of people
- strengthen organisational set-up for design, planning and execution
- introduce new technical inputs and establish new linkages with financial institutions (in Shelter Improvement Activities)
- organise an efficient system of cost monitoring and performance evaluation.

3. THE BUSTEE IMPROVEMENT PROGRAMME, CALCUTTA

Calcutta Metropolitan District—The Bustee Scene

39. Calcutta Metropolitan District (CMD) covering an area over 1400 km., a linear conurbation along both banks of the river Hoogly and comprising two Municipal Corporations, 33 municipalities, 62 non-municipal urban areas and over 500 rural units holds at present a population exceeding 9 million. The twin cities of Calcutta and Howrah respectively on the East and West banks of the river, forming the core of the Metropolitan area, together account for a current population exceeding 4 million, occupying a total area of about 150 sq. km. under conditions of extreme overcrowding. The slum population in the CMD is over 2.5 million of which the twin cities of Calcutta and Howrah account for 1.75 million scattered over more than 3000 locations.

40. A very large segment of this slum population, nearly 90% occupy, "tenancy settlements" locally termed as 'bustees' as distinct from "Squatters" Settlement. In the bustees of Calcutta and Howrah, title to the land is held by one person, the structures (predominantly huts with mud-packed bamboo walls and fire-proof roofing with burnt clay tiles or GCI sheets) belong to a second person and the bustee dweller is a tenant of the structure (hut) owner. The occupancy is characterised by sharing of barrack like huts subdivided into small cubicles each representing a family shelter and grouped around a small courtyard, accessible from unpaved streets, lanes and bye-lanes, with scanty common services like safe water sources and privy (dry bucket type laterines manually serviced), one each for 10/12 families on an average. Localised as a general rule in poorly drained areas, and having no arrangements worth the name for drainage, these tenancy settlements are prone to flooding and during the monsoon season, portray the worst conditions among known forms of subhuman existence.

41. The basic malady is economic. Bustees are occupied by a large section of the urban poor who have been priced out of other conventional shelters the city offers and have to choose between pavements and bustee hutments. Bustees exist as a market response to these demands and neither the landowners nor the hutowners have any interest to make investments on the shelter and common facilities, so long as the market forces take care of their anticipated returns. The regulatory provisions seeking to enforce the obligations of the bustees and hutowners to maintain essential services and to keep the huts in proper state of repairs do not yield desired results because of inherent weaknesses in the enactments.

42. On an average more than 50% of the bustee families live below the poverty line. In certain bustees, this figure goes up to 75%. A very large proportion of the family members is not in the labour force. Participation rate among women is quite low. The incidence of unemployment ranges between 15% and 40%. A large percentage of the unemployed having given up hopes of securing employment reports themselves as unemployed. Even amongst the employed a very large section remains underemployed, which is nothing but concealed unemployment. The dependency ratio (non-earning dependants to earners) in an average family size of five, ranges between 3 and 4.

Literary Status

43. The Literacy rate of the CMD is 43.2%. For the CMD bustees, the rate may be very near to the CMD average. Primary school enrolment coverage for Calcutta, CMD and West Bengal are respectively 65%, 66% and 80%. Thus excluding CMD, the State coverage is much higher and is very near the national target of 88% by end of fifth Five year plan. Out of 100 wards in the city of Calcutta, 50 wards record coverage below the average level of 65% and in 37 wards the coverage is below 50%. Two categories of primary schools provide the coverage-recognised and unrecognised. The recognised category includes primary schools, which according to certain prescribed criteria qualify for public assistance towards wages of teaching staff and fixed recurring grants. As of 1976, 100 wards of Calcutta had in all 1333 primary schools of which 1273 were recognised and the rest unrecognised. Between them they covered a total pupilage of 283,374 of which the share of unrecognised schools stood at 7554. It would be interesting to note that the 50 wards which record lower coverage than the city average hold a total bustee population of about 6,00,000 of which children in the primary school age group would be of the order of 80,000. Enrolment data do not, however, provide a complete picture. Attendance is estimated at only about 70% to 75% of enrolment. Drop out rate for the primary school cycle as a whole is estimated at about 50-60%. Thus only about 35-40% of the age group complete the primary school cycle. This rate may be as low as 15-20% in Bustees, where severe economic compulsion prevail.

Health Status

44. A recent CMD health survey undertaken by CMDA reveals the following characteristics : Maternal mortality rate is 3 per thousand. Infant mortality rate is 100 per thousand. Sickness incidence is 3% for acute diseases and 6% for chronic diseases. Gastro-intestinal infection including enteric fever tops the list of morbidity (35%) followed by respiratory disorders (10.9%), accidents (5.8%), cardio-vascular diseases (8.7%) and dermatitis (4.3%). While the general status of health in CMD bustees may more or less correspond to the CMD status indicated above, a recent survey conducted in ten bustees covering 10,000 families, clearly vindicates the notion that the families below the poverty line (about 55%) show higher incidence of chronic illness and current sickness and malnourishment among children representing well over 44% of the population in that income class.

Government Policies and Programmes : Past and Present

Slum Clearance and Rehousing :

45. The principal thrust of public efforts in the early fifties and sixties was directed towards removal or clearance of bustees and rehousing the bustee dwellers in medium-rise pucca tenements. Over a period of about 30 years, it has not been possible to rehouse even 2% of the bustee households in the CMD under the slum clearance programme with Central Government assistance. Even with heavy doses of rent subsidies the tenements remained beyond the economic reach of the bustee dwellers. Rehousing at new locations also entailed disruption of established links and access to employment for the rehoused families. Tenement living further constituted a mismatch with their life-style. All these factors coupled with large differential between the subsidised rent and market rent for the rehousing dwelling units, contributed to surreptitious subletting of the rehousing units to income groups well above the bustee dwellers. The futility of the clearance approach was clearly vindicated.

Environmental Improvement in situ and conservation :

46. It was in the early seventies that a major shift in emphasis from conventional rehousing to conservation through environmental improvements in situ, led to the launching of a massive bustee improvement programme in the CMD, under the aegis of the newly formed Calcutta Metropolitan Development Authority (CMDA) with Government of India assistance. This in essence recognised the role of the bustees as a large reservoir of low quality housing stock, even a sizeable portion of which could not be substituted by conventional housing in the foreseeable future; and aimed at preserving them by removing in the first place, the basic environmental deficiencies viz. (a) substitution of water supply sources of doubtful quality by safe potable sources, (b) replacement of open dry latrines by sanitary privies, (c) removal of waterlogging and flooding by an appropriate drainage system, (d) conversion of muddy slushy and dark lanes and pathways into paved and illuminated streets and pathways and (e) substitution of scattered dumps of domestic refuse and garbage by appropriate garbage collection and disposal devices. The improvement programme does not seek to interfere with the complex tenure system and the rights and interests of either the landowners or the hutowners in its current phase.

47. Since commencement of the bustee improvement programme in 1971, more than 1.6 million bustee dwellers in the CMD at nearly 1500 locations have been covered by 1979 at a total cost of over Rs. 240 million, that is, roughly at an expense of Rs. 150 per capita. By 1982, the total coverage is expected to cross the 2 million mark at a total cost of Rs. 450 million since commencement.

48. The site variables for so large a programme spread over nearly 3000 locations are numerous and complex. These call for examination and consideration of a vast array of variables for technological solutions and adoption of the ones most appropriate and acceptable to the community. This therefore requires intimate association of the functional agencies and the community in evolution of the appropriate designs. In the twin city of Calcutta and Howrah, bustee community's participation in the planning and implementation of the programme is secured through 21 Advisory Committees constituted by the Govt. for the 100 wards of the, city of Calcutta and an Advisory Body for the Howrah Municipality, with local community leaders and workers. Good rapport has been built up with the communities through these Advisory committees.

'Khatal' Removal and Cattle Resettlement :

49. Bustees in Calcutta and Howrah have for tactical reasons been traditionally chosen by private milk-traders as centres for keeping cattle and carrying out unlicensed milk-trade. According

to a Govt. estimate there are in all about 2,500 such unlicensed cattle establishments, big and small, housing about 50,000 cattle. Buffaloes constitute the majority of the cattle, brought from the bovine breeding tracts of neighbouring States of Bihar and UP. These establishments locally termed as 'Khatals', though account for a very large share of the city's milk supply, they constitute a hazard not only for the livestock and country's cattle wealth but also the residents of the bustees in which they are located. Large volume of cattle wastes and other refuse choke whatever drainage outlets exist and directly contribute to malfunctioning of the improved drainage systems laid inside the bustees. The State Government has taken three major steps to deal with this evil e.g., (a) augmentation of supplies of processed milk through Govt. dairies and distribution centres, (b) banning of entry of cattle, and (c) removal of 'Khatals' and resettlement of cattle along with workmen in peripheral areas of the city.

50. Works have been taken up by CMDA with financial assistance from the Netherland Government at four sites for resettlement of 14,000 cattle from the city's 'Khatals'. These cattle resettlement colonies will have modern facilities for cattle rearing, feeding, milk processing etc. as also residential facilities for attendants. These were expected to be ready to receive city-kept cattle in phases commencing from June '81 and the full complement of 14,000 by June '82.

Nutrition & Health:

51. Along with physical improvements, feeding centres were opened in Calcutta bustees for distribution of milk and vitaminised breads to bustees' children (0—6 yrs.) and expectant mothers, in collaboration with the Social Welfare Directorate of the Government of West Bengal under the Special Nutrition Programme (SNP). CMDA through its team of social workers carried out pre-identification surveys and took charge of 140 such centres while 200 other voluntary organisations and local youth clubs took care of 662 centres. Over 1,75,000 children and expectant mothers in Calcutta bustees were brought under the fold of the SNP through these efforts including about 30,000 covered by the Health Directorate of Government of West Bengal. By 1977, the coverage reached a figure of 3,00,000. Though CMDA had to disassociate itself from the SNP on account of more pressing pre-occupations with urban infrastructure, the efforts continued to reach the target of 4,00,000 for the CMD.

52. The main thrust of the Health Programme launched by CMDA in the early seventies was directed towards augmentation of hospital beds with emphasis on creation of specialised services in teaching and non-teaching hospitals and introducing a three-tier structure with a referral system through Outdoor clinics, Polyclinics and Hospitals. Mobile clinics were also introduced to supplement the outdoor services particularly for bustees in peripheral areas. The main object was to provide improved access to health services, and reduce overcrowding in Hospitals. This was sought to be achieved by treating minor ailments outside the Hospitals and bringing down incidence of illness through preventive health care and family planning and welfare measures, and augmenting facilities for ambulatory services. While the health service infrastructure under the programme was provided by CMDA, the management and manning of the services rested with the State Health Deptt. One of the essential features of the system was introduction of Family Health Cards for each individual family within the command areas of the outdoor clinics to facilitate monitoring of the health status and the delivery system and in particular follow up of referral cases.

53. Under this programme 37 Outdoor clinics, 5 Polyclinics and 20 Mobile clinics were set up. 56 Ambulances vans were supplied to CMD municipalities and other institutions.

54. The programme received a set back on account of withdrawal of health component from the CMDA programme package during the fifth plan period and inadequate budgetary support in the Health Department. A new pilot programme with special emphasis on bustee population as its principal target has been launched by CMDA in association with the Health Deptt. under its five year programme for the period 1978—82 with IDA assistance.

Termed as Integrated Community Health Programme, it envisages delivery of primary health care including nutrition and family planning services to a target population of about 3,25,000 of which over 2,22,000 are bustee dwellers in 7 selected wards of Calcutta Corporation identified as deficient in health facilities. The proposed health delivery system comprises establishment of 14 Urban Community Health Centres (UCHCs) and 3 Zonal Urban Health Centres (ZUHCs) with 3 attached UCHCs and linking them up with 3 existing polyclinics and three Hospitals for referral and follow up of Hospital discharged

cases. The package of services includes preventive care as well as treatments for minor ailments, periodic health check up, maternal and child care, nutrition education and family planning motivation and services. The entire population in the command area will be covered with routine vaccination against small pox and inoculations against Diphtheria, Tetanus, Whooping Cough, Cholera and Typhoid etc. All malnourished cases will be identified and referred to the nearest feeding centres run by the Social Welfare Deptt. or the Health Deptt. Family information schedule depicting the health status of an individual family would be recorded and up-dated through routine home visits by Multi-purpose health workers.

