

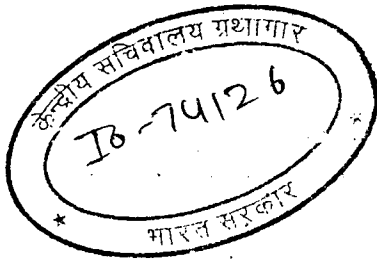
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DRAFT  
FIFTH FIVE-YEAR PLAN  
1974—79

GOVERNMENT OF BIHAR : PLANNING DEPARTMENT  
( July, 1973 )

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## DRAFT FIFTH FIVE-YEAR PLAN

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# PART I

## CHAPTER I

### THE SOCIO-ECONOMIC SITUATION

*Area and population.*—Bihar is the second largest State of India by the size of population. According to 1971 Census, it has an area of 1.74 lakh square kilometres and a population of 56.35 millions. In relation to the country as a whole, it accounts for about 5.3% of the area and 10.3% of the total population of India. The man-land ratio is substantially higher for the State as compared to that for the country as a whole. This is expressed in terms of density of population per square kilometre. The density of population in the State is 324 persons per square kilometre against 171 for all-India.

2. *Distribution of population by regions.*—Almost half the total area of the State consists of hills and plateaus with river valleys or basins separating the hills, while the remaining half is a flat alluvial plain divided into two unequal parts, north and south, by the Ganga. The State has thus three well defined regions—the North Bihar and South Bihar plains and the Chotanagpur plateau. The North Bihar plains cover an area of 53.8 thousand square kilometres and have a population of 25.4 millions, the average density being 489 persons per square kilometre. In the western part of the North Bihar plains corresponding to the Tirhut commissionership which has an area only slightly smaller than that of Kerala the average density per square kilometre is the same as that of Kerala (548). The South Bihar plains have an area of 40.3 thousand square kilometres and a population of 16.7 millions, the average density being 392 persons per square kilometre. The Chotanagpur plateau accounts for an area of 79.6 thousand square kilometres and a population of 14.2 millions. The average density here is 178 persons per square kilometre.

3. *Growth of population.*—During the last three decades, the population of the State has been growing at an increasing rate, the actual rates of growth being 10.27% in 1941—51, 19.77% in 1951—61 and 21.30% in 1961—71. The rate of growth of population in the State, however, has been lower than that for the country in concerned decades, the actual decadal national growth of population being 13.31% in 1941—51, 21.62% in 1951—61 and 24.75% in 1961—71.

It is somewhat difficult to say what exactly would be the trend of growth of population in future years. This is because two opposite forces are likely to operate on the growth rate of population. One of these may lead to a fall in the death rate as a result of the strengthening of public health measures and improvement in nutritional standards. The other may lead to a fall in the birth rate due to the impact of the family planning measures. On the assumption that further fall in the death rate may be off set more or less by a decline in the birth rate, the rate of growth of population during the period 1971—81 may be the same as in the preceding decade, i.e., 21.3%. On this assumption the total population of the State has been estimated at 59.75 millions at the end of the Fourth Plan period (March, 1974) and 65.83 millions at the end of the Fifth Plan period (March, 1979).

4. *Social composition of population.*—Bihar has a large population of scheduled castes and scheduled tribes. In 1971, the total population of scheduled castes in the State was 7.9 millions and that of scheduled tribes 4.9 millions. The two together constituted 22.9 per cent of the total population of the State against 21.5 per cent

for all-India. The regional variation in the scheduled castes/tribes population is as follows :—

	Proportion of Scheduled Castes to total population.	Proportion of Scheduled Tribes to total population.	Combined proportion of Scheduled Castes and Scheduled Tribes to total population.
	Per cent.	Per cent.	Per cent.
North Bihar ..	17.9	0.8	18.7
South Bihar ..	11.5	0.9	12.4
Chotanagpur ..	9.9	32.1	42.0
Bihar ..	14.1	8.8	22.9

There is also a sizeable population of other socially and educationally backward communities who need special assistance particularly in matters of education.

5. *Economic characteristics of the population.*—The population of the State is predominantly rural and agricultural with a very high percentage of dependents. According to 1971 Census, the urban population of the State was estimated at 5.63 millions which was about 10 per cent of the total population. As against this, the ratio of urban to total population for all-India was about 20 per cent. The State is thus only half as urbanised as the country as a whole. The regional variation in the proportion of urban to total population in the State is as indicated below :—

	Per cent.
North Bihar ..	5.2
South Bihar ..	12.6
Chotanagpur ..	16.0
Bihar ..	10.0

Relatively higher degree of urbanisation in the Chotanagpur area is also somewhat deceptive inasmuch as it is on account of a few heavy and mineral-based industrial complexes forming urban islands in a vast rural existence.

In the past few years, however, the rate of growth of urban population in the State has been higher than the country, the actual rates of growth being 49.03 per cent in the decade 1951—61 and 43.95 per cent in 1961—71 against 27.41 per cent and 38.38 per cent respectively in the country as a whole.

In 1971, there were 17.49 million workers of various categories in the State. This worked out to about 31 per cent of the total population of the State. The proportion of workers to the total population in the State for the three regions of North and South Bihar and Chotanagpur worked out to 30.9, 30.4 and 32.0 per cent respectively. The proportion of workers for the country as a whole worked out to about 33 per cent. This would appear to indicate somewhat heavier burden of dependency in the State than in the country generally.

Of the total workers in the State, about 43.35 per cent are cultivators and 38.92 per cent agricultural labourers. In other words, about 82.27 per cent of the total workers in the State are dependent on agriculture. The proportion of agricultural to total workers works out to 87.8 per cent in respect of North Bihar, 80.2 per cent in South Bihar and 74.5 per cent in Chotanagpur. The proportion of these two categories in the total population for all-India is 69.67 per cent.

One of the disquieting features of the economic situation in the State as revealed by the 1971 Census is the increase in the proportion of agricultural labourers from 23.8 per cent in 1951 or 22.97 per cent in 1961 to 38.92 per cent in 1971. The proportion of agricultural labourers to total workers in the three regions of North and South Bihar and Chotanagpur is 46.4, 40.3 and 24.1 per cent respectively.

6. *Land use.*—Out of a total area of 428.4 lakh acres in 1970-71 about 287.1 lakh acres were culturable and 141.3 lakh acres were not culturable or available for cultivation as shown below :—

Items.	In lakh acres.	Per cent of total area.
Net area sown .. .. .	208.99	48.8
Current fallows .. .. .	38.99	9.1
Other fallows .. .. .	21.77	5.1
Cultivable waste land .. .. .	12.77	3.0
Miscellaneous trees, crops and groves .. .. .	4.9	1.1
Permanent pasture and other grazing land .. .. .	4.5	1.0
Land put to non-agricultural use .. .. .	38.2	8.9
Barren and uncultivable land .. .. .	26.2	6.1
Forest .. .. .	72.4	16.9
<b>TOTAL</b> .. .. .	<b>428.4</b>	<b>100.0</b>

7. *Subsistence cultivation.*—In 1971, the net area cultivated worked out to only 0.37 acre per capita. This is likely to decrease further with the growth of population. The per capita cultivated area for the three natural regions of Bihar works out as under :—

	Per capita net cultivated area (acres).	Per capita gross cultivated area (acres).
North Bihar .. .. .	0.34	0.46
South Bihar .. .. .	0.38	0.53
Chotanagpur .. .. .	0.42	0.47
Bihar .. .. .	0.37	0.48

About 80 per cent of the holdings in the State are less than 5 acres in area. The vast majority of the farmers in State are small and marginal farmers subsisting on very low earnings.

8. *Intensity of cultivation.*—The intensity of cultivation in the State, i.e., the ratio of gross to net area sown, works out to 1.39 only, the figures for North and South Bihar and Chotanagpur being 1.37, 1.38 and 1.12 respectively. Scope exists therefore for increasing the intensity of cultivation in the State.



9. *State and per capita income.*—In 1969-70 the net domestic product of the State at current prices was Rs. 2,192 crores. This gave a per capita income of Rs. 403. In terms of constant (1960-61) prices, however, the net domestic product was Rs. 1,132 crores. The estimate of per capita income in the State on the basis of constant price was Rs. 208. The estimate for the net national domestic product for 1969-70 at current prices has been kept at Rs. 31,228 crores. Similarly, the per capita national income in 1969-70 at current prices is estimated at Rs. 590. The State domestic product thus represents only about 7 per cent of the net national domestic product. The per capita income of the State at current prices is short of the national level by about 32 per cent.

10. *Extent of poverty.*—The State is not only poor in terms of per capita income but the distribution of income is also very uneven. An attempt has been made to measure the inequality in distribution of income by use of expenditure data collected in the 26th round of the national sample survey. This round covered the period 1971-72. Planning Commission have defined poverty as a situation in which the monthly per capita expenditure is Rs. 20 or less at 1960-61 prices. In terms of 1971-72 prices, Rs. 20 becomes Rs. 42. Accepting this definition of the poverty line, the proportion of those below the poverty line in the State is estimated at 74.46 per cent of the total population. The proportion of those below the poverty line for North Bihar and Chotanagpur works out to 77.01 per cent and 78.36 per cent respectively, the figure for South Bihar being 66.69 per cent.

11. *Unemployment and Under-employment.*—There is no firm data available in respect of unemployment and under-employment in the State. The results of the various rounds of the national sample surveys in respect of unemployment and under-employment are also not available. The only data available on the subject relates to the registration of unemployed with the employment exchanges. According to the employment exchange data, there were 2.67 lakhs unemployed in the State in December, 1968. Of this, 1.07 lakhs were educated unemployed, i.e., those with educational qualifications of matric and above. The percentage of educated to total unemployed in the State in December, 1968 was 40.06. In December 1972, the number of unemployed has increased to 7.13 lakhs, including the number of educated unemployed to the extent of 3.23 lakhs. In fact, the increase between December, 1971 and December, 1972 was phenomenal, i.e., by about 2.98 lakhs. Similarly the increase between December 1971 and December 1972 in the number of educated unemployed was also quite large at 1.54 lakhs. The proportion of educated to total unemployed in the State in December, 1972 increased to 45.24 per cent.

12. *Structural changes.*—As explained earlier, the economy of the State is not fully diversified. The problem of diversification of the State's economy can be looked at from two angles, i.e., the angle of occupational distribution of population and the angle of generation of income. From the point of view of occupational distribution of population all the nine economic classes devised by the Census can be grouped into three, namely, the Primary, Secondary and Tertiary occupations. The primary occupations may comprise of the cultivators, the agricultural labourers and the mining, quarrying, live-stock, forestry, etc. The secondary occupations may include house hold industry, manufacturing other than household industry and construction. The tertiary occupations may include trade and commerce, transport, storage and communications and other services. On the basis of these groupings, it would appear that primary occupations in Bihar accounted for 84.71 of the workers in 1971, the secondary occupations 5.63 per cent and the tertiary occupations 9.66 per cent of the workers. Compared to 1951, there has been a decline in the proportion of workers engaged in primary and tertiary occupations in Bihar, the proportion of these workers in the respective occupation groups in 1951 being 86.12 and 10.23. Similarly, there has been an increase in the proportion of workers engaged in secondary occupations in Bihar in 1971 as compared to 1951 when the proportion of workers engaged in the occupation was 3.65 per cent. There has been a similar trend in the occupational distribution

of population in the country, though the magnitude of the change is larger in respect of the State than the country as a whole. This may be a desirable trend, though there is need for speeding up the pace of this change.

The shifts in the occupational distribution of the State is also accompanied by similar shifts in the income generation process of the State. Classifying the income generating sectors into three groups of primary, secondary and tertiary ones, similar to that adopted in respect of occupational distribution of population, it is found that the contribution of the primary sector to the income generation process of the State in 1950-51 was 64.3 per cent. It declined to 57.7 per cent in 1968-69. The contribution of the secondary sector to the income of the State in 1950-51 was 11 per cent of the total. It increased to 13.3 per cent in 1968-69. Finally, the contribution of the tertiary sector to the State income in 1950-51 was 24.7 per cent. It increased to 28.9 per cent in 1968-69. All these changes, however, have been reckoned with the terms of value of net State product at current prices. These trends hold good also when the values of the State domestic product are reckoned at constant prices.