55. The pilot programme basically seeks to integrate the preventive, promotive and curative aspects of health services at the community level and systematize the referral of patients and their follow up through community based workers; and to measure the effectiveness and efficacy of the health delivery system for replication throughout the CMD at later phases.

Education—Primary and Adult :

56. Improvements of Primary education facilities in the CMD formed one of the components of the CMDA action programme launched during early seventies. It had two sub-components, (a) provision of new buildings with five class rooms, teacher's room, craft room and toilet and (b) renovations of existing structures: to create an intake capacity of 200 students on an average for each school placed in one shift. The location and selection criteria both for new schools and existing ones to qualify for renovation assistance were evolved in consultation with the Education Deptt. of the GOWB and the list of both new construction and renovations was cleared by the Education Deptt. Recognition of the school by the Education Deptt. and clear title to the land on which the school is located, constituted two major pre-conditions to qualify for assistance.

57. Under this programme, 113 new primary schools and about 600 existing primary schools have been constructed and renovated within the CMD by 1975. Currently an extension of this programme is under way. This envisages construction of 80 more new primary schools and renovation of 400 existing schools by 1982.

58. These additional primary school facilities would no doubt wipe off considerably the current deficiencies in the CMD, but both the programmes being not directly addressed to the bustee population in the CMD, their impact on the literacy level in the bustees may be of marginal nature.

Small Scale Enterprise :

59. CMDA decided at the end of 1976 that its efforts towards physical improvement of bustees by provision of urban infrastructure should be complemented by efforts to support the economic activities of the bustee dwellers in order to raise their employment and incomes directly. Pursuant to this, CMDA undertook a survey in early 1977 within ten selected bustee areas, having a total population of about 200,000 a substantial segment of which are in the lowest income brackets, with special focus on the very low income manufacturing units of five important sub-sectors e.g. light engineering, leather tannery, garment making, plywood making and clay modelling. The major common feature of these units is that a majority of them belong to the informal sector, are very small and have insufficient access to institutional credit and technical assistance. The survey broadly revealed that (a) these units provide employment to the lowest income groups (b) most of them suffer from lack of working capital finance. The survey covering about 4,000 units on a sample basis, further revealed that employees wages were low ranging between Rs. 8 to Rs.12 per day, which roughly works out to an annual per capita income between Rs. 300 and Rs. 450 for an average family size of 6, assuming that the family had one earner working for 225 days in a year. The average capital employed per labourer ranged from Rs. 1,000 (clay modellers) to Rs.3,400 (small tanners).

60. CMDA in collaboration with Cottage and Small Scale Industries (CSSI) Department of the GOWB and four nationalised banks, launched in 1978 an experimental programme to support the economic activities of the bustee population in order to raise their employment and incomes directly. The programme, which is largely experimental, is directed to be target group of very small scale enterprises mostly unregistered and belonging to the informal sector in ten selected bustees. It broadly envisages identification of 48,000 service and manufacturing enterprises within a range of five selected industry groups, assistance to prospective borrowers to make loan applications, prompt appraisal of the enterprises by joint site visits and credit disbursements by banks of an average loan size of Rs. 6,250 per unit, over a three year period. The programme further envisages SSE extension service provided by the CSSI mainly with a view to (a) rendering assistance and advice

in securing technical assistance available from various agencies catering to the small scale sector and in provision of inputs and marketing (b) identifying new entrepreneurs and investment possibilities (c) promoting associations/cooperatives to facilitate pooling of inputs, production and marketing (d) promoting loan applications and helping fill them out and (e) identifying training needs of small entrepreneurs and enlisting them for training programmes. The extension service is to play a catalytic role between the bustee population and all institutions catering to the SSE sector. While the promotional costs are to be borne by the extension service, the costs of the actual landing operations are to be borne by the commercial banks. The programme also provides for studies of the SSE potential in Calcutta and surveys of SSE's in all of CMDA slum areas together with performance monitoring of loanees, commercial banks, extension service and coordination efforts. The proposed studies would be utilised to prepare a second phase project with a larger geographical coverage and with industry specific techno-economic support programme.

61. The promotional component of the programme has not made much headway. By mid March 1980, the number of applications received was 1200 of which only 145 cases were taken up for consideration by the Banks and out of that disbursements were made in 58 cases. Because of different attitudes and stands of the four participating Banks in regard to security by group guarantees, profitability vetting by SISI fire insurance cover, marketing facilities, entrepreneurial training gaps, registration of units under the CSSI, rate of disposal of cases shows wide variance amongst the Banks. With this rate of progress the target set for the programme now appears to be over-ambitious and unattainable.

Observations

62. *Large Coverage* : The most impressive aspect of CMDA's Bustee Improvement Programme is its spread and reach. In a relatively short period of about a decade (1971 to 82) about 2 million bustee dwellers have been covered. Compared to low targets and sluggish pace in other cities this is a noteworthy performance.

63. *Low Cost* : The second important point is the low cost of the operation. The first 1.6 million bustee dwellers were covered at a total cost of Rs. 240 million, that is, roughly at an expense of Rs. 150 per capita. And the 2.0 million mark has been reached at a total cost of Rs. 450 million, that is, at Rs. 225 per capita.

64. *Substantial Investment* : An investment of Rs. 45 crore since inception is indicative of attention, the programme is receiving. Calcutta's special status, CMPO's earlier efforts and the World Bank's involvement are obviously responsible for a relatively large capital outlay.

65. *Non-Physical Needs* : A substantial involvement in non-physical needs like nutrition, health, education (primary and adult) and income supplementation/generation through small scale enterprises, in addition to provision of urban services and facilities, makes the programme need-based and therefore, relevant.

66. *Issues* :

- (a) Involvement of communities in planning, execution and maintenance of environmental services and community facilities is absent.
- (b) User satisfaction is quite low. For any fault in quality of working of the services CMDA is blamed. Charges of corruption in contracting and execution are frequently levelled. The general complaint is that the quality of installed services is poor and overall performance is unsatisfactory.
- (c) Maintenance of installed services is poor. To clean up a choked sewer line, replace a stolen water tap or broken street lamp, conduct a minor repairing in overflowing toilet, replace or repair

a garbage bin or fill up a small ditch on the paved street people wait for CMDA or CMC while blaming CMDA for faulty installation and tardy maintenance. Maintenance of services and assests is becoming a serious burden on the CMDA and Calcutta Municipal Corporation. It is difficult to say if people's active involvement in planning and execution would make any difference to maintenance performance. Involvement of a community based organisation is considered quite essential in maintenance of services and facilities.

- (d) Despite a heavy public investment in improving services and facilities, in many Bustees the overall environmental picture is not very different though deficiencies in basic services have been substantially reduced.
- (e) A matching response from the Bustee, in form of indigenous investments in upgrading shelter and other things, normally expected in such a programme, does not seem to be forthcoming readily. Bustee dwellers are watching what CMDA is doing. They are demanding more and also complaining. But seem to be doing little on their own.

4. SULABH SHAUCHALAYA 'BIHAR

67. According to the National Sample Survey, only 20% of urban households in the country use toilets connected with the sewerage system out of which only 7% have exclusive use of toilets and the rest either share with other households or make use of public toilets. 14 % of the households have water-borne latrines connected with septic tanks. Nearly one-third of the urban population is served by bucket privies. Households having no toilets account for the remaining one-third. In India, only about 217 out of 3119 towns have a sewerage system, most of them with partial coverage, although 2092 towns have been provided with piped water supply.

Although more than 19 designs like sewerage, septic tank, hand flush waterseal pit privy, acqua privy, chemical toilet, borehole, dug well, trench latrine, etc., are prevalent all over the world for the disposal of night-soil, only three systems have been found technically fit for adoption on a mass scale in India. These are : Sewerage System ; Septic Tank and Sulabh Shauchalaya.

68. Sulabh Shauchalaya or water seal latrines have relieved scavengers of the unpleasant task of carrying night-soil on their heads for disposal. They require little water to flush—only about two litres—are free from air pollution, provide manure on the spot, can be cleared by the house owners themselves and alternately the two pits can work for many years.

69. The system first started in Patna, then spread to other districts in Bihar and now to Haryana, West Bengal, Orissa, Uttar Pradesh and Andhra Pradesh. The initial work started in 1967-1970 during the Gandhi Centenary Period, as a tribute to him. At the instance of the Government of India, the Government of Bihar, through its Local Self Government Department, directed local bodies to get all the existing bucket privies converted into hand flush latrines and to connect them either with sewer lines or leaching pits.

70. The Government of Bihar gave grants to the Bihar State Gandhi Centenary Committee and the programme kept going but had no real impact. People wanted result-oriented work and not just preaching. Sulabh Shauchalaya Sansthan devised a latrine known as Sulabh Shauchalaya which functions as a flush latrine with or without being connected to a sewerage system. The movement received a shot in the arm when the Bihar Government promulgated an Ordinance in 1970 amending the Bihar and Orissa Municipal Act whereby a blanket ban was imposed on construction of new dry latrines. The new law made continuance of dry latrines a cognizable offence.

71. To help people convert their latrines into Sulabh Shauchalaya, the local bodies aided by the State Government gave grants of Rs. 350 each and a loan of the same amount to those interested. A similar procedure was adopted in West Bengal also. Sulabh Shauchalaya intervened between householders and Municipalities to process each loan application. Volunteers went from door to door persuaded people, had forms filled and processed and after the grant was sanctioned, conversion work started.

72. These latrines can be constructed within a small space of seven feet long and four feet wide and two litres of water is enough to flush out excreta from the pan to the tank. The water seal prevents

gases from leaking out of the pit and all the gases produced in the tank are absorbed by the soil. It can be constructed on a corridor or in an upper floor of a building or even in a bedroom.

73. Sulabh Shauchalaya is a permanent installation which is economical and durable. It can be adopted by both the rich and the poor. The cost of installing a Sulabh Shauchalaya varies from place to place but was generally between Rs. 1000 to 1300 in 1983. Perhaps the biggest advantage is that nightsoil is always underground, inaccessible to flies and insects. As tanks are covered with air-tight and water-tight RCC slabs the place can be utilised for other purposes also.

74. The technique of constructing a Sulabh Shauchalaya is simple enough to enable an ordinary mason to put it up under the supervision of a trained worker. Another advantage with the Sulabh Shauchalaya is that it can work in different soil conditions—rocky or sandy. Although the distance between the water source and Sulabh Shauchalaya largely depends on the soil, the safe distance between the source of water and the Sulabh Shauchalaya in homogenous soil, black cotton soil or sandy soil is suggested to be 20 feet.

75. Till March 1980 about 30,000 bucket privies were constructed and 10,000 more were under process in 1981. In Patna and Ranchi alone about 700 scavengers have been relieved from carrying head-load and provided alternative employments.

76. The system of public conveniences by Sulabh Shauchalaya started in India in 1974 when public baths and urinals were constructed in Patna and Ranchi. The land and finances were made available by these two local bodies. They are now being maintained by the Sulabh Shauchalaya Sans-than and the scheme has since been extended to eight other big towns of Bihar. A 24-seat public latrine was first constructed in Patna near the Gandhi Maidan which was the filthiest part of the town. At present there is a 48-seat public lavatory at this place maintained by the Sulabh International whose head office is also in the same campus.

77. Such public latrines are now maintained by the Sulabh International in Patna at 35 places with a total number of 551 seats. There are 52 urinals and 313 baths. The conveniences are located near railway stations, bus stops, markets, hospitals, offices and other busy areas. Caretakers are posted to ensure all-round cleanliness and also provide soap powder to the users of the toilets. They are required to pay 10 paise as maintenance expenditure. Daily collection from 551 toilets, 52 urinals and 313 baths in Patna in 1980 was around Rs. 2000 per day.

78. The idea is spreading rather fast. Cities like Ranchi, Cuttack and Calcutta have obtained services of Sulabh International to install and maintain Patna type public facilities. The idea has spread to Sri Lanka also. After a study team visited Patna and Ranchi, 800 service latrines in Sri Lanka have been converted into Sulabh Shauchalaya.