13. *Infra-structural facilities.*—The development of infra-structural facilities in the State so far has not been sufficient enough to accelerate the pace of development. The major infra-structural facilities required for rapid development of the State are irrigation, power, transport, education, health and housing facilities. As far as irrigation is concerned, facilities exist for irrigating a net area of 53.36 lakh acres. As the net cultivated area in the state is 208.91 lakh acres, only about 25.5 per cent of the net cultivated area is in receipt of irrigation facilities. This proportion works out to 15.26 per cent for North Bihar, 54.08 per cent for South Bihar and 8.07 per cent for Chotanagpur. If, however, account is taken of assured irrigation facilities only, i.e., irrigation from Government canals and tube-wells, the area receiving this facility works out to only about 14 per cent of the net cultivated area. On account of poor irrigation facilities, agriculture in the State has to depend largely on natural rainfall. If rains fail, agricultural production also suffers badly. Besides, there are annual visitations of floods and droughts in the State which add to the difficulties of the agriculturists in the State.

The deficiency in irrigation facilities could be met partly by tapping the ground water resources. This requires development of power facilities which unfortunately does not exist in the State to the extent required. It has been estimated for example that per capita consumption of power in Bihar in 1971-72 was only about 67.2 kwh against 93 kwh in the country as a whole. In fact, in certain parts of the State, namely, in North Bihar, the per capita consumption of electricity was as low as 10 kwh, the figure for South Bihar and Chotanagpur being 41.6 and 201.9 kwh respectively. The relatively higher consumption of electricity in Chotanagpur is an account of the few industrial complexes concentrated in two or three places. Even the existing power facility is subject to several constraints such as inadequacy of transmission and distribution facilities, interruptions and fluctuations in voltage.

In respect of roads and road transport also, the State is below the national average. The length of surfaced roads in Bihar is only 25 kms. per lakh of population against 66 kilometres for the country as a whole. Similarly, in respect of motor vehicles, the State has had an average in 1969-70 of 41 vehicles per hundred square kilometres of area against 51 in the country.

In the matter of education, the 1971 Census has revealed that the proportion of literates in Bihar was only 19.79 per cent of the total population against 29.34 per cent for the country as a whole. The percentage of literates in South Bihar at 24.3 per cent and Chotanagpur at 20.4 per cent, however, is higher than the State average, though in North Bihar the proportion of literates is lower (17.1 per cent) than the State average. The disparity in the levels of educational development between the State and the country becomes more glaring when one looks at the different stages

of education. Thus, in 1973-74, there will be only 62.20 per cent of the boys and girls in the age-group 6—11 years which are studying in primary schools in Bihar against the average of 77.3 per cent for all-India in 1971-72.

In respect of health facilities again, the State has had a lower level of availability, the number of beds per thousand persons in the State in 1968-69 being only 0.24 against about 0.60 for all-India. The 1971 Census has also revealed a housing shortage of about 1.6 million units in the State, the actual number of house holds and occupied residential houses being 9.48 and 8.38 millions respectively.

It would be apparent from the foregoing account of development of infra-structural facilities that there is considerable scope for increasing the level of infra-structural facilities so as to accelerate the pace of progress in the State.

## CHAPTER II

### FOURTH PLAN EXPERIENCE

The Fourth Five-Year Plan period was marked by widespread drought, floods, famine and political instability, making the achievement of physical and financial targets of the plan extremely difficult. As a result in almost all the sectors of development there have been shortfalls. Yet, considering the handicaps, the achievement cannot be termed unsatisfactory.

2. The Fourth Five-Year Plan of Bihar was approved for an outlay of Rs. 531.28 crores to be financed through the State resources of Rs. 193.28 crores and Central assistance of Rs. 338 crores. An amount of Rs. 100 crores was estimated to be raised by the State Government as additional resources mobilisation during the Fourth Plan period.

3. Emphasis in the Fourth Plan has been on agricultural programmes, irrigation and power sectors. Irrigation and power sectors between themselves accounted for more than 51 per cent of the total plan outlay.

As agriculture is the main source of livelihood of the vast bulk of the population of this State, per capita income can be raised and savings and capital formation generated on any significant scale only if agricultural yields can be raised substantially. The Fourth Plan, therefore, laid special emphasis on agricultural production programmes. Special attention was given to the minor irrigation programmes, as they are generally of a quick yielding nature. The main accent on the major and medium irrigation sector was on early completion of the schemes already in hand and in particular, acceleration in the works of Gandak and Kosi Projects. As regards the power sector, emphasis was on extension and strengthening of the transmission and distribution system so that the installed capacity for power generation could be utilised to optimum advantage for agricultural and industrial production. The programme for rural electrification was also to be intensified.

4. In the first four years of the Fourth Plan Rs. 345.01 crores were spent. In the current financial year, i.e., the last year of the Plan, Rs. 140.59 crores are likely to be spent. Thus against an outlay of Rs. 531.28 crores, Rs. 485.60 crores are likely to be spent in the Fourth Plan period. The Fourth Plan outlay under major heads of development along with anticipated expenditure is shown in the table below :—

[Rupees in crores]					
Heads of development.	Fourth Plan outlay.	Percentage of total outlay.	Fourth Plan anticipated expenditure.		
Agricultural Programme ..	93.10	17.52	1,92.26		
Community Development, Co-operation and Panchayats.	19.80	3.72	35.68		
Irrigation and Power .. ..	2,71.00	51.01	7,23.54		
Industry and Mining .. ..	17.52	3.30	79.23		
Transport and Communication ..	38.04	7.16	1,44.45		
Social Services .. ..	91.27	17.18	3,24.19		
Miscellaneous .. ..	0.55	0.11	20.65		
TOTAL .. ..	5,31.28	100.00	15,20.00		

5. Production of foodgrains increased from an average of 51.7 lakh tonnes during the three years ending 1950-51 to an average of 82 lakh tonnes during the three years ending 1970-71, an increase of 58.4 per cent over 20 years which is an average growth rate of 2.9 per cent. Population has increased during the same period from 38.79 millions to 56.35 millions, an increase of 45 per cent or 2.25 per cent annually. While the rate of growth of foodgrains production has thus been maintained at a level higher than the rate of population growth during the period when population was rising very rapidly, it is well below national average and much lower than the rates attained in States like Punjab, Haryana and Gujarat. Among cereals there has been marked increase in the production of wheat but the same cannot be said of rice. The output of pulses and commercial crops has also not shown significant increase. Agriculture production remained somewhat unstable due to recurrence of floods and droughts.

The target of foodgrains production during the Fourth Five-Year Plan was 114 lakh tonnes. According to present indications the Fourth Plan will end with a base level foodgrains productions of the order of 100 lakh tonnes. The shortfall of 15 lakh tonnes is due to severe droughts, floods, bacterial infestations, lack of fertilisers in adequate quantities and non-realisation of the targeted irrigation facilities.

An outlay of Rs. 54.00 crores was kept for minor irrigation in the Fourth Plan against which the actual expenditure is likely to be of the order of Rs. 39.99 crores. It was envisaged to create additional irrigation potential of 24.25 lakh acres but it now seems that an additional irrigation potential of 13.38 lakh acres only can be created. The shortfall is mainly due to increase in the unit cost of providing minor irrigation on the one hand and adoption of realistic norms of irrigation to be expected from different kinds of schemes on the other. Besides, under the Emergency Agricultural Programme, taken up with the Government of India loan assistance outside the State plan ceiling to fight the drought during 1972-73, about 750 State tube-wells, 400—500 ERP sets and 5,000 bigger diameter wells were taken up. These schemes are likely to create 3.47 lakh acres of irrigation potential. Under the Special Employment Programme also construction of 4,300 bigger diameter wells was taken up which are likely to create an additional irrigation potential of 0.25 lakh acres.

6. The Fourth Five-Year Plan provided an outlay of Rs. 1,11 crores for major and medium irrigation schemes. Even though there is a general shortfall in most of the sectors of development in the Fourth Plan, expenditure in the irrigation sector is likely to exceed the provision. The actual expenditure in this sector is likely to be of the order of Rs. 130.46 crores. The reason for this excess expenditure has been the need for accelerating works in some of the major irrigation projects like, the Kosi, Gandak and Sone High Level Canal. The Fourth Plan targets of irrigation potential and utilisation as well as the anticipated achievements are indicated below:—

[In lakhs acres].

.....	Physical Progress Fourth Plan target.	Anticipated Achievements.
Potential .. .. .	46.69	51.61
Utilisation .. .. .	36.70	36.06

The schemewise break-up of the potential of 51.61 lakh acres at the end of the Fourth Plan is given below :—

[In lakhs acres]

			Beginning of Fourth Plan.	End of Fourth Plan.
Medium Schemes	..	..	25.07	29.73
Kosi Project	..	..	3.12	10.05
Gandak Project	..	..	..	10.00
Sone High Level Canal	..	..	..	1.83
<b>TOTAL</b>	..	..	<b>28.19</b>	<b>51.61</b>

7. In the Power Sector, a provision of Rs. 150 crores was made in the Fourth Plan. Besides, another sum of Rs. 30 crores was expected from institutional resources. Thus against the total provision of Rs. 180 crores, Rs. 158 crores is likely to be spent. The shortfall of Rs. 22 crores is mainly due to non-availability of funds.

The Fourth Plan envisaged raising the installed capacity to 785 MW but according to the present indications the installed capacity at the end of the Fourth Plan is likely to be 560 MW only. In the transmission side, against the target of 532 circuit KM of 220 KV lines and 1,660 circuit KM of 132 KV lines, the anticipated achievements, respectively, are 664 circuit KM and 1088 circuit KM. Similarly, against the Fourth Plan targets of 12,500 village electrifications and 1.25 lakh pump connections, the anticipated achievements, respectively, are 5,762 and 67.85 thousand.

8. An outlay of Rs. 34.23 crores was kept for the roads sector in Fourth Plan, against which the anticipated expenditure is Rs. 31.61 crores. The length of surfaced roads increased from about 4,800 kms. in 1951 to 12,205 kms. at the end of 1968-69. At the end of Fourth Plan (1973-74, the total length of surfaced roads in Bihar will be about 16,900 kms.

9. Since 1951, substantial investments have been made by the Central Government in the establishment of heavy engineering, fertiliser, oil refining and steel capacities in Bihar. One or two of the large private houses have also invested in setting up of expenditure many industries based on mineral resources available in the State. There has been very limited development so far of secondary and tertiary industries in the State.

Some of the major public sector complexes are still in construction stage. The growth of output and productivity in the running enterprises has also proceeded but slowly, due very largely to the inherent difficulties of the task. The establishment of heavy industries in the public and private sectors has had only very limited impact so far on the economy of the State. They do provide, however, wide scope for rapid development of small-scale and ancillary industries. Good progress has been made in recent years in the development of small-scale ancillaries at Adityapur (near Jamshedpur), at Hatia (near the H.E.C. complex at Ranchi) and at Bokaro Steel. Recent surveys and investigations made by the National Council of Applied Economic Research, the Industrial Development Bank of India and other financial institutions indicate that conditions are now favourable for a more rapid and broad-based progress of not only mineral and metal-based industries, but also of a very wide range of

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secondary and tertiary industries in the State. In the large and medium industries sector, against an outlay of Rs. 700 lakhs, in the Fourth Plan, the anticipated expenditure is Rs. 755.19 lakhs. Similarly against the same outlay for village and Small-Scale Industries, the expenditure anticipated in the Fourth Plan is Rs. 645.62 lakhs.

10. In the Fourth Plan the programmes of control of communicable diseases, family planning and post-graduate medical education under the health sector were treated to be programmes of national importance and as such included in the category of centrally sponsored schemes. These programmes are, therefore, being executed on the basis of allocations made by the Ministry of Health and Family Planning. For the rest of the programmes under the health sector, a provision of Rs. 15.28 crores were made in the State's Fourth Plan. The actual expenditure, however, is likely to be of the order of Rs. 7.28 crores. The reasons for the shortfall are mainly unavailability of funds and bottle-necks in building constructions programme. Steps are being taken to remove the bottle-necks in buildings construction programme to ensure fuller utilisation of funds in successive years. The number of urban beds at the end of 1968-69 in this State is 9,513. Against the Fourth Plan target of increasing the number to 14,864 the actual achievement is likely to be 11,590. As regards the rural beds, the Fourth Plan targets of raising the level to 3,603 number will be fully achieved.