Observations

79. Sulabh Shauchalaya is a low cost alternative to capital intensive, expensive to maintain, and wastage prone water-borne sewerage systems and therefore deserves to be adopted in a big way in towns and villages, where sanitary conditions are poor. The technique, if adopted properly, could serve poor people's needs adequately.

80. The success of Patna model where people are paying for the use of baths and toilets is a welcome development for local authorities who usually find it difficult to install and maintain such services. This successful experiment should encourage other cities to follow the example and maintain services better and keep the city clean. It is doubtful, however, that the system of collecting charges from the users of toilet and bath would work in permanent settlements. Sulabh's success in this area is confined primarily to places frequented by floating populations. The system, therefore, may not be a solution for slum pockets. That, however, hardly reduces its importance because even if the system succeeds in keeping the public utilities clean it is a positive step in improving fast deteriorating environmental conditions of towns and cities.

81. Sulabh International's success in spreading its message and its own operations far and wide lies in its organisational form, operational style and the entrepreneurial skills of its leader, beside

the virtues of its simple and low cost technology. Sulabh International is able to overcome many bureaucratic hurdles due to its willingness to accept responsibility and do the 'dirty-work'—not only a contractor's job in building toilets and bath rooms but also maintenance responsibility for an extended period of time in different cities of the country. Almost a similar operation in Ahmedabad—Safai Vidyalaya—though it has silently done some good work in conversion of thousands of service latrines into flush latrines and trained and motivated people to adopt and spread this technology, has not been able to make as strong an impact because it is unwilling to act as a 'Contractor' and insists on its own training and motivational role.

82. Though Sulabh International is quite confident that this method does not pollute underground water sources, some people in Patna think otherwise and are concerned about the possible pollution hazards. A scientific analysis and proper dissemination of findings will help settle these doubts.

5. THE SLUM REHABILITATION PROJECT AT VASNA, AHMEDABAD

83. The Slum Rehabilitation Project at Vasna, Ahmedabad was set-up after a heavy flood in the river Sabarmati (in August '73) swept away more than 4000 slum and squatter colonies situated along its banks. While the Municipal and government authorities and other agencies were engaged in providing emergency relief and settling a few flood affected families in transit camps, the Ahmedabad Study Action Group (ASAG), a voluntary, non-profit, multi-disciplinary organisation run by young professionals submitted, after consulting the affected slum communities, an exploratory proposal for their rehabilitation to the Ahmedabad Municipal Corporation which was already contemplating some action.

84. The ASAG proposal emphasised the following points:

- (a) Considering the possibility that floods may come again and recognising the unsafe nature of river bank locations the people were inclined to move to other location/s in the city provided:
 - (i) such a location was not too far away from their present place of work, and
 - (ii) the alternative accommodation was acceptable and not too expensive. It was also pointed out that earlier efforts to shift people to safer locations had met with resistance as they were forcibly driven out or offered accommodation that would have caused social and economic dislocations.
- (b) For a successful relocation effort participation of the affected people at many stages of the process was necessary. It was also argued that previous attempts to relocate people had not succeeded as decisions which affected peoples' lives intimately were imposed by outsiders without consulting them.
- (c) ASAG stressed that "slums were people not places" that they were more a reflection on attitude towards life than on conditions of physical environment and therefore building houses alone would not solve the problem. ASAG advocated a comprehensive approach incorporating social, economic, educational and motivational inputs, along with housing, that would lead to emergence of an alternative value system and bring about far reaching attitudinal and behavioural changes. ASAG suggested that not merely a housing project but a socio-economic development programme was necessary to 'meaningfully' rehabilitate the flood victim slum dwellers.

85. The Ahmedabad Municipal Corporation decided to adopt the broadbased development strategy outlined by ASAG. The Government of Gujarat, as part of its flood rehabilitation scheme, consented to provide a 43 acre site, seven kilometres from the city centre, together with a subsidy of Rs. 700 per family. OXFAM, a British development aid agency supporting the developmental perspective outlined by ASAG, agreed to provide Rs. 400 per household and an additional sum to support the 'Social Action Component' designed by ASAG. Though the site was outside the city boundary and therefore beyond its jurisdiction, the Ahmedabad Municipal Corporation, in an unprecedented gesture, agreed to provide infrastructural services (piped water, sewerage, street lighting, and roads) and community facilities (kindergarten, school, shops, health and community centres etc.) free of cost. And HUDCO agreed to give loan assistance to meet part of the construction cost.

86. The floods swept Ahmedabad in August 1973. The first brick on the site was laid on 15 May 1974. By the end of September 1975, 2,248 houses, along with water supply, sewerage, street lights, roads and a community centre were completed in a short period of sixteen months. And at present, around 2,400 families consisting of over 12,000 people live in the new settlement meant exclusively for the flood displaced river bank slum dwellers.

87. Vasna project's significance is not so much in its final outcome as in the process. In many ways the project is a departure from the conventional slum clearance housing. In form and content, it is different from previous efforts to house the city's poor. Instead of bulldozing the poor against their will, a negotiated settlement based on voluntary choice of the people has been attempted. Instead of being passive recipients of dole, people have been made active partners in the process designed to foster their entry into the mainstream of city's life from their previous illegal and marginal existence. Instead of providing uneconomic and culturally undesirable multi-storied houses, modest shelters have been built to suit their life-style and paying capacity. Recognising the futility of mere construction projects, social, educational and motivational inputs have been incorporated in the resettlement exercise. An attempt has been made to enhance peoples' income earning capacity and create new employment opportunities that may off-set some of the negative effects of relocation. And through the project an opportunity has been provided to the Government organisations and voluntary agencies to work together and share responsibility in helping the disadvantaged.

88. The Vasna project consisted of two separate but mutually complimentary streams of activities. The first related to building a new township for the displaced slum dwellers—houses, infrastructural facilities and community amenities. And the second, stream of activities related to building people—a self-respecting, self-reliant new community out of unrelated and scattered clusters of displaced slum dwellers. In building the township emphasis was on (a) peoples' choice (b) peoples' role and (c) replicability. And in building people, the tool was 'Social Actions Component' (discussed elsewhere).

89. Attempts were made to involve the slum communities, which were spread along the river in 23 clusters, in the design of the house and preparation of the site lay-out. A few schematic, preliminary design outlines were evolved based on the feedback studies of earlier housing efforts and expressed needs of the target community. Scaled models of various alternative design possibilities were taken to different settlement clusters by a group of community workers and architects. These plans were discussed with individual families, neighbour groups, and recognised leaders. Their reactions, comments and observations resulted in many changes in the design and the lay-out.

90. Participation in the construction work was optional and voluntary. Only 19 per cent of the families who could be contacted indicated willingness to take part. Others found it difficult due to lack of construction experience, higher paying jobs elsewhere or physical disability for manual labour. Yet, about 130 consenting families were moved to a transit camp near the site. They worked for some time building houses but for various reasons their number also dwindled gradually.

91. At Vasna, instead of multi-storey tenements, only single storeyed, low cost (Rs. 11.25 per sq. ft.), low specification houses have been constructed. Each family has been provided a 300 sq. ft. land plot on which a house with plinth area of 248 sq. ft. has been built. The house includes a multi-purpose room, a covered verandah, an alcove each for cooking and storing, a bathroom, a toilet shared by two families and the backyard shared by four. Running water and regular sewer lines are also provided. The house has an asbestos cement roof and 9" brick walls in cement mortar. Mud and cow dung have been used to plaster the floor and walls. Outdoor living being an important aspect of people's life style houses have been built around large, interlinking community courtyards. On an average, a courtyard for eight families measures about 40' x 52'. These courtyards have become focus of family and community activities.

92. Much before the first family moved to the new township, the complexities involved in allotment of houses was realised by the project planners. Loss of identity, social dislocation, lack of co-operation and even hostility among neighbours in a newly-built community are often attributed to faulty allotment of houses. At Vasna, the risk was unusually high. Approximately 44 per cent of the eligible families were Muslims and the remaining Hindus. Segregate them in different blocks on account of known history of hostility, tension and conflict between these groups would have meant perpetuation of prejudices and loss of opportunity to achieve some kind of social integration. On the other hand, to mix them together indiscriminately would mean running the risk of conflict. The age old practice of drawing lots was not only improper but in this case, also dangerous.

93. It was therefore, decided to leave the choice of neighbours to people themselves. Each family was given option of choosing its own neighbours. In a complex socio-metric exercise, spanning over nine

months. the families were asked to make their own decisions in choosing neighbours who would share their toilet, backyard and courtyard. It was a lively and stimulating experience in group behaviour. Through the dialogue that ensued, people learned to weigh their options, use their discretion and make decisions. More importantly, they learned to accept responsibility. Not many in Vasna can complain that they are saddled with unwanted neighbours.

94. The special feature of the Vasna project is its 'Social Action Components', necessitated by the project participatory nature and its emphasis on the wider concept of human development. The Social Action Component, conceived as an integral part of the resettlement process, was designed with the following objectives in mind:

- To organise and mobilise people in needs and issues,
- To solicit community participation in decision-making, problem solving, resource raising, etc.,
- To rectify social and economic dislocations caused by change in the location of residence and business,
- to enhance productive ability and earning potential of the people by skill upgrading, training, credit referral, new job opportunities and other assistance,
- to strengthen community organisations and institutions.
- to organise delivery of basic social services.

95. Trained community workers were the agents of change under the social action component. In the early pre-action stage, the community workers were carriers of information and channels of communication. After establishing rapport with the slum communities, they initiated an on-going dialogue, explaining the project objectives and observing reactions of the people. They prepared them to participate meaningfully. Even when people were in their make-shift shacks on the river, the community workers created a climate for intensive involvement through programmes like enrolment of drop outs in nearby schools, regular health check-ups and income-supplementing activities.

96. During the planning stage, collective decision-making was facilitated by community workers. They sought people's views on selection of site, design of the house, design of community layout and other matters. During the transfer phase, the community workers helped people solve their problems of adjustment. In the post-occupation and maintenance phase, new leaders were identified and trained for self-governance; Groups and sub-groups were formed around issues to form popular opinion to take action for the resolution of problems. Formal and indigenous organisations were activated and people were helped in institution building and to develop management skills. The community workers also helped in organising, maintaining, and assisting income supplementing activities and on-going impact and need surveys to provide feedback information for altering or modifying the involvement strategy.

97. The community workers were aware that they were outsiders, that their role was only transitional, that their function was not to replace people's initiative by their own, and that they were initiators or facilitators and not the doers. One of the criteria in designing activities at Vasna has been the period of withdrawal of external resources, human as well as material, since the dependency factor was crucial in assessing success or failure of the undertaking.

98. In the earlier stages of the project, it was thought that a change in the place of living would result in some economic hardships. Repayment of housing loan, increased cost of living due to improved services and better access to social amenities, higher transportation costs involved in maintaining the social and economic ties with the previous place of residence, and loss of job opportunities due to increased distance, were considered some of the factors responsible for additional financial burdens on those who moved. To prevent sub-letting and shifting back to the old settlements; to avoid a drastic cut in the essential needs of life like food, nutrition and education; to meet the new obligations and, more importantly, to sustain the process of change and development initiated primarily through outside intervention, it was considered necessary to start income generating activities as an integral part of the housing programme. The additional monthly financial burden was estimated at Rs. 35, which meant approximately Rs. 1 million per year for all the 2,250 families. Since it was impossible to generate an additional income of Rs. 1 million, a selective approach was adopted and it was decided to work with 300 families, whose income was below Rs. 250.

99. Many activities were started. At a training and production centre seventy women were trained and fifty of them earn Rs. 5 a day now. Their products—cushion covers, shoulder bags, bedspreads, wall hangings, etc.—are accepted in the local market and also exported. After about seven years the activity is still going on as a local women's cooperative. The sewing centre, in addition to upgrading the skills of the workers tried to obtain work orders on a collective basis. Through the intermediary credit referral services provided by the project, about 215 people were given loans by the banks. Approximately eighty-five of them were small entrepreneurs; others had borrowed money to purchase bicycles to continue their earlier income generating activities in the city.

100. An attempt was made to develop a low cost health delivery system through community level para-medical health workers. The three-tier arrangement which emphasised preventive health care and health education was intended to reduce dependence on highly qualified professionals who are expensive and not easily accessible. Ten community health workers were trained to supervise health care services under guidance of a qualified nurse and four doctors. After about two years the scheme had to be wound up for several reasons.

101. The community workers, in co-operation with the district panchayat, started a primary school—present enrolment 550 children—immediately after the families began moving to the new township. Though the inadequacies of formal education—particularly for this community—were recognised, for obvious reasons the project could not accept responsibility of creating an alternative educational system for the entire community. However, through 'Sarjan', an experimental education programme for the pre-primary and primary school children, opportunities are offered to bring out the creative abilities of children. They are provided simple tools, newspapers, discarded tooth brushes-charcoal, colour, water bowls, etc.—to express themselves creatively in drawing, painting, music and other media. The response on the part of the children and their parents is overwhelming and, what is more important, a qualitative change is apparent in their behaviour and performance. The school teachers maintain that the children involved with the 'Sarjan' programme are far more attentive, display leadership qualities, perform better in the class work, attend school regularly, are more disciplined and comparatively more motivated than others.

102. In the initial stage of all these activities the project inputs—human as well as material—were substantial, but the process of building peoples' own organisation is still going on and efforts were made to delegate responsibility for their management and maintenance to the people themselves. Community workers and others support personnel were involved in training local people to assume more and more responsibility. Though the plan to withdraw all project inputs by 1978 sounded somewhat ambitious at that time the withdrawal did take place as planned. The success of the social action component was to be measured by one criterion—its ability in preparing people to manage their own affairs.

Observations

103. There are in-built difficulties in an ambitious attempt to relocate some 12,000—13,000 people, and these are even more when the target is not only relocation or rehabilitation, but development. Many of these difficulties are transitional in nature. Some of them are related to the sharply rising expectations of the people due to a sudden and dramatic change in their living environment. Some of the problems have roots in inter-group rivalries and local politics, and a few are due to the lack of administrative and organisational arrangements to deal with the new issues that arise. Some problems are there simply because designers made mistakes and others because the modest shelters at Vasna do not fit into people's long cherished dream of a pucca, cement-concrete house.

104. There are complaints, protests, threats, and demonstrations. Though not a single family was moved under coercion of any kind, a few, unable to accommodate and adjust, have moved back to the slum on the river. There was some corruption in the allotment of the houses and even though the guilty were brought to book, the relationship between the municipality, the community and ASAG became strained. The municipality has not been able to fulfil its commitment to build a community centre, primary school, health unit and shops. People complain about the inadequacy of water supply malfunctioning of the drainage system and frequent blackouts due to the failure of the street lights. There is a stalemate in the completion of the remaining work as occupants are refusing to pay the rents and the municipality is insisting on the payment of arrears and the promise of regular payment as a precondition for a dialogue. As the municipality has not been able to control a 'nala' that cuts across the site, there are floods in the area during the monsoon.

105. There is no end to complaints that the houses are inferior and allegations that the project funds have been misappropriated. Inter-group rivalries and bitter competition for power and leadership prevent people from presenting a united front and this weakens their bargaining power with the establishment and reduces the effectiveness of the developmental process. Community workers find people slow to respond while the experts on community development feel that the over-enthusiasm of the community workers to show results tends to make them forget their facilitator's role as they replace the people's initiative by their own. On the other hand, there are many who think that efforts through the social action component to alleviate the effects of the dislocation caused by the shift in residence and to create a base for sustained development, are very inadequate.

106. Yet, at Vasna, a living community has come into existence. The people have already made sizeable investments in improving and modifying their houses. Although the municipal shops are yet to be built, they have, on their own, opened about fifty shops in the front verandah of their houses or have erected wooden stalls in public places. Even though the school has not yet been built, parents are eager to get their children enrolled in it. The people are organising themselves to redress their grievances. They make periodic representations to whoever is in authority about what they feel are their problems. At one stage, they staged a dharna, stopping all buses on the road and secured their long-standing demand for a bus stop within the township. Two year's ago, a group of concerned member of this community filed a civil suit against the Government of Gujarat, the Municipal Corporation and the project Committee for failing to fulfil the promises made to the people. As one community worker, who refused to be daunted by anything less than 4,500 problems (his formula for normalcy is of a minimum two problems per house) put it : "The Vasna Project like any other programme of its kind is not without its weakness and failures. Had it been only a housing efforts, the problems would have been fewer; had the people been treated as faceless masses, subject to the dictates of the planners and the government, the difficulties would have been even fewer. But Vasna project is not merely a housing project. It is an attempt to initiate a process of development. It has started by saying that 'slums are people not places' ! It has attempted to meet human needs rather than housing needs, It is learning laboratory, an experiment. And no experiment is a failure if one learns from it."

107. Is the Vasna Project successful ? Does it provide a replicable model ? These two questions are constantly asked by administrators, planners, social scientists and funding agencies. There is no easy answer.

108. Seen as only a housing project for slum dwellers and compared to past and present Government efforts to house the poor, the Vasna project may seem an impressive and unqualified success. In comparison to the snail's pace at which housing projects generally move, to have completed 2,250 houses and infrastructural services in just sixteen months will certainly appear remarkably efficient. Construction costs remained very economical at Rs. 11.25 per sq. ft., and overheads were held at a minimum about 5-7 per cent since the project work was not given to contractor, as compared to the 12-16 per cent agency overheads normally charged for mere supervision. All this makes the Vasna project unusual, innovative, and successful.

109. But housing was only one of the components of the Vasna Project. The second goal of the programme was to 'build people'—to stimulate a social and economic transformation in a former slum community, to facilitate a development process that would ultimately become self-initiated and self managed. In this respect, a judgement may be too premature although some positive signs have begun to manifest themselves in the community. According to a study which evaluated the people's response to the project, they have become more involved in the Government system, vocalise their demands more forcefully to the local authorities, appreciate the value of education and cleanliness, are in the process of integrating more scientific explanations of reality into their traditional beliefs, are rejecting money lenders for banks, increasing their savings, and investing in their homes and new business, are buying more consumer durables, aspire to a higher standard of living, and have a more positive outlook towards life.

110. But, the study also indicated a leadership crisis : a continuing reliance on outside agencies for the maintenance of public spaces ; inadequate care given to children and a continuing high rate of malnutrition a less than impressive participation in the socio-economic programmes ; a relatively high incidence of crime ; underemployment and unemployment especially among women ; less leisure time spent as a family and a community ; and a lower level of security due to the separation from relatives and friends in the city.

111. An important criterion in any evaluation of the project would be the capacity of the Vasna Project model to be replicated. The Vasna Project would be a failure if it only solved the problems of 2,250 families at Vasna without providing clues as to how it could be applied to solve comparable

urban situations. In the course of the Vasna Project, it was realised that economic viability is just not possible so far as housing for the poor in metropolitan areas is concerned. In Ahmedabad, where 84.5 per cent of the housing shortage is among families earning less than Rs. 250 per month, a substantial subsidy will certainly be required for low income housing projects for a long time to come. Although the rate of subsidy was significantly less as compared to other Government projects, and although this subsidy was shared between several Government and voluntary agencies, the Vasna Project still had a 65 per cent subsidy component. This certainly makes it doubtful, given the non-availability of resources to match the awesome demand, whether the Vasna Project can be replicated on a sufficiently large scale. This suggests that a project-mix emphasising in situ environmental improvement, and Sites and Services schemes may be a better alternative. However, in some situations, housing will be required, as in the case of Vasna Project where the continual threat of floods made the original location on the river/bank unsafe. Under such circumstances, where the necessary subsidy is available, the Vasna Project could provide a model.

112. Housing can become a tool for development and change if resources are available for a social action component. This could be accomplished in any of the three ways. First, funding institutions with a strong developmental orientation could be tapped to implement the socio-economic objectives of the development project. However, such funding agencies have a limited capacity and cannot be relied upon exclusively. Second, Government housing projects could adopt the Vasna Project construction model which has substantially lowered overheads by eliminating the contractor. These savings in construction overheads could then be creatively diverted into a social action component. Third, substantial efforts could be made to integrate existing community development programmes into housing projects to produce a comprehensive development approach. Again, such co-ordinated planning efforts could use the Vasna Project as a flexible model upon which improvements could be made in stimulating a sustained process of development.

113. Resources, notwithstanding, appropriate institutional and implementation mechanisms are required if the Vasna Project model is to be replicated. An inter-institutional arrangement in which there is a climate of faith, mutual trust, and co-operative understanding between Governmental agencies and voluntary, people-based, grassroots institutions is absolutely necessary so that development can become people-oriented. This requires Government agencies to be 'open' and include voluntary organisations, as intermediaries and facilitators, in their housing and development programmes. Equally important is the need for voluntary agencies to become truly involved in the development process—to gain experience, develop expertise, to become the people's advocate. Only then can the development model of the Vasna Project be capable of replication.

114. Finally, is the concept, ideal and spirit of the Vasna Project repeatable? It must be. For physical inputs are grossly inadequate to deal with the problems of slums which remain essentially attitudinal, political, behavioural, economic, and social in nature. Housing is only an entry point into the community, but the emphasis is on the process of development. This, if nothing else, is the most important statement that the slum Rehabilitation Project at Vasna has made.

APPENDIX II
CASE STUDIES OF HOUSING INVESTMENTS BY THE POOR

CASE STUDIES OF HOUSING INVESTMENTS BY THE POOR

INTRODUCTION

1. The following case studies illustrate many of the factors which inhibit the poor from making housing investment, which are discussed in Chapter IV. The households that were interviewed, stay in two settlements, Ganeshnagar and Bibwewadi, in Poona.

2. Ganeshnagar is a squatter settlement which started in 1969 and occupies a piece of government-owned land. Its present population is nearly 9,000. A large majority of the residents work in industrial and service sector jobs. Their relative economic stability is reflected in the quality of their shelter, some of which have been improved to form almost 'pucca' structures.

3. The Pune Municipal Corporation (PMC) 'improved' the settlement in 1975 by way of concreting pathways, constructing open drains, building aqua-privies and providing water taps. The Community is a remarkable case of organization. With careful vigilance it maintains a sanitary environment in the settlement and controls its development. The residents have full faith in the elected local leadership (community organization) which they firmly believe is working for their welfare.

4. In the case studies, the anxiety caused by their unauthorized status comes out clearly. Those who have invested money in housing have done so on the basis of the strength of the number of other families in similar circumstances and on the basis of their faith in their community organization, which they believe will lead the residents in a united action against any threat.

5. Bibwewadi is a sites and services scheme sponsored by the Municipal Corporation. There are 500 concrete bases spaced apart, each measuring 10' x 15', and communal water taps, latrines and bathrooms, on the site which is located near the southern boundary of the city. Residents from three different shanty settlements in the city were moved to this peripheral location in the mid-1970s, without being offered any alternative location.

6. They are tenants of the Municipal Corporation each pays a monthly rent of Rs. 18/-. A number of them have large amounts of rent arrears. Some of the rent defaulters have been evicted in the past, some moved away because they could not pay the rent or considered too high the price of staying at such a remote location from the job market. The quality of houses on the site is diverse. Some are bare minimum shelters, a few of which do not even cover the full extent of the area of the concrete base; a small number of the houses are much improved with an attic or a mezzanine and a balcony, which increase the usable space. Some have built extensions in the side, open spaces and front, but the construction is such that it can be dismantled without much difficulty and the materials can be reused. This caution is prompted by the fear that the authorities may raise objections of such extensions.

7. The diversity in the quality of shelter reflects the disparity in income distribution and access to finance. In spite of their regular tenancy, in the absence of a possibility of raising at least a small amount of money, the very poor in unstable and casual employment have not been able to improve their shelter much. Although they are legal tenants, some of them do not regard it as adequate security of tenure for investing money from the viewpoint of creating an asset. They have formed a co-operative society and are making efforts to get the land ownership transferred to the society. There is no other community organization; it remains a disparate group.

8. The interviews which form the basis of these case studies brought forth vividly the attitude of mistrust of the poor—especially the less worldly-wise among them—towards any one making inquiries about their circumstances. The first reaction in many cases was of fear, secretiveness and sullenness. Only after they were satisfied that we did not represent any kind of 'officialdom' did the respondents open up. Even then, as in the case of the Gajarmal family in Ganeshnagar, traces of suspicion and mistrust did linger right through the interviews.