11. Under the education sector against an outlay of Rs. 38.38 crores, the anticipated expenditure during the Fourth Plan period is likely to be of the order of Rs. 28.15 crores. The shortfall is mainly due to non-availability of funds. The shortfall has mainly affected the elementary and secondary education sectors. In the 6—11 age-group 15.02 lakh additional number of children were targeted to be enrolled but it will now be possible to enrol 8.52 lakh children only in the Fourth Plan period. The shortfall has been mainly in case of girls, in which against a target of enrolment of 8.05 lakh girls, it will be possible to enrol 3.06 lakh girls only. Similarly, against the enrolment target of 4.13 lakh children in the 11—14 year age-group, the likely achievement is 3 lakhs only. The percentage of enrolment during the Fourth Plan will rise from 55.9 to 62.2 for the 6—11 age-group and from 19.7 to 24.3 for the 11—14 age-group.

12. The shortfall in achievement of the financial target of Rs. 531.28 crores is mainly due to the fact that additional resources could not be mobilised to the extent envisaged. Unprecedented droughts, floods and famine are responsible for this. Another fact, that is glaringly conspicuous in the Fourth Plan review, is that the shortfall in terms of physical achievement is disproportionately higher than the shortfall in financial achievement. The high incidence of price rise during the Fourth Plan period is mainly responsible for this.

## CHAPTER III

### FINANCIAL RESOURCES.

The total outlay of the Fourth Plan of the State was originally envisaged at Rs. 531.28 crores. This was to be financed through the State resources of the order of Rs. 193.28 crores and the Central assistance of Rs. 338 crores. It was visualised that additional resource mobilisation by the State would be of the order of Rs. 100 crores. The broad scheme of financing originally visualised is indicated in column 3 of the enclosed Statement I. It will appear that out of the total State resources of Rs. 193.28 crores, Rs. 63.78 crores were expected from the State's budgetary resources including the contribution of public enterprises, Rs. 29.50 crores from negotiated loans for the State Government as well as the State enterprises and the remaining Rs. 100 crores from additional resource mobilisation by the State Government as well as the public undertakings.

2. As the plan progressed, however, the estimates underwent revision from year to year. The Planning Commission made a mid-term appraisal in September, 1971 as a result of which the estimate of State's total resources was revised from Rs. 193.28 crores to Rs. 94.69 crores, revealing the shortfall of Rs. 98.59 crores. This sharp deterioration was due to number of factors, the first and foremost being the strains caused on the State's finances by the natural calamities. The State has been plagued by famine, drought and floods during the last 6 to 7 years. The years 1966-67 and 1967-68 witnessed one of the worst famines in living memory. Even in subsequent years, natural calamities such as drought and floods have visited one part of the State or the other. In the year 1971-72 Bihar experienced an unprecedented flood inflicting heavy damages to roads, canals, embankments and public and private buildings. Roughly about Rs. 10 crores has to be spent on the repairs of flood damages and the entire amount was received from the Government of India in the shape of interest-bearing loans. This further accentuated the heavy debt liability of the State. Thus the interest payments increased from Rs. 33.46 crores in 1969-70 to Rs. 43.28 crores in 1973-74 and the loan repayment liability during the same period rose from Rs. 43.95 crores to Rs. 66.95 crores. Successive natural calamities also resulted in destruction of valuable assets created at considerable cost and necessitated large unproductive expenditures. Moreover, they also induced a set back to recoveries of loans and advances.

3. The period in question witnessed continual rise in prices and consequent agitations of Government servants, employees of Local Bodies and teachers for revision of dearness allowances and salaries. With the increase in dearness allowance sanctioned by the Central Government from time to time to their employees, the State Government had little option but to follow suit. Thus, dearness allowance of Government employees drawing pay upto Rs. 499 per month had to be increased in the year 1970-71. Scales of pay of Panchayat Sevaks and Typists had to be rationalised in 1971-72; pay scale of V. L. Ws., Chaukidars, Police constables were also revised slightly upward. Increased rate of dearness allowance had to be sanctioned to local bodies' employees and teachers which necessitated larger grants to local bodies to defray the additional cost. Ultimately a Pay Revision Committee was set up in August, 1970 and the implementation of the recommendations of the Pay Body resulted in extra annual burden of nearly Rs. 15 crores. The total impact of these revisions is estimated to amount to Rs. 99 crores during the Fourth Plan period. During the same period, the State Electricity Board had also to spend Rs. 8.76 crores on account of upward revision of pay of its employees.

4. The difficulties caused by unstable economy of the State on account of succession of natural calamities were compounded by a period of political instability. In the



result, the effort for additional resource mobilisation suffered heavily. Additional taxation, etc., envisaged originally could not materialise fully. Various measures taken in this direction were estimated to result in additional resource mobilisation of the order of Rs. 59.73 crores during the Fourth Plan period. However, as a result of exemption of small holdings from land rent and withdrawal of toll on bridges this estimate stands revised downward to Rs. 39.28 crores only. Details regarding additional resource mobilisation effort during the Fourth Plan period are available in Appendix "A".

5. In order to alleviate the strain on State finances, strenuous efforts were made to control the non-Plan expenditure as far as possible. Even normal maintenance expenditures on capital assets such as roads, buildings, etc., were pegged down to the minimum. A series of economy measures were also enforced. Partly as a result of these measures and partly due to increase in the share of Central taxes, it was possible to avert more drastic reduction in the size of the Plan outlay from year to year.

6. The position of Plan resources as it has emerged from year to year so far and the latest estimates about the same for the last year of the Fourth Plan period are indicated in columns 4 to 10 of the enclosed Statement I. While the accounts figures are available for the first three years, the fourth year's figures are based on the Revised Estimates and those for the final year on both the Budget Estimates and the latest estimates. The upshot is that the estimate of the total outlay of the Fourth Plan now stands at Rs. 468.79 crores. As against the original estimate of the State's total resources of Rs. 193.28 crores, the latest estimate stands at Rs. 56.67 crores only. As already stated, additional resource mobilisation is now estimated at Rs. 39.28 crores only. The estimate of the State's budgetary resources including contribution of public enterprises has now been reduced to (-) Rs. 33.23 crores whereas originally it was estimated at (+) Rs. 63.78 crores. The position could have been even worse but for the fact that the State's performance in respect of market loans, share in small savings, unfunded debt and negotiated loans has been far better than originally envisaged as would be clear from the table below :—

Item.	Original estimate.	Latest estimate.
-----	-----	-----
	Rs.	Rs.
1. Market loans (net) ...	17 crores	29.67 crores
2. Share of small savings ..	45 crores	68.26 crores
3. Unfunded debt (net) ..	16.70 crores	43.37 crores
4. Negotiated loans ...	29.50 crores	50.62 crores

7. The prospect of financial resources for the Fifth Five-Year Plan has to be considered in the background of the Fourth Plan experience. The foregoing analysis has underlined the inevitable strains on the State's finances that have ultimately resulted in considerable reduction in the total size of the Fourth Plan. Admittedly, there has been considerable shortfall in the additional resource mobilisation. However, it is necessary to view this in the background of low capital base of the State economy, almost the lowest level of per capita income of the State, relatively low order of developmental outlays and investments and the abject poverty of the vast majority of the State's population. Succession of natural calamities induced an element of instability in the agricultural production which constitutes the core of the State economy. They also necessitated large unproductive expenditures and large-scale resort to the Central Government loans resulting in increased burden of debt repayment and interest payment. Furthermore, they eroded the receipts on account of realisation of loans and advances given by the State Government. Continual rise in prices inevitably resulted in considerable rise in irreducible non-plan expenditure.

Although the actual performance far exceeded the original estimates in respect of market and negotiated loans, the total size of the resources available from these sources was far short of what can be considered to be the legitimate share of a big State like Bihar. The cumulative effect of all these factors has been, as said earlier, inevitable reduction in the plan outlay. It is clear that if the vicious circle of stagnation in the economy of the State has to be broken and a beginning made in the direction of substantial step-up in the developmental effort, it would be imperative to do fresh thinking in the system of resource allocation to a backward State like Bihar in the shape of not only the Central assistance but also the market and negotiated loans. To put the finances of the State on an even keel, it is equally necessary to free the State substantially, if not fully, from the crushing burden of debt repayment and interest payment liability.

8. The Sixth Finance Commission is already sized with the basic problems confronting the State finances including that of debt-repayment liability. While it is expected that the view point of the State Government in these respects will get due consideration, it is not possible, at this stage, to forecast what will be the ultimate effect of the recommendations of the Sixth Finance Commission on the finances of the State. At the same time, a tentative estimate as to financial resources for the Fifth Five-Year Plan has to be attempted on the basis of the past trends. For this exercise, it has been assumed that the State's share of the Central taxes will be on the same basis as is valid currently. Moreover, the balances from current resources are worked out at the 1973-74 rates of taxation. In the course of the discussions with the Planning Commission, certain tentative estimates have emerged as regards other quantities such as loans from the market, negotiated loans, share of small savings, unfunded debt, etc. In column 11 of Statement I, results of the exercise have been indicated. It will appear therefrom that the State's total resources on this reckoning will amount to Rs. 174.15 crores. In these calculations, net receipt on account of market loans is assumed at only Rs. 72.32 crores. There is no reason why the share of Bihar on this account should not be at least Rs. 100 crores to Rs. 125 crores. Moreover, the relief that will be available to the State Government on account of likely re-scheduling of debt-repayment and writing off of interest payment on account of unproductive loans taken in the past may also be expected to improve the size of the State's total resources. So far as additional resource mobilisation is concerned, the State Government expects to mobilise Rs. 275 crores during the Fifth Plan. Some of the measures under consideration of the State Government for raising additional resources are imposition of surcharge on land revenue, imposition of profession tax, entry tax of goods in Jamshedpur, improvement in collection of water rates and other taxes and dues. It is clear that the order of effort involved in the resource mobilisation as indicated here will stretch the capacity of the State to its maximum. However, even this will have to be matched by liberal assistance from the Centre to sustain a modest plan size of Rs. 1,520 crores. The national approach to the Fifth Five-Year Plan visualises, as one of its important objectives, reduction, if not removal, of the regional imbalances. This is possible only in terms of substantial transfer of resources to a backward State like Bihar which is lagging far behind the national level of development.

## APPENDIX A.

## STATEMENT GIVING THE DETAILS OF MEASURES OF ADDITIONAL TAXATION IMPLEMENTED BY THE STATE GOVERNMENT FROM 1969-70 AND THOSE FOR 1973-74 WITH THEIR YIELDS DURING EACH YEAR.

(Rupees in Crores.)

Serial no.	Head of Account.	1969-70, Actuals.	1970-71, Actuals.	1971-72, Actuals.	1972-73, Revised Estimate.	1973-74, Budget Estimate.	Total 3, 4, 5, 6 and 7.
1	2	3	4	5	6	7	8
<b>1 Changes in Tax Rates, etc.—</b>							
A. 1969-70—							
(1)	Increase in rate of Sales Tax on luxury goods by 2 per cent.	0.60	0.65	0.70	0.73	0.77	3.45
(2)	State Lottery (net)	(-)0.02	(-)0.13	0.18	0.12	0.70	0.85
	Total A	0.58	0.52	0.88	0.85	1.47	4.30
B. Concession or reduction in taxation							
	TOTAL 1—A+B	0.58	0.52	0.88	0.85	1.47	4.30
<b>2 Changes in Tax Rates, etc.—</b>							
C. 1970-71—							
(1)	Increase in the rate of registration fee.	..	0.72	1.00	1.01	1.02	3.75
(2)	10 per cent increase in Excise Duty on country liquor.	..	0.19	0.40	0.41	0.41	1.41
(3)	Increase in the general rate of Special Sales Tax by 1 per cent.	..	0.90	2.10	2.25	2.40	7.65
(4)	Urban land tax	..	..	..	..	0.15	0.15
(5)	Increase in Electricity Tariff	..	2.71	2.70	2.89	2.92	11.22
	Total—C	..	4.52	6.20	6.56	6.90	24.18
D—Concession or reduction in tax rates, etc.							
(i)	Exemption of land rent on holdings of 2 1/2 acres irrigated and 5 acres of unirrigated land.	..	(-)4.00	(-)4.00	(-)4.00	(-)4.00	(-)16.00
(ii)	Further exemption of land rent on holdings of additional 1 acre irrigated and 2 acres of unirrigated land.	..	..	(-)1.00	(-)1.50	(-)1.50	(-)4.00
(iii)	Withdrawal of toll on bridge	..	..	(-)0.15	(-)0.15	(-)0.15	(-)0.45
	Total—D	..	(-)4.00	(-)5.15	(-)5.65	(-)5.65	(-)20.45
	NET YIELD	..	0.52	1.05	0.91	1.15	3.73

## APPENDIX A—contd.

(Rupees in Crores.)

Serial no.	Head of Account.	1969-70, Actuals.	1970-71, Actuals.	1971-72, Actuals.	1972-73, Revised Estimate.	1973-74, Budget Estimate.	Total 3, 4, 5, 6 and 7.
1	2	3	4	5	6	7	8
<b>3 Changes in tax rates, etc.—</b>							
A. 1971-72.							
(1)	Increase in education cess from 6 1/4 per cent to 15 per cent of land rent (except exempted holdings).	..	..	0.15	0.15	0.15	0.45
(2)	Increase in surcharge on the licence fee on country liquor (1st June 1971) and increase in licence fee of wine having 50 per cent strength (13th September 1971).	..	..	0.08	0.16	0.16	0.40
(3)	First point sales tax on certain goods (1st November 1971).	..	..	0.78	1.40	1.50	3.68
(4)	Increase in Electricity duty on industrial consumption from 1 paise per unit to 2 paise per unit (1st September 1971).	..	..	0.60	2.10	2.24	4.94
(5)	Increase in rate of tax on fare and freight earned by owners of public service motor vehicles, also exemption granted for carriage of minerals by such vehicles was withdrawn (1st December 1971).	..	..	0.27	0.70	0.76	1.73
(6)	25 per cent surcharge on Stamp Duty (3rd January 1972).	..	..	0.06	1.50	1.55	3.11
(7)	Increase in rate of tax on Motor Spirit sales tax by 1 paise per litre (1st March 1972).	..	..	0.02	0.10	0.10	0.22
(8)	Revision of bus fares	..	..	0.30	0.82	1.20	2.32
TOTAL—3		..	..	2.26	6.93	7.66	16.85
B. Concession or reduction in tax		..	..	..	..	..	..
NET YIELD		..	..	2.26	6.93	7.66	16.85
<b>4 Changes in Tax rates etc.—</b>							
A. 1972-73.							
(1)	5 per cent increase in tax on country liquor (1st April 1972).	..	..	..	0.73	0.79	1.52
(2)	Increase in Sales Tax on fertilisers by 2 per cent and levy of sales tax at the rate of ten per cent on cooked food (1st April 1972).	..	..	..	0.34	0.36	0.70
(3)	Increase in rates of royalty on minor minerals (31st July 1972).	..	..	..	0.09	0.18	0.27
(4)	Health Cess at the rate of 20 per cent of land rent and urban holdings.	..	..	..	0.50	1.00	1.50
(5)	Increase in water rates by 33 1/2 per cent (1st May 1972).	..	..	..	0.45	0.91	1.36
Total—4		..	..	..	2.11	3.24	5.35
B. Concession or reduction in tax rates.		..	..	..	..	..	..
NET YIELD		..	..	..	2.11	3.24	5.35

## APPENDIX A—concl.d.

(Rupees in Crores).

Serial no.	Head of Account.	1969-70, Actuals.	1970-71, Actuals.	1971-72, Actuals.	1972-73, Revised Estimate.	1973-74, Budget, Estimate.	Total 3, 4, 5, 6; and 7.	
1	2	3	4	5	6	7	8	
<b>5 Changes in Tax rates etc.—</b>								
A. 1973-74.								
	(1) Withdrawal of exemption of land revenue.	..	..	..	..	5.50	5.50	
	(2) Re-introduction of toll on bridges	..	..	..	..	0.15	0.15	
	(3) Increase in Education Cess from 15 per cent to 25 per cent of the land rent.	..	..	..	..	0.80	0.80	
	(4) Increase in rates of Sales Tax ..	..	..	..	..	1.50	1.50	
	(5) Increase in rate of Tax on sale of motor spirit.	..	..	..	..	0.10	0.10	
	(6) Control on plucking of Kendu leaves.	..	..	..	..	0.60	0.60	
	(7) Increase in the rate of entertainment tax.	..	..	..	..	0.40	0.40	
	Total—5 ..	..	..	..	..	9.05	9.05	
	<b>TOTAL ..</b>	..	0.58	1.04	4.19	10.80	22.67	39.28

**STATEMENT I**

52 Plan.—(4)

Serial no.	Heads of Account.					Fourth Plan Estimates as approved by Planning Commission, October- November, 1969.	1969-70, Accounts.
1	2					3	4
1	Plan outlay	..	..	..	..	531.28	76.94
2	State's Budgetary Resources—						
	(1) Balance from Current Revenues at 1968-69 rates of taxation	..			..	60.31	(—)16.16
	(2) Loans from market (net)	..	..	..	..	17.00	2.83
	(3) Share of Small Savings	..	..	..	..	45.00	9.56
	(4) Unfounded debt (net)	..	..	..	..	16.70	14.28
	(5) Miscellaneous Capital Receipts (net)	..	..	..	..	(—)1,17.78	(—)14.75
	(6) Contribution of Public Enterprises—						
	(a) B. S. E. Electricity Board	..	..	..	..	42.00	6.66
	(b) Road Transport Corporation	..	..	..	..	0.55	0.31
	Total 2	..	..	..	..	63.78	2.73
3	Additional Taxation	..	..	..	..	100.00	0.58
4	Negotiated loans—						
	(a) State Government	..	..	..	..	5.00	1.53
	(b) Public Undertaking	..	..	..	..	24.50	8.80
5	State's Total Resources	..	..	..	..	193.28	13.64
6	Central Assistance	..	..	..	..	3,38.00	60.29
7	Gap in resources	..	..	..	..	..	3.01

[Rupees in Crores.]

1970-71, Accounts.	1971-72 Accounts.	1972-73		1973-74		Total of column 4 to 7 and 9.	Fifth Plan Estimate, 1974-79.
		Revised Estimate.	Budget Estimate.	L. E.			
5	6	7	8	9	10	11	
69.51	84.28	97.47	140.02	140.59	468.79	..	
(-)16.56	(-)39.90	(-)45.31	(-)23.40	(-)29.31	(-)1,47.24	(-)1,85.69*	
2.75	3.71	9.51	10.77	10.77	29.57	72.32	
5.59	12.96	16.00	17.00	24.15	68.26	1,30.00	
5.56	6.64	13.79	2.01	3.00	43.37	36.25	
(-)13.40	2.34	(-)3.82	(-)22.04	(-)22.04	(-)51.67	(-)1,33.29	
(-)2.84	5.76	7.57	8.90	8.92	26.07	1,11.00	
(-)0.09	(-)0.57	(-)0.61	(-)0.63	(-)0.63	(-)1.59	12.86	
(-)18.89	(-)9.06	(-)2.87	(-)7.39	(-)5.14	(-)33.23	43.65	
1.04	4.19	10.80	22.67	22.67	39.28	..	
0.57	2.17	1.50	1.75	3.20	8.97	30.00	
7.13	6.13	5.85	6.74	13.74	41.65	1,00.50	
(-)10.15	(-)3.43	15.28	23.77	34.47	56.67	1,74.15	
60.06	64.68	65.57	77.78	77.78	3,28.38	..	
19.60	16.17	16.62	38.47	28.34	83.74	..	

\* Includes receipt on account of Share of Central Taxes on the basis of the recommendations of the Fifth Finance Commission. The receipts on revenue account (in column 9 only) have been worked at 1973-74 rates of taxation.



## CHAPTER IV.

### THE FIFTH PLAN—APPROACH AND ASPECTS.

Our Constitution lays down as a directive principle of the State policy that the State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political shall govern all the institutions of national life. It has been provided further that the State shall direct its policy in such a manner as to secure the right of all men and women to an adequate means of livelihood, and to so distribute the ownership and control of material resources of the community as best to subserve the common good. Having regard to these principles, the National Development Council has approved of certain basic elements of policy in the approach to the Fifth Plan—

- (a) that a direct attack should be made on the problem of poverty, more specially, rural poverty by providing productive employment on as large a scale as feasible so as to raise the incomes and levels of consumption of the poorer sections of society ;
- (b) to ensure the provision of facilities for education, health, water-supply, etc., on the basis of agreed national minimum norms of social consumption within a realistic time-frame ; and
- (c) to provide for sufficient outlays and ensure adequate development of agriculture, industries, transport and communications to support the above programmes and to safeguard sustained growth of our economy during and beyond the Fifth Plan period.

2. In formulating our approach to the State Fifth Five-Year Plan, we have to bear these principles in mind, and also to take into consideration the special needs and circumstances of the State. The rate of growth of the net State domestic product has been lower than the average for all-India and there was actual deceleration of the rate of growth and virtual stagnation in the growth of per capita income after 1960-61. The per capita income of the State remains about 35 per cent lower than the average for all-India. About 74 per cent of the total population still remains below the poverty line. Under-employment and unemployment have been on the rise during the 1961—71 decade. The industrial structure is lop-sided. While there has been some development of long-gestation capital-intensive heavy industries chiefly in the mineral belt of the State, there has not been any significant growth of secondary and tertiary industries. The State's infra-structure of roads, irrigation, and power needs a good deal of strengthening. The State is lagging behind considerably in general literacy and education, in provision of health services and other basic social amenities. Due to the low resource base of the State, outlays in the State Plan have remained low resulting in very slow growth of the State's economy and unduly long delays in completion of projects of vital importance which has resulted among other things in rather low realisation of benefits from the investments already made.

3. After careful consideration of all aspects of the problems the State Government decided that the Fifth Plan of the State should be designed to achieve the following aims and objectives :—

- (i) to break the economic stagnation in the State, and raise the net State output by atleast 50 per cent and the per capita income by 28 per cent during the Fifth Plan period ;

- (ii) to maximise productive employment and reduce under-employment and unemployment, more specially in rural areas so as to promote fuller utilisation of the man-power available for the tasks of development, reduce social tensions, give incomes to the poorer sections of the population, and remove abject poverty within a period of 7—10 years ;
- (iii) to provide necessary facilities for various items of public consumption such as elementary education, public health, rural water-supply, rural roads, rural electrification, home-sites for landless labourers, and slum clearance on the basis of the minimum national norms laid down by the National Development Council ;
- (iv) to strengthen the infra-structure of irrigation, power and roads for ensuring the achievement of the above objectives during the Fifth Plan and the sustained growth of economy of the State beyond the Fifth Plan ; and
- (v) to reduce the regional and inter-sectional disparities within the State.

4. If the net output of the State is raised by 50 per cent during the Fifth Plan, the average per capita income of Bihar would rise from Rs. 225 to Rs. 312 per annum at constant 1960-61 prices. As the average per capita income of India for 1970-71 was Rs. 347 (provisional) at constant 1960-61 prices, Bihar's per capita income, even with 50 per cent increase in the net State output will still remain below the all-India average by about 25 per cent assuming that the net increase in the average per capita income of India during the period 1970-71 to 1978-79 will not be higher than 25 per cent. With achievement of a 50 per cent increase in the net State output by the end of the Fifth Plan, it would be feasible to step up the economic growth sufficiently in the Sixth Five-Year Plan for Bihar's per capita income to rise to the All-India level by then. While it would be justified to aim at a more rapid expansion of the net output of the State and per capita income, we have to take note of the constraints arising from limitation of both financial and material resources (e. g. fertilisers, steel, cement, etc).

5. It should be feasible to raise the net State output by 50 per cent if all-cut and well co-ordinated measures are taken from now to step-up the tempo of development in the key sectors of the economy, and the level of outlay in the Fifth Plan is raised sufficiently with mobilisation of additional resources by the State Government, liberal plan assistance by the Centre, optimum use by developmental agencies in the State of funds available from institutional sources, and by stimulating larger private investments in agriculture and industries, more specially medium and small-scale industries in the State.

6. The main elements of the strategy visualised for securing a rapid increase in the net State product during the Fifth Plan were—

- (i) strengthening and revitalising area development programmes in the major irrigation commands for promoting optimum utilisation of the irrigation potential available, introduction of multiple cropping, and high-yielding varieties with related inputs ;
- (ii) accelerating the progress of the Gandak Project and other irrigation schemes which have already reached an advanced stage of execution for bringing an additional area under irrigation effectively during the Fifth Plan period ;
- (iii) pushing ahead a massive ground-water development and rural electrification programme so as to increase the area under lift irrigation substantially ;
- (iv) enforcement of the land ceiling law and other land reforms ;

- (v) promoting full development of ancillaries and small scale industries in the large industrial complexes of Jamshedpur, Ranchi, Bokaro, Sindri, Dalmianagar and Barauni and agro-industries elsewhere ;
- (vi) promoting the establishment of secondary and tertiary industries on a large scale in the private sector/joint sector ;
- (vii) strengthening of the electric transmission and distribution system, and further expansion of power generation capacity ; and
- (viii) giving higher priority to road development programme for activating the economy, opening up new areas for development and reducing regional imbalances.