9. There is a sense of vulnerability and distrust which the poor feel vis-a-vis authority, which comes through in some of the case studies. The poor and less educated often feel an inadequacy to deal with official procedures and feel threatened by them.

A. Ganeshnagar Case Studies

(i) *Shamiuddin Kazi*

10. Kazi, in his early—to mid-twenties, works as a spray painter in Bajaj Auto. The household comprises five members—Shamiuddin's mother, wife, a younger brother who is a bachelor, and an unmarried sister. They moved to Ganeshnagar about 14 years ago after Shamiuddin's father died. Their previous residence had been the Range Hill area, tied to the father's job at the ammunition factory. After his death they had to vacate the place.

11. Their first residence in Ganeshnagar was a hut rented from one Parubai Chavan, a licensed stall-holder in the vegetable market who owns a number of such houses (4-6) in Ganeshnagar. The Kazis fourteen years ago paid a deposit of Rs. 150.00 and a rent of Rs. 25.00 per month.

12. They built their own house on the present site about six or seven year ago. This was the typical Ganeshnagar shelter, with walls made of corrugated iron sheets and a roof of Mangalore tiles. Some improvements were made during the first five or six months. This house was built by a hired carpenter. The materials were bought in Bhauani Peth and were all new. Six month ago, five years after its initial construction, the house was upgraded to its present condition. It is now a pucca construction with brick masonry walls and Mangalore tiles (reused). There are two rooms in a covered area 11 feet by twenty-one feet. One serves as a sitting room and one as a kitchen. The entire space doubles as sleeping quarters at night. The height of the structure is generous, about 16 feet, at the edge of the roof. A mezzanine or loft over the sitting room gives into a kitchen and is used as space for drying clothes. Shamiuddin gave some indication that when his younger brother got married the loft might be used as an additional room. The kitchen has a proper cooking platform finished in polished stone and glazed tiles. A little "mori" at one end of the platform serves as a washing and bathing place and there is provision for the storage of water.

13. The floor of the house is paved in cement tiles. The doors and window are in panelled teak, neatly oil-painted. An interesting feature is the artificial ceiling of the sitting room, designed to disguise the fact that there is a loft above. The lighting fixtures in this room are sunk into the ceiling.

14. Shamiuddin reported having spent around Rs. 27,000 on the upgradation. His sources of finance were diverse : the family's savings; a loan of Rs. 3,000 from his Provident Fund ; Rs. 4,000 loan from the Bajaj Employees' Cooperative Society; some money from his father's dues from his job; amounts from fixed deposit accounts created by his grand-father in the names of Shamiuddin and his brother and sister; the proceeds from the sale of his mother's ornaments; and personal loans to the extent of Rs. 5,000 from two friends.

15. Asked whether he knew of the necessity to seek official permission to build, Shamiuddin replied that he had only sought the advice of the chairman of the Ganeshnagar association (which is a registered body) and the latter had assured him that he could go ahead. He did not seem to be aware of the official procedures for seeking permission to build.

16. Finally, we asked Shamiuddin how, given the illegality and insecurity of his tenure on the land, he had taken the risk of investing so heavily in the construction and upgrading of his house. Was he not afraid that, in the event of his eviction, he would suffer a substantial loss, as little of the material he had invested in was recyclable ? He replied that he had taken a calculated risk. Firstly, he had seen others in the neighbourhood, whose tenure was as insecure as his, investing in the improvement of their houses. Secondly, he was aware of the case of another settlement, Jai Jawan

Nagar, where residents were served eviction notices but nothing came of it. Thirdly, the Municipal Corporation had invested in drainage and in paving and lighting the streets in the area, which he felt was a sign that they would not in a hurry undo what they had done at great expense. Fourthly, the issue of identity cards to slum residents and of water rate notices more recently, were to his implicit assurances that he would not be evicted. Finally, he had enough faith in the community organization, and its chairman to stand by him should the worst happen.

(ii) *Punwatkar*

17. The Punwatkar family, consisting of a formally employed couple (he is PA to the Director of Social Welfare, she is with the PWD) two children and now a niece who had joined them, came to Ganeshnagar in 1972. Earlier they had rented accommodation in Ambedkar Society, where for approximately 80 sft. of space they were paying a monthly rent of Rs. 40.00.

18. The first structure they built had corrugated iron (CI) sheets for walls and asbestos cement (AC) sheets for roofing. The earth itself formed the floor. The cost, in those days was about twelve hundred rupees for approximately 120 sq. ft. The major part of the investment came through a loan from Mrs. Punwatkar's mother. The first upgradation was done around 1977-78. While the original AC sheets were retained from the roof, the walls were built in brick up to window sill height (windows were introduced at this stage) and CI sheets retained from there on up. Flooring in IPS was introduced. A small extra room of about 120 sft. was added. This addition and upgradation cost about Rs. 7,000. Finances were obtained through loans against the couple's PF accumulation. Since they had no legal tenure, they could not qualify for the non-refundable housing loan which is available to PF account-holders. Instead they had to borrow "for medical treatment", and repayment had to be made in the short span of three years. The upgradation, to a "Pucca" shelter, was done a year back. This comprised, while retaining the original AC sheet roofing, walls built entirely in brick, stone slab flooring, panelled teak doors and windows. The present house consists of two rooms about 9 ft. x 14 ft. each. One of them serves as a kitchen and has the necessary facilities of cooking platform, water storage and a little space for washing and bathing. The provision of an independent water connection cost Rs. 1,000 which was paid to the Municipal Corporation. The CI sheeting rendered surplus from the earlier structure was utilised for creating an annexe to the main house. This is used for parking of two-wheelers and for dead storage. During the two weeks which it took to carry out these changes, the Punwatkars went to stay with friends nearby.

19. The upgradation outlined above cost around Rs. 12,000. Once more a loan for "medical treatment" was taken against PF accumulation, and like the earlier loan, it has to be paid back in three years. The Punwatkars' monthly outgoings towards this are Rs. 250, Rs. 150 from his salary and Rs. 100 from hers. Mr. Punwatkar, in addition to his regular job, works a couple of hours in the evenings at teaching shorthand in a nearby typing school, so that he can cover these extra outgoings. Being a socially ambitious and upward mobile couple, they send their children to English-medium schools. This must also impose an additional strain on the family finances. We asked Mrs. Punwatkar, who was the respondent to our interview, about the process of obtaining permission for building expansion or upgradation of structures in Ganeshnagar. She replied that the matter is referred to the chairman of the community organization, who visits the site along with other members of the managing committee, and ascertains on the spot the nature of work to be done. Residents of neighbouring houses are informed and asked to specify their objections, if any. If these are found to be genuine, ways and means of getting around them are discussed. Only when a consensus had been reached between all parties concerned does the work of construction begin. Mrs. Punwatkar asserts that no one defies the committee's decision.

20. We also sought Mrs. Punwatkar's views on the importance of legality of tenure. As the wife of the secretary to the community organization and herself an educated, working woman, we found her both perceptive and vocal on the subject. She said that while the risk of eviction was always technically there, there was little risk of such an eventuality actually occurring. She mentioned the investment by the Municipal Corporation in improvements as one reason for this reassurance. More importantly, however, she felt that the unity of the community and the strength of its leadership were important factors in ensuring its survival.

21. She did feel, however that legality of tenure was in the long run an important consideration. Towards this end, she indicated that the proposed water cess charge to be levied by the Pune Municipal Corporation for which they had been served notices, should instead be collected as ground rent, which would be more reassuring.

(iii) *Jadhav*

22. Mr. Jadhav owns a shop in Ganeshnagar, which is attached to his residence. He has lived in the locality since 1971. During his first year there he lived in rented accommodation which cost Rs. 25 per month in addition to a deposit of Rs. 200. There was no electricity, and water had to be bought.

23. Before coming to Pune in 1971, Jadhav had a job as storekeeper at the Polytechnic in Buldana (Vidarbha). Owing to reduction in staff he was transferred to the Engineering College in Pune, with a transfer allowance of Rs. 800. A year later he was declared redundant. He made a representation to the Department of Technical Education, opting for employment as a Class IV worker rather than giving up his job. He was told that, as an SSC he was overqualified for that job, but his plea was considered nonetheless. This took a year, during which time he took up the occupation of an itinerant fruit vendor, selling guavas.

24. In 1972, after living for a year in a rented hut, he decided to build his own house from the Rs. 800 received as transfer allowance. He staked out a piece of land and, in bits and pieces, put together a shelter using Galvanised Iron sheets for wall and Mangalore tiles for the roof. All the material was recycled. The sheets (used) were bought at a premium price of Rs. 130 each. This was when the control rate for new sheets of the same quality was Rs. 80. There was no paving on the floor.

25. In 1973, a year after he built his own house, Jadhav decided to change over from itinerant vendor, to shopkeeper. He added a room to what he had already built and part of it, opening out into the open was converted into a grocery of sorts. Having thus stabilised himself to some extent, he undertook to train his illiterate wife to share the responsibility of running the shop. Today she is practically in charge of the business.

26. All the additions, alterations and improvements made by Jadhav have been piecemeal and gradual, dictated more by necessity than by a plan of improvement. Thus it is not possible to precisely date or cost the development, nor to identify definite "stages" in the process. What he now has is, in addition to the two rooms already mentioned (the first being about 9' x 12' the second about 12' x 14'), a separate, clearly demarcated space about 4½' x 9' for the shop. This was originally built as a detached unit, about 4 ft. away from the first room, but now the space in between has been roofed over and is used for washing and water storage. The entire structure forms an integral unit, covering about 300 sq. ft. on the ground.

27. Fairly early in this process of development Jadhav made the rather unusual change from a Mangalore tile roof to a corrugated iron one, opting for the relatively more uncomfortable of the two in terms of heat transfer. He explained that this was due to the relative vulnerability of tiles which are susceptible to breakage and involve recurring cost of maintenance.

28. Over the years the walls have been converted, one by one, from GI sheets to brick and mortar. Here again, necessity was the overriding consideration. The first brick wall was built because it was deemed as a prerequisite by the MSEB for providing an electric connection. GI sheets representing the risks of short circuit and electrocution, the metro board had to be installed on a non-conducting surface. Subsequent masonry walls were also constructed one at a time, usually by night and without foundations or on holidays, for fear of the construction being stayed or demolished by any Municipal Corporation officials who might chance on it.

29. Somewhere in the mid-1970's Jadhav got reinstated as a storekeeper at the Poona Engineering College and now earns Rs. 1000 per month. In addition to this he has the shop, which is run as indicated earlier, primarily by his wife, with himself and his grown up son devoting to it what time they can spare. But in spite of this relative stability, Jadhav has not made any remarkable improvements in the quality of his shelter, other than putting in stone flooring. The rooms are untidy and dingy, with not even an attempt at a clear demarcation between the various activities associated with living. Living, cooking and storage mingle in merry disorder, and the shelter itself seems to be looked upon as something 'necessary' rather than 'desirable'. The unplanned nature of his improvement of shelter is strongly reflected in this. We asked Jadhav how he felt about security of tenure. He said that it would be an advantage if something could be done to ensure the right to transfer ownership of shelter to his successors. Other than this, he fatalistically observed that, in the event of eviction, from the present site, he had nowhere to go. With

the kind of life of uncertainty and insecurity that he had lived, he was not afraid of anything that fate might have in store for him. In any case, he was not alone. There were so many others like him, and whatever happened the problem would be everybody's, not his alone. Nonetheless he does consider the lack of tenure as "a hanging sword" and wishes he could feel more reassured on this count.

(iv) *Gajarmal*

30. The Gajarmal family came to stay in Ganeshnagar just three years ago, after the head of the household retired from his job in the Kirkee ammunition factory and had to vacate his job-tied accommodation at Range Hill. He had acquaintances living in Ganeshnagar, from whom he learnt that it was possible to buy a ready-made, illegal shelter in the area. What he bought was a hut with GI sheet walls, Mangalore tile roof and rough Shahbad flooring. The main space is 14'x9', from which 4½'x9' is identifiable as kitchen, with a cooking platform and terrazo tile flooring. Annexed to this main space, there is a washing cum-storage space of about 3'x9'.