7. Our efforts to raise the per capita income of the State may become neutralised in part of the trend towards rise in population growth observed over several decades is not halted, and brought under effective control. It is necessary, therefore, to give the highest priority to the further strengthening of family planning measures in the Fifth Plan.

8. The State Government attach considerable importance to a rapid expansion of employment-intensive programmes of development, such as minor irrigation (including ground water schemes), soil conservation, area development, dairying and animal husbandry, forestry, fisheries, warehousing and marketing small scale industries including agro-industries, roads and various special programmes, e. g., S. F. D. A., M. F. A. L., C. S. R. S. and D. P. A. P. The existence of large scale under-employment and unemployment is a major cause of the present 'day social tensions in Bihar. There is also need for fuller utilisation of the man-power available in the State for promoting the development of the country. The rapid expansion of the employment-intensive programmes referred to above will thus help not only to reduce unemployment and under-employment and thereby raise the incomes of the rural poor and remove object poverty, but will also contribute significantly to a more rapid build-up of the economy, promote fuller utilisation of the man-power available, and help indirectly in reducing regional and inter-sectional disparities and social tensions arising from such causes.

9. Bihar is lagging behind a good deal in general literacy and education, provision of health services; rural roads and other items of social consumption. A massive effort for removing these deficiencies is required under the National Minimum Needs Programme.

10. While the State Government was engaged in preparation of the Fifth Plan on the basis of minimum development requirement as mentioned above, the Planning Commission tentatively indicated that the size of the Fifth Plan of the State should broadly be double the size of the Fourth Plan. It was not also clearly known whether the outlays on the Minimum Needs Programme would be accommodated within the State Fifth Plan, particularly because the Planning Commission had earmarked a separate fund for this programme. Subsequently the Planning Commission in their letter of 2nd June, 1973 indicated that the size of the State Plan should be limited to Rs. 1,225 crores inclusive of the outlays on the Minimum Needs Programmes. The outlay on the Minimum Needs Programme was indicated to be of the order of Rs. 276.80 crores. As is well known, except for rural electrification programme and rural roads, all other items of the programme are items of social service or social consumption. Deducting the outlay on the Minimum Needs Programme from the ceiling indicated by the Planning Commission, the size of the State Fifth Plan would come to only Rs. 948.20 crores. If appropriate adjustment is made for the rise in prices, a plan of Rs. 948.20 crores would be only marginally higher than the original outlay of the Fourth Plan. In real terms this would hardly imply any significant

step-up in the development effort. The Minimum Needs Programme inevitably casts considerable liability on the State Plan in as much as larger funds have to be provided in relevant sectors for meeting the administrative and other supporting requirements to sustain this programme. This reduces the availability of funds for productive core sectors, such as, irrigation, power, roads, agricultural production, etc. The requirements of some of these sectors for projects and schemes spilling over from the Fourth Plan are of considerable magnitude. Thus, in irrigation roads and power sectors they will be of the order of Rs. 144 crores, Rs. 52 crores and Rs. 36 crores respectively. Having regard to these factors and keeping in view the imperative need for stepping-up the development effort during the Fifth Plan so as to make a significant beginning in clearing the back-log of under-development, the State Government examined the entire issue of Fifth Plan size.

11. The Planning Commission indicated that for a Plan of the size of Rs. 1,225 crores the State Government were expected to mobilise additional resources of the order of Rs. 200 crores. Keeping in view the advice of the Planning Commission and the constraint of resources on one hand and the minimum size of development effort required, on the other, the State Government explored fully the possibility of bringing the size of the Plan as near the limits indicated by the Planning Commission as possible. As explained earlier in the chapter on Financial Resources, the State Government in their anxiety to ensure the minimum tempo of development effort decided that the effort for additional mobilisation of resources during the Fifth Plan be stepped-up substantially so that additional resources of the order of Rs. 275 crores are available during the Fifth Plan period. This degree of effort will stretch the capacity of the State to the maximum. On the other hand, the sectoral proposals were examined and re-examined so as to maintain only the inevitable core. As a result of this exercise, the minimum size of the Fifth Plan now proposed is of the order of Rs. 1,520 crores. Needless to say that even with extraordinary effort for additional mobilisation of resources, the minimum size of Rs. 1,520 crores can be sustained only if there is a considerable increase in the transfer of resources from the Central Government in favour of the State. Any effective programme for reduction in inequality which is one of the basic aims of the National Fifth Plan must consciously seek to operate selectively on regions which have been lagging behind. It must ensure that backward areas such as Bihar have their due share in rising production and expanding incomes. This can be possible only by a more liberal pattern of the central assistance for backward States like Bihar. It will also necessitate fresh thinking on the allocation of resources such as the market and negotiated loans for the State Government as well as the State public undertakings. It will also require that the financial position of the State is strengthened by substantial relief in the debt-repayment and interest-payment liability. It is only by combination of all these measures that the regional inequality can be reduced, if not removed altogether. If adequate measures are not taken on these lines, the inevitable result will be that the regional inequalities will be enhanced further and there will be little hope for a backward State like Bihar of catching up with the advanced States.

12. The inter-sectoral allocation of the proposed Fifth Plan of Rs. 1,520 crores is indicated in Annexure A. While making the inter-sectoral allocations, the priorities mentioned earlier have been kept in view, consistance, however, with the total size of the Plan. The Minimum Needs Programme has been fully incorporated in these proposals.

13. The agricultural production programmes account for Rs. 192.26 crores. Irrigation and Power account for Rs. 723.54 crores. Industries and Mineral Development account for Rs. 79.23 crores. Transport and Communication account for Rs. 144.45 crores. An outlay of Rs. 324.19 crores is visualised on the entire Social Services sector which includes Rs. 134.72 crores for General Education, Rs. 64.44 crores for Health, Rs. 23.64 crores for Nutrition, Rs. 43.28 crores for Water Supply and Rs. 31 crores for Housing. Sectoral programmes and projects with year-wise phasing of physical and financial targets are discussed in detail in Part II.

14. The plateau areas of Chotanagpur and Santhal Parganas where most of the tribal population of this State live require special attention in the matter of development programmes. In the general context of extreme under-development of the State as a whole, the problem of reducing intra-regional imbalances becomes all the more acute. However, within the constraint of available resources care has been taken to earmark outlays in various sectors of development for the Chotanagpur and Santhal Pargana areas. Details of such earmarked outlays are available in Statement II. It is needless to say that these allocations will have to be further worked out and made more precise as the plan progresses. The total outlay visualised for the Chotanagpur and Santhal Parganas areas comes to Rs. 390 crores which constitutes 26 per cent of the total outlay of the Fifth Plan of the State. While devising the programmes under various sectors the potentialities and the specialities of the area have been fully kept in view. Similarly the proposals visualise substantial improvement in the standard of social services in this area. In the chapters on Sectoral Programmes the Chotanagpur and Santhal Parganas content of the proposals has been indicated in detail.

15. The other area in the State which is relatively backward consists of the plains of North Bihar. This area has a large potential for development of agriculture, agro-based industries small and village industries, and other labour intensive industries. This area has suffered for lack of adequate communications with the rest of the Bihar and very low level of electricity consumption. The proposed plan visualises intensive development in the command areas of the major and medium irrigation projects in North Bihar. Steps have already been initiated for setting up suitable area development agencies in this area. With coming into force of such agencies, it is expected that utilisation of irrigation potential will be stepped up considerably and integrated effort made for co-ordinated supply of inputs for rapid and intensive agricultural development which in its wake will bring about the growth of agro-based industries as also the small and village industries. The plan proposals also visualise completion of the bridge across the Ganges which will remove a major bottleneck in the communication facility. It is also proposed to set up a Thermal Power Plan of 220 MW at Muzaffarpur. Besides, under the Minimum Needs Programme the standard of social services in this region will be improved substantially during the Fifth Five-Year Plan.

16. The problem of removing intra-State imbalances in an extremely under developed State with the lowest per capita income in the whole country and 74 per cent of its total population living below the poverty line presents a stupendous task. In the nature of things, there are severe limits on the capacity of the State to lay apart sizeable funds for development of the backward areas. Indeed, the problem of intra-regional imbalances in a State like Bihar has to be viewed more as a national problem. It is in this context that the need for having special corpus of fund at the national level for development of the backward States is felt acutely. While within the constraint of resources, it is proposed to lay adequate emphasis on the development of backward regions within the State, it is obvious that larger outlays will be required if this problem has to be tackled effectively. From this view point, it is imperative that the system of transfer of resources from the Centre to the State is so worked out as to take into account special needs of backward regions in a backward State. To the extent, extra resources are made available to the State over and above the normal size of the Plan, it should be possible to undertake and implement special programmes of development for the backward regions on a scale larger than that visualised in the present Draft Fifth Plan.

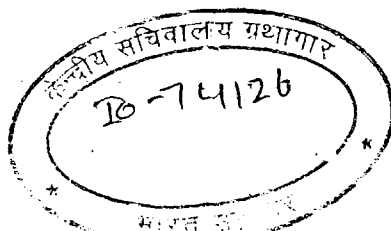
17. The statements I, II, III and IV in the form prescribed by the Planning Commission which give the summary of financial outlays, physical targets and the special area content are appended to this Chapter.

## ANNEXURE 'A'

## STATEMENT SHOWING SECTORAL ALLOCATION FOR FIFTH FIVE-YEAR PLAN

(Rupees in lakhs)

Serial no.	Head/Sub-head	Minimum Needs Programme.	Fifth Plan outlay (exclusive of M.N.P.).	Total Fifth Plan outlay.
1	2	3	4	5
1	Agriculture education and research .. .. .	..	300.00	300.00
2	Agriculture Production .. .. .	..	1716.00	1716.00
	(i) Agriculture Department .. .. .	..	1616.00	1616.00
	(ii) Cane Department (Cane Development) .. .. .	..	80.00	80.00
	(iii) Forest Department (Lac Development) .. .. .	..	20.00	20.00
3	Revenue Department .. .. .	800.00	1700.00	2500.00
	(a) Consolidation of Holdings .. .. .	..	..	..
	(b) Bringing Land Record up-to-date .. .. .	..	..	..
4	Area Development .. .. .	..	300.00	300.00
5	Minor Irrigation .. .. .	..	10500.00	10500.00
	(i) Irrigation Department .. .. .	..	1500.00	1500.00
	(ii) Agriculture Department .. .. .	..	8500.00	8500.00
	(iii) Community Development .. .. .	..	500.00	500.00
6	Animal Husbandry .. .. .	..	990.00	990.00
7	Dairy and Milk Supply .. .. .	..	702.00	702.00
8	Forest Department .. .. .	..	735.00	735.00
9	Soil Conservation .. .. .	..	870.00	870.00
	(i) Agriculture Department .. .. .	..	700.00	700.00
	(ii) Forest Department .. .. .	..	170.00	170.00
10	Fisheries .. .. .	..	263.00	263.00
	(i) Agriculture Department .. .. .	..	250.00	250.00
	(ii) Co-operation Department .. .. .	..	13.00	13.00
11	Warehousing and Marketing .. .. .	..	350.00	350.00
	(i) Agriculture Department .. .. .	..	300.00	300.00
	(ii) Co-operative Department .. .. .	..	50.00	50.00
	<b>Total—Agriculture Programmes</b> .. .. .	<b>800.00</b>	<b>18426.00</b>	<b>19226.00</b>
12	Co-operation .. .. .	..	1418.00	1418.00
13	Community Development (Excluding R.E.O.) .. .. .	..	1621.01	1621.01
14	Panchayat .. .. .	..	328.99	328.99
	<b>Total—C.D. and Co-operation</b> .. .. .	<b>..</b>	<b>3568.00</b>	<b>3568.00</b>



## ANNEXURE 'A'

## STATEMENT SHOWING SECTORAL ALLOCATION FOR FIFTH FIVE-YEAR PLAN

(Rupees in lakhs)

Serial no.	Head/Sub-head	Minimum Needs Programme.	Fifth Plan outlay (exclusive of M.N.P.).	Total Fifth Plan outlay.
1	2	3	4	5
15	Irrigation .. .. .	..	25236.00	25236.00
	(i) R.V.P. Department .. .. .	..	13778.00	13778.00
	(ii) Irrigation Department .. .. .	..	11458.00	11458.00
16	Flood Control .. .. .	..	3618.00	3618.00
	(i) R.V.P. Department .. .. .	..	864.00	864.00
	(ii) Irrigation Department .. .. .	..	2754.00	2754.00
17	Power .. .. .	..	4500.00	39000.00
	<b>Total—Irrigation and Power</b> .. .. .	..	<b>4500.00</b>	<b>67854.00</b>
18	Industries and Mining—			
	(i) Large and Medium Industries .. .. .	..	3900.00	3900.00
	(ii) Village and Small Industries .. .. .	..	3263.00	3263.00
	(a) Industries Department .. .. .	..	3063.00	3063.00
	(b) Co-operative Department (Industrial Co-operative and Handloom). .. .. .	..	200.00	200.00
	(iv) Mineral Development .. .. .	..	760.39	760.39
	<b>Total—Industries and Mining</b> .. .. .	..	<b>7923.39</b>	<b>7923.39</b>
19	Roads .. .. .	..	6000.00	7800.00
	(a) P.W.D. Roads .. .. .	..	7000.00	7000.00
	(b) L.S.-G. Roads .. .. .	..	500.00	500.00
	(c) C.D. Roads .. .. .	..	6000.00	6300.00
20	Road Transport .. .. .	..	600.00	600.00
21	Inland Water Transport .. .. .	..	15.00	15.00
22	Tourism .. .. .	..	30.00	30.00
	<b>Total—Transport and Communication</b> .. .. .	..	<b>6000.00</b>	<b>8445.00</b>
23	Education .. .. .	..	6472.00	7400.00
	(a) General Education .. .. .	..	5872.00	7000.00
	(b) School Feeding Programme .. .. .	..	600.00*	600.00
	(c) Technical Education .. .. .	..	400.50	400.50

## ANNEXURE 'A'

## STATEMENT SHOWING SECTORAL ALLOCATION FOR FIFTH FIVE-YEAR PLAN

(Rupees in lakhs)

Serial no.	Head/Sub-head	Minimum Needs Programme.	Fifth Plan outlay (excluding of M.N.P.).	Total Fifth Plan outlay.
1	2	3	4	5
23	Health—			
	(a) Health Department .. .. .	4044.00	2400.00	6444.00
	(b) Water-Supply .. .. .	2900.00	1428.00	4328.00
	(i) Urban Water-Supply (L.S.-G. Department) .. .. .	..	1428.00	1428.00
	(ii) Rural Water-Supply .. .. .	2900.00	..	2900.00
	(a) Well Construction (C.D. & P. Department)	1119.00*	..	1119.00†
	(b) Piped Water-Supply (P.H.E. Department)	1781.00	..	1781.00
24	Nutrition .. .. .	2164.00	200.00	2364.00
25	Housing .. .. .	..	3100.00	3100.00
26	Urban Development .. .. .	600.00	125.00	725.00
27	Welfare of Backward Classes .. .. .	..	1203.00	1203.00
28	Social Welfare .. .. .	..	112.11	112.11
	(i) Jails and Correctional Services .. .. .	..	30.00	30.00
	(ii) Welfare Department .. .. .	..	272.00**	2436.00
29	Labour and Labour Welfare .. .. .	..	270.00	270.00
	(i) Labour Welfare .. .. .	..	..	..
	(ii) Craftsmen Training Schemes .. .. .	..	..	..
	<b>Total—Social Services .. .. .</b>	<b>16180.00</b>	<b>16238.61</b>	<b>32418.61</b>
	<b>MISCELLANEOUS</b>			
30	Statistics .. .. .	..	200.00	200.00
31	Planning Machinery .. .. .	..	140.00	140.00
32	Information and Publicity .. .. .	..	30.00	30.00
33	Administrative Buildings .. .. .	..	1685.00	1685.00
34	Evaluation .. .. .	..	10.00	10.00
35	Public Co-operation .. .. .	..	..	..
	<b>Total—Miscellaneous .. .. .</b>	<b>..</b>	<b>2065.00</b>	<b>2065.00</b>
	<b>GRAND TOTAL .. .. .</b>	<b>27480.00</b>	<b>124520.00</b>	<b>452000.00</b>

\*For School Feeding Programme under Nutrition

†Includes requirement for tubewells also to be executed by P.H.E.D.

\*\*Includes administration and transport cost of Nutrition.



**STATEMENT I.**  
**DRAFT FIFTH FIVE-YEAR PLAN.**  
**Outlay and Expenditure Summary.**

Serial no.	Head/Sub-head.	Fourth Plan.				Fifth Plan Outlay Proposed.					
		Approved Fourth Plan outlay.	Approved outlay for 1973-74.	Anticipated expenditure, 1973-74.	Expenditure during the Fourth Plan.	Total.	Capital outlay.	Foreign Exchange.	Annual Plan for 1974-75.		
									Total.	Capital.	Foreign Exchange.
1	2	3	4	5	6	7	8	9	10	11	12
	<b>AGRICULTURE EDUCATION AND RESEARCH.</b>	2,06.00	35.00	35.00	1,36.49	3,00.00	75.55	..	49.73	12.90	..
	Agriculture Production ..	12,34.00	2,40.00	2,40.00	6,63.62	17,16.00	3,66.61	..	4,40.41	2,44.41	..
	Land Reforms ..	6,70.00	1,50.00	1,50.00	5,44.76	25,00.00	..	..	3,66.76	..	..
	Minor Irrigation ..	54,00.00	12,00.00	12,00.00	40,72.68	1,05,00.00	1,05,00.00	..	18,25.00	18,25.00	..
	Soil Conservation ..	3,50.00	1,15.00	1,15.00	2,78.82	8,70.00	6,80.00	..	1,19.00	80.00	..
	Area Development Programme	1,00.00	25.00	25.00	86.22	3,00.00	..	..	50.00	50.00	..
	Animal Husbandry ..	3,00.00	1,00.00	1,00.00	2,70.48	9,90.00	2,13.56	..	1,56.00	44.10	..
	Dairy and Milk Supply ..	3,50.00	1,00.00	1,00.00	2,99.29	7,02.00	5,04.60	36.00	1,05.80	86.90	2.00
	Forests ..	4,50.00	90.00	90.00	4,05.47	7,35.00	2,05.00	..	1,47.00	..	..
	Fisheries ..	2,00.00	50.00	50.00	1,47.06	2,63.00	..	..	87.94	50.70	..
	Warehousing, Marketing and Storage.	50.00	1,00.00	1,00.00	1,23.81	3,50.00	1,68.29	..	88.68	74.16	..
	<b>I. TOTAL—AGRICULTURE PRODUCTION PROGRAMME</b>	<b>93,10.00</b>	<b>22,05.00</b>	<b>22,05.00</b>	<b>70,28.70</b>	<b>1,92,26.00</b>	<b>1,27,13.61</b>	<b>36.00</b>	<b>34,36.32</b>	<b>24,68.17</b>	<b>2.00</b>
	Co-operation ..	7,20.00	1,50.00	1,50.00	6,50.50	14,18.00	8,24.33	..	3,30.74	1,60.40	..
	Community Development..	12,00.00	2,50.00	2,50.00	11,46.00	16,21.01	7,23.50	..	4,50.25	1,53.40	..
	Panchayats ..	60.00	25.00	12.00	13.81	5,28.99	47.69	..	1,08.99	9.00	..
	<b>II. TOTAL—COMMUNITY DEVELOPMENT, CO-OPERATION AND PANCHAYATS.</b>	<b>19,80.00</b>	<b>4,25.00</b>	<b>4,12.00</b>	<b>18,10.31</b>	<b>35,68.00</b>	<b>15,95.52</b>	<b>..</b>	<b>8,89.98</b>	<b>3,22.80</b>	<b>..</b>

Irrigation	..	1,11,00.00	36,24.00	36,24.00	1,30,46.01	2,52,36.00	2,52,36.00	..	50,00.00	50,00.00	..
Flood Control	..	10,00.00	2,80.00	2,80.00	14,98.26	36,18.00	36,18.00	..	7,23.00	7,23.00	..
Power	..	1,50,00.00	39,14.00	39,14.00	1,35,76.67	4,35,00.00	4,30,00.00	30,80.00	91,44.60	91,44.60	18,80.00
<b>III. TOTAL—IRRIGATION &amp; POWER.</b>		<b>2,71,00.00</b>	<b>78,18.00</b>	<b>78,18.00</b>	<b>2,81,20.94</b>	<b>7,23,54.00</b>	<b>7,18,54.00</b>	<b>30,80.00</b>	<b>1,48,67.60</b>	<b>1,48,67.60</b>	<b>18,80.00</b>
Large and Medium Industries		7,00.00	2,10.00	2,10.00	7,55.19	39,00.00	36,00.00	..	5,84.25	4,08.98	..
Mineral Development		3,52.00	63.00	63.00	2,24.66	7,60.39	5,81.35	0.91	1,79.63	1,66.44	..
Village and Small Industries		7,00.00	2,75.00	2,75.00	6,45.62	32,63.00	19,65.15	..	4,49.92	3,14.95	..
<b>IV. TOTAL—INDUSTRIES &amp; MINING.</b>		<b>17,52.00</b>	<b>5,48.00</b>	<b>5,48.00</b>	<b>16,25.47</b>	<b>79,23.39</b>	<b>61,46.50</b>	<b>0.91</b>	<b>12,13.80</b>	<b>8,90.37</b>	<b>..</b>
Roads	..	34,23.00	8,00.00	8,00.00	31,61.44	1,38,00.00	1,32,00.00	..	27,12.21	27,12.21	..
Road Transport	..	3,53.00	98.00	98.00	3,53.00	6,00.00	6,00.00	69.00	90.00	90.00	10.86
Inland Water Transport	..	8.00	4.00	..	..	15.00	4.00	..	4.00	2.00	..
Other Transport	..	..	..	..	..	..	..	..	..	..	..
Tourism	..	20.00	5.00	5.00	23.74	30.00	17.00	..	7.50	5.00	..
<b>V. TOTAL—TRANSPORT AND COMMUNICATION.</b>		<b>38,04.00</b>	<b>9,07.00</b>	<b>9,03.00</b>	<b>35,38.18</b>	<b>1,44,45.00</b>	<b>1,38,21.00</b>	<b>69.00</b>	<b>28,13.71</b>	<b>28,09.21</b>	<b>10.86</b>
General Education	..	38,38.00	8,50.00	8,50.00	28,14.85	1,34,72.00	41,42.05	..	16,80.21	7,20.32	..
Technical Education	..	3,10.00	50.00	50.00	1,19.50	4,00.50	3,09.20	11.00	88.25	74.00	..
Health	..	15,28.00	3,20.00	3,20.00	7,28.00	64,44.00	26,43.00	..	6,46.18	2,46.18	..
Family Planning	..	..	..	..	..	..	..	..	..	..	..
Nutrition Programme	..	..	..	..	..	23,64.00	..	..	4,00.00	..	..
Water Supply	..	17,50.00	3,70.00	3,70.00	12,79.36	43,28.00	43,28.00	..	7,85.00	7,85.00	..
Housing	..	7,50.00	2,58.00	2,58.00	6,02.02	31,00.00	30,50.00	..	3,74.00	3,74.00	..
Urban Development	..	90.00	19.00	19.00	82.58	7,25.00	..	..	1,45.00	..	..
Welfare of Backward Classes	..	5,90.00	2,14.00	2,14.00	6,04.64	12,03.00	45.00	..	2,03.80	10.65	..
Social Welfare	..	21.00	5.00	5.00	10.33	1,12.11	35.00	..	18.00	4.00	..
Labour and Labour Welfare	..	2,50.00	45.00	45.00	1,52.63	2,70.00	1,46.00	..	42.46	28.00	..
<b>VI. TOTAL—SOCIAL SERVICES</b>		<b>91,27.00</b>	<b>21,31.00</b>	<b>21,31.00</b>	<b>63,93.91</b>	<b>3,24,18.61</b>	<b>1,46,98.25</b>	<b>11.00</b>	<b>43,82.90</b>	<b>22,42.15</b>	<b>..</b>

## STATEMENT I—concl'd.

## DRAFT FIFTH FIVE-YEAR PLAN

## Outlay and Expenditure Summary

Serial no.	Head/Sub-head.	Fourth Plan				Fifth Plan Outlay Proposed						
		Approved Fourth Plan outlay.	Approved outlay for 1973-74.	Anticipated expenditure, 1973-74.	Expenditure during the Fourth Plan.	Total.	Capital outlay.	Foreign Exchange.	Annual Plan for 1974-75			
									Total.	Capital.	Foreign Exchange.	
1	2	3	4	5	6	7	8	9	10	11	12	
	Statistics .. ..	20.00	4.00	4.00	7.62	2,00.00	51.22	..	29.56	0.25	..	
	Information & Publicity ..	25.00	17.00	17.00	28.39	30.00	8.25	..	4.02	1.65	..	
	Planning Machinery ..	..	..	..	..	1,40.00	..	..	29.35	..	..	
	Evaluation ..	5.00	4.00	4.00	7.09	10.00	..	..	2.00	..	..	
	Others ..	..	..	..	..	..	..	..	..	..	..	
	Administrative Building ..	..	..	..	..	16,85.00	16,85.00	..	3,30.00	3,30.00	..	
	Public Co-operation ..	5.00	..	..	..	..	..	..	..	..	..	
	VII. TOTAL—MISCELLANEOUS	55.00	25.00	25.00	43.10	20,65.00	17,44.47	..	3,94.93	3,31.90	..	
	GRAND TOTAL ..	5,31,28.00	1,40,59.00	1,40,42.00	4,85,60.61	15,20,00.00	12,25,73.35	31,96.91	2,79,99.24	2,39,32.20	18,92.86	

## ANNEXURE II

## STATEMENT II

STATE—BIHAR.