31. The household consists of six members—Gajarmal and his wife, three sons and a daughter. A fourth son, the eldest, is married and lives separately. Of the three sons sharing the accommodation the eldest is employed in the P & T department on Rs. 350 p.m. This, together with Gajarmal's pension of Rs. 250 p.m. makes up the entire income of the family. The next son has just completed his B.Com. and is looking for a job. The youngest is still at school. The daughter has completed her SSC and is engaged to be married soon to a man living and working in Bombay. She had a job offer to work as a Balwadi teacher in Ganeshnagar, but the family was not enthusiastic about the idea. The brothers saw it as an aspersion on their masculine duty of providing for their sister. The parents saw it in more pragmatic terms, as the potential loss of useful help around the house. Because of Mrs. Gajarmal's age and failing eyesight, the daughter has to bear the brunt of household chores.

32. In interviewing the Gajarmal family we came across the typical mistrust of the poor towards any strangers asking questions. While Mr. Gajarmal was quite open and trusting, his wife more than once expressed apprehensions about his giving us the information we sought, and said that her sons would disapprove of their having given us this information. She repeatedly asked how the information was going to be used, and what, if anything, they were going to get out of it.

33. Mr. Gajarmal told us that he came from a village in Mulshi Taluka, and was the first person from his family to get away from agriculture and to come to work in the city. The family still had their ancestral land (about 5 acres) in the village but it was tilled by Gajarmal's cousin, and Gajarmal himself, though the principal title holder, was not getting any share of the proceeds from it.

34. The job with the ammunition factory was the only one Gajarmal had held during his thirty-two years of service, and it had carried with it a two-room quarter at Range Hills. The furniture crowded into Gajarmal's present premise—notably a steel almirah two cots (one permanently folded away for want of space) a folding steel table and chairs bears testimony to the relative generosity of space in his former job-tied residence. He started his career on a salary of Rs. 60 per month, and was earning for Rs. 600 when he retired.

35. Although he was fully aware that he would have to vacate the job-tied accommodation on retirement he was never able to save towards the ultimate acquisition of a house for himself, because of the expenses of running the large household. When he finally retired, there was no alternative but to buy the present house for which he paid about Rs. 5000. The amount came out of his GPF. He did not borrow anything. He has not invested in any significant improvements during his three years of residence here. He mentioned a private water connection as a high-priority need (but his wife and daughter did not think so. They feel that the water supply at the community tap near the house is abundant and because of a rule made by the managing committee that there should be no washing or bathing at the community taps, there was no inordinate waiting for one's turn in the queue. But the expenses involved in getting one (around Rs. 1200) are an inhibiting factor. So also is requirement of the PMC that the house has to be in his name (i.e. there must be an identity card which names him as the official resident of the house) before an application from him for a tap can be considered. He has neither the means nor the inclination to make any investment in the absence of security of tenure.

36. We asked Gajarmal whether the identity card issued after the 1976 slum census had been changed to his name. He said that it was still in the name of the previous owner, but that some process of transfer was in progress. He was not quite sure what. His son was dealing with it.

(v) *Mahadu Shankar Gonellu*

37. The Gonellu family are originally Telugu-speakers from the Sholapur district where it borders on Andhra Pradesh. The younger generation, eager to obliterate their "foreign" identity, changed the name to Gonewar, and now Mahadu Shankar also uses that form socially, though on paper he continues to be Gonellu.

38. They live in a room 9' x 12' which is part of a row of back-to-back rooms (total 8) built in the early seventies by one Gaikwad for the purpose of renting out. Mahadu has been staying here since 1972. He paid a rent of Rs. 15.00 per month until 1977. Then, towards the end of the Emergency, the Ganeshnagar Mandal exhorted all tenants to stop paying rent in keeping with the Emergency dictate that the occupier of a house is the owner. Around the end of 1980, Mahadu paid a lumpsum amount of Rs. 500 to Gaikwad and officially became the owner.

39. The room has a front (external) wall built of crude wooden slats, and three party-walls constructed in opened-out tin cans. All the walls are whitewashed, some gaps in the wooden wall are slated with mud mortar, and those in the party-walls with cardboard. The roof is in CGI sheet, about eight feet high at the ridge, which is lined over the rear wall. The floor is in mud-and-cowdung plaster. The only opening is a wooden door set at one end of the front wall. A slight depression in the floor, just inside the door, is used as washing and bathing space, and the water is drained out through a hole in the threshold, into the open drain outside. Because of this kind of washing space, as also because of seepage from the ground and leaks in the roof, the floor gets damp and soggy during the rains. Three years ago, before he got ownership of the room, Mahadu replaced some four or five sheets in the roof at a cost of about Rs. 400. The sheets were bought in Bhavani Peth. Apart from this he had not made any improvements during his entire stay.

40. The house is sparsely furnished. A wooden plank supported on brackets on the rear wall a wooden rack, 3 ft. by 4 ft. along one end wall, a tin trunk and small earthen platform along the front wall are the only solids that intrude in the space.

41. The family consists of Mahadu (50), his wife (44), and five sons, aged respectively 22, 20, 15, 12, and 7 years. Mahadu works in the Khadki Ammunition Factory, earning Rs. 800 per month, out of which Rs. 300 goes towards the repayment of a long-standing loan. The original loan amount was Rs. 500, taken from a private source during a family emergency at the crippling interest rate of 12.5% per month. This high interest coupled with Mahadu's inability to keep to the repayment schedule, caused the outstanding amount to inflate considerably, and it stands today at Rs. 1,500.

42. The eldest son, who has studied up to the eleventh standard, has recently found a temporary job as supervisor at a small factory, and earns Rs. 70 per week. Mahadu is keen that he find a stable government job, and does not intend to let him marry until he does. He sees "no point in spoiling the life of some poor, innocent girl by bringing her as daughter-in law into a home which is financially insecure". The second son is mentally retarded and "wanders around begging". The third son has a job as waiter in a small restaurant, and is paid Rs. 50 per month and given two meals. He comes home only to sleep. The fourth son goes to school. The youngest does not. Mahadu's wife is in poor health and does not work except at running the home to the extent her health permits.

43. Mahadu, who has not been to school at all, came to Poona from Sholapur in 1940. After working for two years as a casual labourer on an army construction site in bundh, he found a job at the Ammunition Factory during the mass recruitments in 1942. He was retrenched at the end of the War in 1945. He got back the job in 1949. During this time he was staying in a hutment near Aundh. In 1954 he was transferred to Jabalpur. On being transferred back to Poona in 1960 he stayed in a hutment in Vaitagwadi. He heard about Ganeshnagar and about Gaikwad's rental accommodation from a fellow worker in the Ammunition Factory, and moved there in 1972.

44. It was only after his return from Jabalpur that Mahadu married and had a family. We asked him how it was that he, who had voiced so much concern for the welfare of his would-be daughter-in-law, had not given similar thought to the welfare of his wife and the well-being of his family when having five sons. He replied that his wife was keen on having a daughter, so they kept on having children until they realised that they had five mouths to feed, and still no daughter. His wife countered this with the emphatic assertion that she had wanted a tubectomy after the third child.

but her husband refused "to sign the paper" allowing this. Finally, after the fifth child, she went and had it on her own.

45. The Gonellus have always found it difficult to make ends meet, both because of the size of the family and also because of the wife's poor health, requiring frequent medical treatment. Mahadu himself is a very frail person, with a tendency to asthma. Loans have been a part of his life for a long time. He does not smoke, drink or have any expensive tastes. It is mainly out of a genuine concern for what would happen if he should suddenly have to stop working or, worse still, die, that he has left untouched all the accumulation of various funds and benefits that go with his job. We tried to find out the details of these, but he was very unclear about them and we gave up the attempt. Because of his poor health and the distance to his place of work, Mahadu cannot cycle, and travels to and from work on PMT and PCMT buses, spending (currently) Rs. 1.15 each way.

46. Mahadu is quite happy with the Ganeshnagar Mandal, though he does not go into raptures over them. He sees the identity card issued following the 1976 slum census as an adequate guarantee that he will not be summarily evicted. He finds the water supply at the Municipal tap reasonably satisfactory. He does not have electricity in his house. We asked him if he intended to acquire a connection. He said that with the kind of walls he had there was no question of the MSEB granting him one, since the metre has to be mounted on a properly insulated board which itself must be set in a stable wall.

47. This led us to ask him whether, in view of the funds, that would accrue to him upon retirement, he had any plans for upgrading the house. He made vague references to the need for proper CGI sheets for the walls, and for some measures to stop seepage of damp upwards through the floor. But he seemed unable to conceptualise the value of the money due to him, or just how to allocate it for various purposes. On the whole, both Mahadu and his wife seem to be so preoccupied with their own respective conditions of health that they are unable to look beyond this immediate concern.

(vi) *Banu*

48. Banu, aged about 30, lives with her husband Siraj, and three sons, aged respectively 9 years, 4 years and eight months, in a room 10'X10' behind the community temple in Ganeshnagar. The room is in fact one quarter of a hut 20'X20'. The walls are CGI sheets, and the roof is of Mangalore tiles. The floor is in mud-and-cowdung plaster. The only opening in the walls is the entrance door. The two party-walls stop a foot or so short of the 10 foot high roof, and there is some scope for air circulation on this count, though it also considerably reduces privacy from the immediate neighbours. A little "mori" in one corner of the room serves as a washing space. The room has an independent electric connection and a fluorescent tube. The bi-monthly electricity bill comes to about ten rupees.

49. Banu earns around fifty to sixty rupees a month rolling beedies. This work is "subcontracted" to her by her mother, who has a contract with the Thakur Savadekar Bidi factory in New Khadki for a logbook quota of 800 bidis a day, for which she gets five to six rupees. She has been doing this work for the last thirty years, starting with a quota of 1500 beedies a day, which was later reduced to 1,000 and now to 800. She goes to the factory every evening to hand in the day's quota and to collect raw material (leaves, tobacco and thread) for the next day's work. The leaves are soaked in water overnight and dried, to make them pliable for rolling. We inspected the old lady's logbook and found that she has a consistent record of delivery and, significantly, no "rejects". Banu told us that if there was a shortfall in quota due to bad leaves this had to be made good by the contractor. Therefore any surplus leaves left over from the day's work were carefully preserved for such a contingency. Since leaves are issued on a weight basis it is not difficult to lay by a few when the lot is good. On the rare occasion of a genuine shortfall, leaves have to be purchased in Nana Path.

50. Banu's husband Siraj works as a casual labourer on construction sites, doing masonry work and some plastering. He averages four days a week and earns Rs. 8—9 per day, making on an average between Rs. 125—150 a month. This, together with the Rs. 50—60 earned by Banu, is the entire income of the family. Siraj is addicted to the bottle, and more than half his income gets spent on drink. Banu's parents are reasonably secure economically, and they occasionally help out in cash or kind. Until about six years ago Siraj used to ply an autorickshaw, and used to make about Rs. 10—15 per day after paying tent (Rs. 12) and other overheads on the vehicle. He once got involved in an accident while driving in an inebriated state, and his licence was impounded. This resulted in his changing over to being a construction worker.

51. Until around 1970 Siraj used to stay in a joint family with his parents and married elder brothers, in a slum in Sivajinagar. His drinking problem was a source of tension in the family. After he got married the problem continued. As a result the family decided that Siraj and his wife should move out and set up house independently. This is how they came to Ganeshnagar twelve years ago and built a hut similar to the present one (except that the roof was of CGI sheet). This cost around Rs. 1,000 then. The amount was raised by Siraj's mother who sold her ornaments and gave the money to her errant son as a parting gift.

52. Siraj and his wife never had enough money to invest in the improvement of their house but when a newcomer to Ganeshnagar decided to build a hut next to theirs, sharing a wall, and went in for a Managalore tile roof, they decided to have roof extended over their hut to replace the CGI sheets. This cost them around Rs. 500 six years ago. The money came in the form of a 'loan' from Banu's mother. Around the same time they also acquired a private electric meter. Other than this they never managed to invest in improvements.

53. The old house was located in a square in the centre of Ganeshnagar. About three years ago a local entrepreneur saw it as an ideal location for a mill. He moved through the office bearers of the Ganeshnagar Mandal to acquire it for himself, along with the adjacent house. The Mandal Committee tried to apply pressure on Siraj and his neighbour to move. The neighbour, being financially secure, held out. Siraj and his wife, being more vulnerable, proved pliable. The erstwhile occupant of their present house was "persuaded" by the Mandal to vacate his premises, and left Ganeshnagar. The vacated house was allotted to Siraj and this is where the family now lives.

54. After the 1976 slum census conducted by the PMC, Siraj was issued an identity card officially recording him as occupier of his former premises. When he moved out from there to make room for the mill, the Mandal took the identity card, undertaking to get the transfer recorded. The card is still in the Mandal's custody. Siraj and Banu were given the card for their new house, which is still in the former occupier's name. They have been unable to get the transfer recorded. The electric connection in the former house is still in Siraj's name. Three months ago they had to pay an outstanding bill of Rs. 175 which according to Banu, had been incurred by the new occupier.

55. The present house has a standpipe nearby for Municipal water supply. The supply according to Banu is erratic and there are fights over collecting water. Sometimes, when she cannot get water at the municipal tap, she walk down to a place beyond the periphery of Ganeshnagar and collects water from a pit which accumulates it from a burst water mains above.

56. Banu's eldest son goes to a municipal school nearby, and the second one is due to enrol soon. Banu herself was educated as far as the 4th standard, and her husband up to the 7th. She finds it difficult to make ends meet on their meagre income, especially because of the heavy drain on it due to her husband's drinking. She did not admit to taking any loans, but vaguely said that her parents help out occasionally. They live nearby in new Khadki, and her mother is a daily visitor on account of the bidi-rolling activity.

57. Because of her family's experience in the matter of being compelled to change residence, Banu does not have a very high opinion of the Ganesh Nagar Mandal and its overall achievements. She does feel, though, that her neighbours are generally kind people and that there have never been any tensions with them. She does not feel discriminated against on account of being a Muslim. She feels reasonably secure against eviction from Ganesh Nagar, and sees the identity cards as adequate guarantee of tenure, whatever be the problems due to her family's residence not being recorded. We asked her about the improvements she would like to make in her house, but she was not interested in discussing it because it was clearly beyond their means, and dismissed any talk about it as idle daydreaming.

B. Bibwewadi Case Studies

(vii) Shendkar

58. The Shendkars came to live in the Bibwewadi sites and services scheme after being evicted from a hutment near the Swargate Octroi Post. The hutment was demolished and the Corporation offered them a "site" at Bibwewadi in lieu of this, at Rs. 18 per month for a platform 10'x15'. On this, nine years ago, they built their first shelter, using only the material salvaged from the demolition of their earlier hut, and contributing their own labour.

59. Right from the acquisition of the platform the Shendkars went about their task systematically. At Swargate octroi post they run a little restaurant. This was not strictly legal, but they had managed

to remain in business by showing 'consideration' to the appropriate PMC officials at the appropriate times. They had intentions of continuing in the same business on the new site. So they acquire a platform right on the main road, as this would be the ideal location for such an enterprises. As a precaution against the risk of losing this platform in possible road-widening operations at a later date, a second platform immediately behind the first was acquired in the name of Mrs. Shendkars widowed brother, who is a member of the household. By a twist of fate, the Shendkars soon discovered that because of the 'legality' of their new location, the operation of a restaurant was subject to Public Health regulations more stringent than had been applicable in the hutment at Swargate. The Public Health officials could not look the other way, even for a consideration, and the enterprises had to be wound up within a year or so of its starting. While they had done good business, they could not comply with the Corporation's regulations regarding water supply and sanitation standards in public eating places.

60. As a result of this they were without any means of livelihood, and the entire family went to live in Mr. Shendkars village for a year or so. During this time Mr. Shendkar looked around for a job and finally found one in a brass foundry in Bhavani Peth. There he now earns Rs. 600 per month. His wife works as a domestic servant and cook at a number of houses in the neighbourhood, and earns another Rs. 200. The eldest son, aged 20, is an apprentice at a garage and brings in Rs. 100 per month. The widowed brother of Mrs. Shendkar transports children from the neighbourhood to and from school and earns between Rs. 200-225 per month, for eleven months in a year, besides a variable nominal income from odd jobs.

61. The household consists of eight persons—Mr. & Mrs. Shendkar, their four sons and daughter, Mrs. Shendkar's brother, two dogs, a cat and three goats, the milk from which is consumed in the household. The goats are housed in a CI sheet shelter built on the second platform mentioned above. This shelter is divided into two rooms, 6' X 10' and 9' X 10' respectively. Entry is through the former, accessible from the former, has been rented out to an old lady who pays as rent Rs. 18.00 per month, payable to the Corporation for the platform. The Shendkars upgraded their own house (the one in front) two years ago. They brought in hired skilled labour from Mr. Shendkar's village in Velha Taluka and offered their own services as helpers.

62. The new construction is of brick in mud mortar, plastered over in cement. It has two storeys, the lower having a headroom of seven feet and the upper an average headroom of about five feet. Access to the upper storey is through a cutout in the wooden floor, reached by a stepladder from the ground floor. The upper floor also has a cantilevered balcony, projecting $2\frac{1}{2}$ feet beyond the front edge of the platform. The ground floor is divided into two rooms. The front room is about 6' X 9' and the rear room is about 8' X 9'. The first of these is used as a sitting room and the second is a kitchen the latter has a side door leading to the open alley between the Shendkars house and the adjacent one. This space has been cordoned off by a hedge and serves as an extension to the kitchen*. The ground floor is paved with the IPS flooring which is standard on all the platforms provided by the Corporation. The upper floor is in wooden planks, spanning width-wise across five wooden joists which project in front to support the balcony. The roof is of corrugated G.I. Sheets.

63. The upgradation described above cost the Shendkars Rs. 8,000/- two years ago. The amount was entirely borrowed. Mr. Shendkar took an interest free loan of Rs. 7,000 from his employer and is now repaying it in instalments of Rs. 200 per month, which are deducted from his salary. Of this amount Rs. 4,000 are still to be paid. Mrs. Shendkar borrowed Rs. 1,000 from her various employers. This amount has been repaid.

64. Our respondents were Mrs. Shendkar and her brother, who came in after us. Mrs. Shendkar is born and brought up in Pune, in Kasba Peth, and has studied up to the 7th standard. Her husband is illiterate and from an agricultural background. He knows writing only to the extent of being able to sign his name, and that he was taught by his wife. The house and the two members we met, give the impression of an ambitiously upward mobile family. Mrs. Shendkar admitted that they still aspire to go back to the old restaurant business, as soon as the loan is repaid and the legal restrictions can be overcome. They also seem to have plans to expand their living space by upgrading the hut on the platform at the back.

*Inside the kitchen there is little 'more' (Washing-cum-bathing space). Mrs. Shendkar mentioned that the community bathrooms are not convenient to use because it involves walking some distance through the open for a bath or washing clothes and utensils. This is all right where using WCS is concerned, but not in the case of bathrooms. Thus most residents in the scheme do not use the bathrooms provided.

(viii) Gole

65. The Gole family, consisting of an oldcouple, their two sons and two daughters, came to live on a 'site' in the Bibwewadi Sites and Services Scheme in 1971, when their former residence, part of an 'unsafe' house in Ganesh Peth, was demolished, at the instance of the owner, at the peak of the monsoon that year.

66. The first house they built was in brick in mud mortar and had a corrugated iron (GI) sheet roof. It costs about Rs. 1200—1300 then. Labour was hired at a hundred rupæes. Old GI sheets were bought at Rs. 300. The rest was consumed by the walls, doors and windows. The internal space was sub divided by a partition wall running part of the way across the platform and set at about five feet from the front edge.

67. Funding for this came out of the sale of five tolas of gold (Rs. 960) and the liquidation of savings in the Post Office Savings Bank (Rs. 300), small improvements were done gradually over the years. The relatively mājor upgradation, if it can be called that, was done two years ago, at a cost of Rs. 2,000. This included expenditure on five wooden joists at Rs. 250 these now sell at Rs. 300 each and nine new GI sheets for Rs. 900. Three old ones were reused. The improvements mainly consisted of the shifting back of the partition wall to accommodate a bed placed lengthwise, the addition of a loft over this space and the replacement of rusted and leaky GI sheets in the roof. A katcha extension to the authorised platform, which had been added over the years, was widened to six feet and a low parapet seat was created to run around two sides of it. The house is not electrified.

68. Funding for this upgradation was from Post office savings of Rs. 770 and the remainder through loans taken from various employers at whose houses Mrs. Gole works as domestic help.

69. Mr. Gole is 70, and a carpenter by trade. He works on a casual basis. Because of his age and poor health, he does not have steady work. His wife, who was our interviewee, estimates that he is employed for about eight days in a month, and makes about Rs. 18 per day. She earns about Rs. 150 per month for her various jobs. Their elder son failed his 10th standard examination and is engaged, at age 20 years, as an apprentice fitter at a garage. He receives a stipend of Rs. 90 per month, but the garage is facing closure and his job future uncertain. He has registered with the employment exchange. Earlier he worked with a building contractor's firm as an office boy, earning Rs. 150 per month. But he left the job because he found its demands out of proportion with the salary. The change to a skilled job also offered better prospects of future growth.

70. Because of the low income of the household and the all-round jobs insecurity of both the working males, Mrs. Gole finds it difficult to make ends meet. She also reflected an interesting attitudinal characteristic about the maintenance of the house. While she considered it the duty of the household to maintain whatever they have built, she feels that the platform must be maintained by the PMC in its capacity as 'landlord' and because they have paid to the PMC an advance equivalent to three months' rent, which she believes is for minor maintenance and repairs. She pointed out to portions of the floor which were caved and cracked, and bitterly complained about the poor maintenance by the Corporation. She did not seem to have understood that the platform although rented was as good as their own and that they had legal tenurial rights over it. She vaguely discussed the possibility of their having a right to space in whatever new construction might take place on the site of their old demolished house in Ganesh Peth but then dismissed the idea because she felt after all they had been offered the present site in lieu of that and in any case the site of that house was still covered with the debris of demolition standing exactly as it had been ten years ago.

(ix) Parvatibai

71. We interviewed Parvatibai at her recently (just a week earlier) upgraded house. The new structure consists of a single room covering the entire 10' x 15' base provided by the PMC in the sites and services scheme. The walls are in brick in mud-mortar, plastered externally front and rear with cement, and internally all round in mud and cowdung. The side walls are due to be painted in cement on the outside. The roof is in corrugated iron sheets (reused from the earlier house) resting on joists. There is no mezzanine or loft. The height at the ridge of the roof is about ten feet from the platform level. There is no washing place inside. Washing and bathing are done in the open space behind the house on a stone slab placed there specially for the purpose. All this work was done by hired labour, and except the roofing material, everything else was newly bought. The joists from the earlier structure, unshaped post in a state of decay, lay in front of the house. Parvatibai told us that these would be used for constructing a cattle shed next to the house, to keep their bullocks in.

72. Parvatibai has no idea of the expenditure incurred on the renovation. Her husband, Madhu, had managed all that. She also knew that a loan had been arranged, but did not know about its source or the amount taken. (We wondered, whether he had sought a loan from the Hamal Panchayat-porters' organisation).

The family consists of Parvatibai, Madhu and their two little children. They came to Bibwewadi in 1975, after being evicted from their hutment near Swargate ocoitr post. Their first house on the present site was a crudely built shelter of G-I sheets, wooden posts and joists.

73. Madhu is a carter, who has his own cart and bullocks. Parvatibai had no idea of his income, but could tell us that the maintenance of the bullocks alone costs Rs. 20-25 per day. Madhu has no fixed place or timings of work, nor a regular weekly holiday. All his wife could say, was that he leaves home around 7 a.m. and does not usually return until 10 p.m. He goes "somewhere in Bhawani Peth". Parvatibai devotes herself exclusively to the home, and is not gainfully employed. The house looked bare. There was no furniture not even a steel bed which is a piece of furniture most of the poor households have. There were no brass utensils ; if a household has any brass pots, they are generally arranged neatly on shelves in the cooking area and displayed proudly.