## DRAFT FIFTH FIVE-YEAR PLAN

## Outlays for Backward Areas.

(For Chotanagpur Division and Santhal Parganas District only.)

(Rupees in lakhs)

Name of the Backward Region.	Fourth Plan					Fifth Plan Outlay.						Total.	
	Outlay.	Likely expenditure.	Agri-culture & allied programme.	Medium Irrigation and Flood control.	Power ex-cluding major generation and Trunk Trans-mission and dis-tribution.	Industry and minerals.	Transport and communica-tion.	Education including Technical education.	Water-supply.	Other social service.	Miscel-laneous.		
1	2	3	4	5	6	7	8	9	10	11	12	13	
I. Chotanagpur Division and Santhal Parganas District.	1,28,99.72*	1,27,01.65	70,47.55	1,02,46.16	25,60.00**	42,60.68	21,63.30	43,12.91	12,33.18	67,52.20	4,28.72	3,90.04	70**

(\* ) This does not include outlays on (a) Irrigation, (b) Handloom, (c) Tourism, and (d) Minor Irrigation (concerning Irrigation Department) for which figures are not available. It, however, includes the outlay on power generation, transmission and distribution of electricity in this area.

(\*\* ) This figure does not include Rs. 94.45 crores on Power Generation which will be invested in this area. Besides the proposed provision of Rs. 1,35.16 lakhs in the Fifth Plan on Transmission and distribution also includes a sizeable outlay for this area, which is being worked out.

## ANNEXURE II.

## STATEMENT III.

## DRAFT FIFTH FIVE-YEAR PLAN.

## Programmewise Outlay and Expenditure.

Name of the State—Bihar.

(Rs. in lakhs.)

Programmes.	Fourth Plan approved outlay.	Approved outlay for 1973-74.	Likely expenditure 1973-74.	Likely expenditure during Fourth Plan.	Fifth Plan Total outlay.	Annual Plan 1974-75 outlay.
1	2	3	4	5	6	7
<b>I. AGRICULTURE PROGRAMMES.</b>						
<b>(i) Agriculture Education and Research—</b>						
(1) Agriculture Education .. .. .	2,06.00	35.00	35.00	1,36.49	3,00.00	49.73
(2) Agriculture Research .. .. .						
<b>TOTAL—(1) AND (2) .. .. .</b>	<b>2,06.00</b>	<b>35.00</b>	<b>35.00</b>	<b>1,36.49</b>	<b>3,00.00</b>	<b>49.73</b>
<b>(ii) Agriculture—</b>						
(1) Extension, Training and Farmer's Education	1,47.19	28.48	28.48	82.39	2,86.22	98.42
(2) Improved Seed Programme .. .. .	71.30	22.25	22.25	71.01	3,11.02	1,23.30
(3) Manures and Fertilizers .. .. .	8.00	2.00	2.00	4.05	96.11	27.04
(4) Plant Protection .. .. .	1,97.00	25.00	25.00	93.70	2,05.30	43.41
(5) Agricultural Implements and Machinery including Agro-Industries Corporation.	8.00	5.00	5.00	16.07	54.29	18.99
(6) Agriculture Statistics .. .. .						
(7) H.Y.V.J.A.D.I. Multiple Cropping and Other Intensive Cultivation Programme.	4,00.00	72.50	72.50	1,98.53	2,80.13	61.97
(8) Lac Development .. .. .	16.00	3.00	3.00	9.69	20.00	4.00
(9) Land Reforms (including consolidation of holdings.)	6,70.00	1,50.00	1,50.00	5,44.76	25,00.00	3,66.76
(10) Others .. .. .	386.51	81.77	81.77	188.18	462.93	63.28
<b>TOTAL—(1) TO (10) .. .. .</b>	<b>19,04.00</b>	<b>3,90.00</b>	<b>3,90.00</b>	<b>12,08.38</b>	<b>42,16.00</b>	<b>8,07.17</b>
<b>(iii) Minor Irrigation .. .. .</b>	<b>54,00.00</b>	<b>12,00.00</b>	<b>12,00.00</b>	<b>40,72.68</b>	<b>1,05,00.00</b>	<b>18,25.00</b>
<b>(iv) Soil Conservation .. .. .</b>	<b>3,50.00</b>	<b>1,15.00</b>	<b>1,15.00</b>	<b>2,78.82</b>	<b>8,70.00</b>	<b>1,19.00</b>
<b>(v) Area Development .. .. .</b>	<b>1,00.00</b>	<b>25.00</b>	<b>25.00</b>	<b>86.22</b>	<b>3,00.00</b>	<b>50.00</b>
<b>(vi) Animal Husbandry .. .. .</b>	<b>300.00</b>	<b>1,00.00</b>	<b>1,00.00</b>	<b>270.48</b>	<b>990.00</b>	<b>156.00</b>
<b>(vii) Dairy and Milk Supply .. .. .</b>	<b>3,50.00</b>	<b>1,00.00</b>	<b>1,00.00</b>	<b>2,99.29</b>	<b>7,02.00</b>	<b>1,05.80</b>
<b>(viii) Forests .. .. .</b>	<b>4,50.00</b>	<b>90.00</b>	<b>90.00</b>	<b>4,05.47</b>	<b>7,35.00</b>	<b>1,47.00</b>
<b>(ix) Fisheries .. .. .</b>	<b>2,00.00</b>	<b>50.00</b>	<b>50.00</b>	<b>1,47.06</b>	<b>2,63.00</b>	<b>87.94</b>
<b>(x) Warehousing and Storage .. .. .</b>	<b>10.00</b>	<b>12.00</b>	<b>12.00</b>	<b>23.81</b>	<b>50.00</b>	<b>3.00</b>
<b>(xi) Marketing .. .. .</b>	<b>40.00</b>	<b>88.00</b>	<b>88.00</b>	<b>1,00.00</b>	<b>3,00.00</b>	<b>85.68</b>
<b>(xii) Small Farmers and Agriculture Labour .. .. .</b>	<b></b>	<b></b>	<b></b>	<b></b>	<b></b>	<b></b>
<b>TOTAL—(iii) TO (xii) .. .. .</b>	<b>72,00.00</b>	<b>17,80.00</b>	<b>17,80.00</b>	<b>56,83.83</b>	<b>1,47,10.00</b>	<b>25,79.42</b>

## ANNEXURE II—contd.

## STATEMENT III.

## DRAFT FIFTH FIVE-YEAR PLAN.

## Programmewise Outlay and Expenditure.

Name of the State—Bihar.

(Rs. in lakhs.)

Programmes.	Fourth Plan approved outlay.	Approved outlay for 1973-74.	Likely expenditure 1973-74.	Likely expenditure during Fourth Plan.	Fifth Plan Total outlay.	Annual Plan 1974-75 outlay.
1	2	3	4	5	6	7
<i>(xviii)</i> Co-operation—						
(1) Agricultural Credit .. .. .	2,45.55	59.85	59.85	3,63.67	5,99.44	1,68.21
(2) Marketing .. .. .	63.70	5.40	5.40	18.89	1,22.62	24.52
(3) Processing other than sugar factories and large processing units.	1,44.00	29.85	29.85	59.35	2,11.56	42.31
(4) Co-operative Sugar Factories .. .. .	35.00	1.00	1.00	57.00	1,00.00	20.00
(5) Co-operative Farming .. .. .	13.45	..	..	1.87	5.00	1.00
(6) Urban Consumer Co-operatives .. .. .	25.30	7.12	7.12	17.64	36.85	7.87
(7) Co-operative Storage .. .. .	67.50	9.94	9.94	38.18	97.88	19.58
(8) Additional Department Staff .. .. .	44.00	8.00	8.00	20.57	50.00	10.00
(9) Others .. .. .	81.50	28.84	28.84	73.33	1,94.67	37.75
TOTAL—(1) TO (9) .. .. .	7,20.00	1,50.00	1,50.00	6,50.50	14,18.00	3,30.74
<i>(xv)</i> Community Development .. .. .						
<i>(xv)</i> Panchayats .. .. .	60.00	25.00	12.00	13.81	5,28.99	1,08.99
TOTAL—(i) TO (xv) .. .. .	1,12,90.00	26,30.00	26,17.00	88,39.01	2,27,94.00	43,26.30

## II. IRRIGATION AND POWER.

*(i)* Irrigation—

## (1) Continuing—

(a) Major (Projectwise) .. .. .	96,75.70	30,48.00	30,48.00	11,67,38.09	1,21,35.11	29,68.00
(b) Medium .. .. .	13,39.30	5,46.00	5,46.00	12,46.02	14,56.71	10,62.00
(2) New .. .. .	..	..	..	..	1,12,94.18	9,00.00
(3) Investigation and Research .. .. .	85.00	30.00	30.00	61.90	3,50.00	70.00
TOTAL .. .. .	1,11,00.00	36,24.00	36,24.00	1,30,46.01	2,52,36.00	50,00.00
(1) (a) Flood Control .. .. .	10,00.00	2,80.00	2,80.00	14,98.26	36,18.00	7,23.00

## ANNEXURE II—contd.

## STATEMENT III

## DRAFT FIFTH FIVE-YEAR PLAN.

## [Programmewise Outlay and Expenditure.

Name of the State—Bihar.

[Rs. in lakhs]

Programme.	Fourth Plan approved outlay.	Approved outlay for 1973-74.	Likely expenditure during 1973-74.	Likely expenditure during Fourth Plan.	Fifth Plan Total outlay.	Annual Plan 1974-75 outlay.
1	2	3	4	5	6	7
<b>(ii) Power—</b>						
(1) Generation .. .. .	63,25.00	22,39.00	22,39.00	63,24.84	1,83,84.00	49,59.60
(2) Transmission and Distribution .. .. .	50,00.00	16,50.00	16,50.00	52,27.88	1,45,16.00	25,00.00
(a) Rural Electrification .. .. .	36,00.00	..	..	19,33.48	50,00.00	9,75.00
(b) Investigations .. .. .	75.00	25.00	25.00	90.47	5,00.00	1,00.00
(c) Miscellaneous .. .. .	..	..	..	..	51,00.00	6,10.00
<b>TOTAL</b> .. .. .	<b>1,50,00.00</b>	<b>39,14.00</b>	<b>39,14.00</b>	<b>1,35,76.67</b>	<b>4,35,00.00</b>	<b>91,44.60</b>
<b>TOTAL—IRRIGATION AND POWER INCLUDING FLOOD CONTROL.</b>	<b>2,71,00.00</b>	<b>78,18.00</b>	<b>78,18.00</b>	<b>2,81,20.94</b>	<b>7,23,54.00</b>	<b>1,48,67.60</b>
<b>III. INDUSTRY AND MINING.</b>						
<b>(i) Large and Medium Industries—</b>						
(1) State Industries Projects .. .. .	1,35.00	0.15	0.15	1,09.42	4.30	..
(2) Industrial Areas .. .. .	1,74.00	70.00	70.00	1,41.04	6,00.00	90.00
(3) Industrial Development Corporation .. .. .	2,55.00	1,20.00	1,20.00	4,35.43	29,95.70	4,49.25
(4) State Finance Corporation .. .. .	1,00.00	..	..	..	1,00.00	15.00
(5) Research Demonstration and Pilot Projects .. .. .	21.00	10.00	10.00	17.19	1,00.00	15.00
(6) Others .. .. .	15.00	9.85	9.85	52.11	1,00.00	15.00
<b>TOTAL—(1) TO (6)</b> .. .. .	<b>7,00.00</b>	<b>2,10.00</b>	<b>2,10.00</b>	<b>7,55.19</b>	<b>39,00.00</b>	<b>5,84.25</b>
<b>(ii) Village and Small Industries—</b>						
(1) Handloom Industry .. .. .	80.00	6.00	6.00	15.68	1,39.70	20.95
(2) Power Looms .. .. .	30.00	4.10	4.10	7.42	60.30	9.04
(3) Small Scale Industries .. .. .	3,85.00	1,12.14	1,12.14	3,50.42	17,89.81	2,68.47
(4) Industrial Estimates .. .. .	96.00	96.00	96.00	1,34.93	6,40.00	96.00
(a) Rural* .. .. .	N. A.	..	..	..	..	..
(b) Semi-urban .. .. .	N.A.	..	..	..	..	..
(c) Urban* .. .. .	N. A.	..	..	..	..	..
(5) Handicrafts .. .. .	41.00	13.50	13.50	28.94	1,50.51	22.50
(6) Sericulture .. .. .	63.00	18.26	18.26	49.65	1,82.68	27.40
(7) Coir Industry .. .. .	..	..	..	..	..	..
(8) Khadi and Village Industries .. .. .	5.00	5.00	5.00	5.54	1,00.00	15.55
(9) Others .. .. .	..	20.00	20.00	53.04	2,00.00	40.00
<b>TOTAL—(1) TO (9)</b> .. .. .	<b>7,00.00</b>	<b>2,75.00</b>	<b>2,75.00</b>	<b>6,45.62</b>	<b>32,63.00</b>	<b>4,49.92</b>