74. Not having succeeded in getting any concrete information from Paratibai, we rose to leave, with a compliment to her on what a fine new house she had. At this point she confessed that she had felt quite alarmed by our arrival, thinking that we might be from the Corporation and were going to make inquiries about the new construction which might result in putting her family into trouble.

APPENDIX III
EVALUATION OF SITES AND SERVICES PROJECTS

EVALUATION OF SITES AND SERVICES PROJECTS

Introduction

1. Sites and Services projects are an intervention in the housing market to shift the supply of housing facilities in favour of the poor. Despite many problems this way of supplying shelter to the poor remains an effective mechanism to reach the poor. On the one hand it improves the quality of housing conditions for the poor and on the other enables the families to improve housing facilities as and when they can afford them. This makes the process of housing consolidation easy for the family and also spreads the demand for scarce building materials over number of years. In contrast, a massive conventional low cost housing programme would have generated high level of competition for procuring scarce materials in the market; leading to high prices, scarcities and speculation.

2. Further the sites and services projects if formulated properly can also be immune to large scale invasion by middle income groups as these are not very suitable residential areas for them to live in. The project impact research done in HUDCO has also now tended to prove that ownership of affordable shelter has a healthy impact on the income and savings of the Poor beneficiary families.

3. The above advantages of sites and services projects assume that all the rules of the game are observed. In practice this is not so. This is so as brought out by detailed feedback which is now available in respect of sites and services projects. In some cases adequate precautions are not taken at project design implementation or post allotment stages of the project. The disadvantages of this neglect emerge at project level in many ways once the project gets going.

4. An attempt is made in the following paras to coalesce some of the evaluation results in respect of sites and services projects:

Affordability and Accessibility Issues

5. The concept of affordability adopted in most of the sites and services is too simple. The usual way is to assume as to how much a family can pay for housing. The project authorities tend to feel satisfied if the hire-purchase instalment is either equal or lower than this amount. The evidence that the affordability determined in this way is not adequate has become obvious on account of high default rates in cost recovery and high turnover of facilities at project level. This is particularly true in case of families where a female was the head of the family. Though one can argue that in some projects the high turnover of families and high delinquency rates need not necessarily be due to low affordability of the project but could be due to low priority accorded to better housing by the poor families (hence they sell and go back to slums). The defaults in some cases have also resulted from the tradition of subsidising programmes for the poor. Once the sites are allotted and construction loans granted the beneficiaries sometimes emerge as pressure groups for concessions in payment or more facilities on subsidised basis. Despite these doubts, the level of delinquency rates and turnover of families remains an important yardstick to adjudge a part from other factors, the affordability level of the projects.

6. Even on a conceptual level the conventional concept of affordability adopted need not be fool-proof. For example, if income eligibility considerations are known before hand the applicant families declare the same in order to become eligible. Further we tend to assume that the eligible families have regular income. But in case of a families where a female is the head of the household or the head of the family is aged etc. there is frequently no regular income. These households live on gifts or transfers of income from other families. It is also found that these families like casual workers have variable incomes. In one month they may have higher incomes while in another month they may have lower than the required income.

7. In addition, the affordability criteria is frequently based on the concept of ability to pay rather than the willingness to pay. The gap between the two could be wide depending upon circumstances. For example, if the housing supply is made available the families may be willing to pay more than what they are able to pay. However, when supply is made available, the families may be willing to pay less than they are actually able to pay. Further affordability is taken in too static a sense. The project may be affordable when formulated or announced but may be unaffordable when completed.

8. Thus determination of affordability is quite a complex task and cannot be encompassed by simple housing-income ratios. Income levels no doubt are essential but do not provide sufficient basis for assessing accessibility of low income families towards a project.

9. As in the case of affordability, the manifestations of an unaffordable project could take quite complex forms. Default in payments or sale of houses could be too simple as indices and can emanate from a complex set of factors. For example, if the family is unable to build the house as visualised or is actually living in worse conditions than before or lives for too long in a partially built house the project is not affordable to it. Similarly if the family has to cut down significantly its essential consumption expenditure to pay for the site and the subsequent need to invest in construction then the shelter being offered is not affordable to the family.

10. International experience in implementing sites and services projects is also in line with these observations. In Senegal, for example, the families realised too late that the house being constructed is costing them more than they can afford. In addition, time over-runs also increased the cost in Senegal to an extent that it eroded affordability. In Zambia sites and services projects have run into 80 per cent defaults in cost recovery. In Philippines they discovered that 20 per cent housing-income ratio tends towards being over-optimistic and in actual practice the families were not able to set aside visualised amounts towards housing etc. etc.

11. In view of the above, there is a need to carry out more research and project evaluation studies to identify intrinsic parameters of affordability/accessibility at the household level.

Project Design & Planning

12. Much more attention needs to be devoted to project design and planning. The projects at present tend to be more technical in shelter solutions than providing diverse/flexible options to the poor to help them solve their shelter problems. Standard designs are frequently distributed to the families to help them construct houses on this basis and on the sites allotted. This method is more for the convenience of the agency than for the families. Standard designs are easy to approve in contrast to those needing approval for modified designs.

13. Adequate attention is also not paid to construction methods adopted in the project design or to integrate it with other inputs i.e. local materials, self-help of hired labour etc. Similarly the projects provide either individual or community facilities. No flexibility is provided to help families graduate from one form to another according to its resource availability over a period of time (individual vs. communal water supply). Further for convenience of layout planning plot sizes are fixed disregarding each family's affordability in terms of regular income, gifts or motivation etc. Once project parameters are fixed families either have to fall in line or violate designs, standard plans etc.. This development seriously affects the quality of formal housing effort visualised by project designers for these informal groups.

14. The selection procedure adopted in project for identifying beneficiary families also tends to be too conventional. No personal attention is paid in selection of beneficiaries. Most of the time families are selected on income eligibility considerations. In this manner, as mentioned above, many females as head of the families, aged persons or casual workers get excluded as their incomes are irregular, uncertain and skewed. On the other hand, relatively better off families may become eligible on the basis of false documents; as no home visits are made.

15. The implementation strategies visualised in project design too need another look. For example, many projects make provision for material loans. As these are to be procured as per given rules

and procedures of the authorities there are frequent problems. In some cases this way of material supply unnecessarily necessitates use of more expensive materials. Given the freedom, the families could have made their own arrangement at much more speed, at low cost or even used local/substitute materials.

16. Further sites and services projects also make no provision for maintenance of community facilities, streets etc. In the absence of which, infrastructure tends to quickly deteriorate creating a bad precedent for popular participation or replicability of projects at other places. Failures of this type build resistance amongst people as well as planners.

Sites and Services and Concept of Progressive Housing Development

17. The philosophy of providing sites and services to the poor is based on the idea of progressive housing development by the families. The advantages of this are that these projects :—

- (i) Cost less to the families than either the public or even the private housing supply and on similar standards;
- (ii) can help prolong the construction period by each family depending upon its stream or size of income over a period of time.

18. However, the planners have a tendency to shy away from giving total support in implementation of these projects, as they are not sure as to whether the agencies they lead will be able to make a success of these projects. This is especially so in some schemes the houses that have been built on the sites allotted are of low quality. While in others the houses that have come up being of good construction quality the settlements have become attractive for relatively higher income groups. The results in both situations are unsatisfactory in terms of their objectives.

19. Further as success of these projects depends too much on mobilisation of the community the housing agencies which lack community development staff have shied away from either taking up the projects or to replicate the projects. In some cases the difficulties have emerged from an entirely different set of problems. For example in some projects the families started building houses with extra rooms than visualised in the project and later on ran into financial problems. There is also a tendency on the part of some families to go for expensive materials rather than use local materials. This has led in some cases to over-indebtedness of the family.

Popular Participation

20. Involvement of the beneficiaries in formulation as well as implementation of projects is necessary to :

- (i) help dovetail the projects as per needs of the poor families ;
- (ii) reduce construction period;
- (iii) make projects resource efficient ;
- (iv) help efficient cost recovery ; and
- (v) reduce costs and help promote better maintenance of assets created under the projects etc.

21. However, very few agencies have been able to adopt full fledged community approach to housing projects. The reasons differ from agency to agency. In some cases planners at project design stage do not want to raise expectations of the people and hence do not hold discussions. In other cases the agencies have neither trained staff nor resources to mount detailed participatory exercises at pre-design stage of the project. Sometimes the planners feel that it is difficult to synthesise the opinions of the poor and their professional judgements. As a result they do not encourage communication between the people and themselves. Involvement of the Community in implementation of the project is felt to be still more difficult. Frequently labour contribution in digging of ditches or foundation work etc, is taken as equivalent to down payment. In some projects where self-help was mandatory the families could not participate as "wages lost" were more than work put in 'money terms'. The families thus resorted to hiring labour.

22. However, a lot depends on the social background of the people who are allotted sites. If it is a homogeneous group (based either on religion caste etc.) it is much easier to identify community leaders and even from construction groups. However in case of heterogeneous groups it is found difficult to generate popular response. As sites and services unlike slum upgradation schemes 'create new communities calls for much effort to generate community effort. In some of the successful projects social, sports or music concert forums created to evoke popular participation in heterogeneous groups. Unfortunately most of the traditional housing agencies are neither equipped nor inclined enough to put in the required scale of effort in this direction.

23. In addition to these problems at operational level numerous problems are faced even at the conceptual level. This is so as most of the time, the project agencies have no clear cut guidelines as to what constitutes 'popular participation'. As most of the factors which determine popular participation are predominantly attitudinal in nature, these tend to be too qualitative to be understood properly by all. At present we have too little information on these aspects. In the absence of clear cut guidelines the easier way that is adopted is to leave some project components to the people to do it themselves.

24. In view of above more research is needed to build up a viable relationship and identify parameters which are conceptually as well as operationally important towards popular participation in sites and services projects. Further the contribution of popular participation towards success of the project has to be much more understood if more and more housing agencies have to adopt it on regular basis.

Project Impact of Sites and Services Projects

25. Surveys in HUDCO have shown that ownership of a house even by the poor leads to healthy impact on income employment and health. However, what is more important is to what will be the impact of large scale sites and services solution at city level. For example if in a city a sizeable population is to be covered under this scheme, then what impact this will have on the city is still not clear. This is when people move from informal housing to formal housing their expectations tend to rise. In response to these rising expectations as well as demand for city services the capacity of the city authorities to supply the same is limited. The problem is no doubt being taken care of by linking large scale sites and services projects with programmes to augment overall availability of utilities at city level. But then this calls for willingness of the government to lay by more resources for financing urban development.

Results of Evaluation Surveys by HUDCO—A Case Study

26. In the following paras an attempt is made to summarise the results of an evaluation survey done by HUDCO on a Sites and Services Project financed in Chandigarh (Dadu Majra). The Chandigarh Survey was done in March, 1982. The project was sanctioned in January, 1979 and is situated on the west of Sector 38 in Chandigarh. The project helped develop 2712 sites. The all inclusive cost of each developed site was Rs. 2,600. Each site was provided with foundation and plinth platform of one room (10' X 10'), cooking platform (5.5' X 7') bathing enclosure of 5' X 5' and WC of 4' X 3'. Each plot was serviced with water supply, electricity and sewerage connection. The monthly hire-purchase instalment was fixed at Rs. 19 to be paid for 20 years.

27. The survey results showed that 97 per cent of the allottees were living themselves and only 3 per cent had let out their sites. The average age of the allottees was 42 years and family size was six. At least 64 per cent of the allottees were illiterate and 90 per cent of them belonged to Scheduled Caste/Scheduled Tribe families. 87 per cent of the allottees had monthly family income of Rs. 300 or below and another 13 per cent were between Rs 301 to Rs. 350 p.m.

28. All the allottees who were provided these sites previously lived in a slum. None of them in the past had the facility of cooking space, bath, electricity, potable water etc. Once allotted a site of their own Rs. 6000 was spent on an average by the families. The amount spent varied between Rs. 1500 to Rs. 11,000. All those who undertook any construction did so according to the technical guidelines laid down by Chandigarh Housing Board. The sources of funds for investment came from Banks (Rs. 3000 each family @ 4 per cent). The other sources were own savings and support from relatives and friends, etc.

29. All the families found water supply, electricity, street light, drainage either as adequate or satisfactory. Further all the residents interviewed expressed their satisfaction with the project.

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