\* Number of scheme for Government built estimates developed site and privately assisted estimates may be indicated in brackets.

## ANNEXURE II—contd.

## STATEMENT III.

## DRAFT FIFTH FIVE-YEAR PLAN.

## Programmewise Outlay and Expenditure.

Name of the State—Bihar.

(Rs. in lakhs.)

Programmes.	Fourth Plan approved outlay.	Approved Outlay for 1973-74.	Likely expenditure 1973-74.	Likely expenditure during Fourth Plan.	Fifth Plan total outlay.	Annual Plan 1974-75 outlay.
1	2	3	4	5	6	7
(iii) Mineral Development— .. .. .	3,52.00	63.00	63.00	2,24.66	7,60.39	1,79.63
TOTAL—(i) TO (iii) .. .. .	17,52.00	5,48.00	5,48.00	16,25.47	79,23.39	12,13.80
<b>IV. (1) ROADS—</b>						
Spillover .. .. .	16,72.00	7,07.50	1,15.00	17,61.44	70,00.00	15,53.81
New .. .. .	17,51.00	92.50	6,85.00	14,00.00	68,00.00	1,58.40
TOTAL OF ROADS .. .. .	34,23.00	8,00.00	8,00.00	31,61.44	1,38,00.00	27,12.21
(a) Rural Roads .. .. .	3,20.00	60.00	60.00	1,83.13	68,00.00	11,00.00
(b) Others .. .. .	31,03.00	7,40.00	7,40.00	29,78.31	70,00.00	16,12.21
(2) Road Transport .. .. .	3,53.00	98.00	98.00	3,53.00	6,00.00	90.00
(3) Ports and Harbours .. .. .	8.00	4.00	..	..	15.00	4.00
(4) Tourism .. .. .	20.00	5.00	5.00	23.74	30.00	7.50
TOTAL—(1) TO (4) .. .. .	38,04.00	9,07.00	9,03.00	35,38.18	1,44,45.00	28,13.71
<b>V. EDUCATION.</b>						
<b>(i) General Education—</b>						
(1) Elementary Education .. .. .	25,29.53	7,10.11	7,10.11	21,16.58	91,98.26	10,98.51
(2) Secondary Education .. .. .	3,88.70	21.78	21.78	1,14.01	23,74.00	2,58.10
(3) University Education .. .. .	5,07.48	75.81	75.81	3,56.66	9,44.00	1,52.34
<b>(4) Teachers Training—</b>						
(a) Elementary .. .. .	54.47	3.80	3.80	10.92	1,25.00	24.00
(b) Secondary .. .. .	33.11	3.84	3.84	12.75	1,26.00	23.20
(5) Social Education .. .. .	10.00	2.00	2.00	7.85	1,60.00	20.66
(6) Other Educational Programmes .. .. .	2,72.46	30.66	30.66	1,78.13	4,75.61	90.20
(7) Cultural Programmes .. .. .	42.25	2.00	2.00	17.95	69.13	13.20
TOTAL—(1) TO (7) .. .. .	38,38.00	8,50.00	8,50.00	28,14.85	1,34,72.00	16,80.21
(ii) Technical Education .. .. .	3,10.00	50.00	50.00	1,19.50	4,00.50	88.25
TOTAL—(i) AND (ii) .. .. .	41,48.00	9,00.00	9,00.00	29,34.35	1,38,72.50	17,68.46



## ANNEXURE II—contd.

## STATEMENT III.

## DRAFT FIFTH FIVE-YEAR PLAN.

## Programmewise Outlay and Expenditure.

Name of the State—Bihar.

(Rs. in Lakhs.)

Programme.	Fourth Plan approved outlay.	Approved outlay for 1973-74.	Likely expenditure during 1973-74.	Likely expenditure during Fourth Plan.	Fifth Plan Total outlay.	Annual Plan 1974-75 outlay.
1	2	3	4	5	6	7
<b>VI. HEALTH.</b>						
(1) Medical Education .. ..	3,74.00	83.20	83.20	2,40.00	11,52.60	1,163.00
(2) Training Programmes .. ..	1,07.00	3.50	3.50	54.00	1,79.32	177.93
(3) Hospitals and Dispensaries .. ..	5,87.60	1,16.15	1,16.15	2,80.60	6,55.52	655.00
(4) Primary Health Centres .. ..	3,19.40	98.00	98.00	1,12.00	40,44.00	4,066.00
(5) Indigenous system of medicine .. ..	34.00	6.40	6.40	12.00	1,00.00	10.00
(6) Other Programmes .. ..	1,06.00	22.75	22.75	29.40	3,12.56	311.25
(7) Nutrition .. ..	..	..	..	..	23,64.00	4,00.00
TOTAL—(1) TO (7) .. ..	15,28.00	3,20.00	3,20.00	7,28.00	88,08.00	10,46.18
<b>VII. WATER SUPPLY AND SANITATION.</b>						
(1) Urban— .. ..	13,84.00	2,20.00	2,20.00	9,11.36	14,28.00	2,60.00
(a) Water Supply .. ..	9,89.00	1,70.00	1,70.00	7,15.00	1,12.00	2,00.00
(b) Sewerage and Drainage .. ..	3,95.00	50.00	50.00	1,96.36	3,08.00	60.00
(2) Rural .. ..	3,66.00	1,50.00	1,50.00	3,68.00	29,00.00	5,52.00
(a) Piped Water Supply .. ..	75.00	20.00	20.00	77.00	17,81.00	3,00.00
(b) Wells and Hand pumps. .. ..	2,91.00	1,30.00	1,30.00	2,91.00	11,19.00	2,25.00
TOTAL—(1) AND (2) .. ..	17,50.00	3,70.00	3,70.00	12,79.36	43,28.00	7,85.00
<b>VIII. HOUSING.</b>						
(1) Subsidised Industrial Housing .. ..	2,30.00	1,18.27	1,18.27	1,92.15	14,00.00	1,12.00
(2) Low Income Group Housing.. ..	1,80.00	56.00	56.00	8,57.24	1,50.00	52.00
(3) Village Housing Projects .. ..	50.00	18.00	18.00	27.36	20.00	1.60
(4) Plantation Labour Housing .. ..	..	..	..	..	..	..
(5) Slum Clearance .. ..	20.00	5.00	5.00	5.25	4,25.00	34.00
(6) Others.. ..	2,70.00	60.73	60.73	2,20.02	6,05.00	1,74.40
TOTAL—(1) TO (6) .. ..	7,50.00	2,58.00	2,58.00	6,02.00	31,00.00	3,74.00
<b>IX. TOWN PLANNING AND URBAN DEVELOPMENT.</b>						
(1) Town Planning .. ..	90.00	19.00	19.00	82.50	7,25.00	1,45.00
(2) Urban Development .. ..						
TOTAL—(1) AND (2) .. ..	90.00	19.00	19.00	82.50	7,25.00	1,45.00

## ANNEXURE II—contd.

## STATEMENT III.

## DRAFT FIFTH FIVE-YEAR PLAN.

## Programmewise Outlay and Expenditure.

Name of the State—Bihar.

(Rs. in Lakhs.)

Programme.	Fourth Plan approved outlay.	Approved outlay for 1973-74.	Likely expenditure 1973-74.	Likely expenditure during Fourth Plan.	Fifth Plan Total outlay.	Annual Plan 1974-75 outlay.
1	2	3	4	5	6	7
<b>X. WELFARE OF BACKWARD CLASSES.</b>						
(1) Scheduled Tribes—						
(a) Education .. .. .	2,78.60	90.20	90.20	2,60.46	5,31.50	84.90
(b) Economic Uplift .. .. .	35.80	40.00	40.00	74.40	60.00	20.65
(c) Housing, Health and other schemes .. .. .	10.10	3.80	3.80	12.86	98.25	6.25
(2) Scheduled Castes—						
(a) Education .. .. .	1,89.65	58.35	58.35	1,79.96	3,79.05	67.20
(b) Economic Uplift .. .. .	21.90	12.10	12.10	27.75	50.00	9.00
(c) Housing, Health and other schemes .. .. .	20.95	1.55	1.55	10.41	31.20	6.20
(3) Other Backward Classes—						
(a) Education .. .. .	} 33.00	8.00	8.00	38.86	53.00	9.60
(b) Economic Uplift .. .. .						
(c) Housing, Health and other schemes .. .. .						
TOTAL—(1) TO (3) .. .. .	5,90.00	2,14.00	2,14.00	6,04.64	12,03.00	2,03.80
<b>XI. SOCIAL WELFARE.</b>						
(1) Child Welfare .. .. .	2.88	0.13	0.13	0.53	15.00	3.00
(2) Women Welfare .. .. .	1.64	0.10	0.10	0.38	10.00	3.00
(3) Social Defence .. .. .	8.25	1.75	1.75	3.25	30.00	3.00
(4) Welfare of physically and mentally handicapped .. .. .	6.55	2.60	2.60	5.41	40.11	5.00
(5) Grant-in-aid to voluntary Organisation .. .. .	1.68	0.12	0.12	0.46	5.00	1.00
(6) Training and Administration .. .. .	..	..	..	..	..	..
(7) Others.. .. .	..	0.30	0.30	0.30	12.00	3.00
TOTAL—(1) TO (7) .. .. .	21.00	5.00	5.00	10.33	1,12.11	18.00
XII. CRAFTSMEN TRAINING AND LABOUR WELFARE .. .. .	2,50.00	45.00	45.00	1,52.63	27.00	42.46
XIII. INFORMATION AND PUBLICITY .. .. .	25.00	17.00	17.00	28.39	30.00	40.02
XIV. EVALUATION .. .. .	5.00	4.00	4.00	7.09	10.00	2.00
XV. STATISTICS .. .. .	20.00	4.00	4.00	7.62	2,00.00	29.56
XVI. PUBLIC CO-OPERATION .. .. .	5.00	..	..	..	..	..
XVII. HILL AREAS (CHHOTANAGPUR DIVISION AND SANTAL PARGANAS DISTRICT.) .. .. .	1,28,99.72	N.A.	N.A.	1,27,01.65	3,90,04.70	N.A.
XVIII. PLANNING MACHINERY .. .. .	..	..	..	..	1,40.00	29.35
XIX. ADMINISTRATIVE BUILDING .. .. .	..	..	..	..	16,85.00	3,30.00
GRAND TOTAL—(EXCLUDING XVII WHICH IS INCLUDED IN THE FIGURES FOR VARIOUS SECTORS.)	5,31,28.00	1,40,59.00	1,40,42.00	4,85,60.61	15,20,00.00	2,79,99.24



## ANNEXURE II—contd.

## STATEMENT IV

## DRAFT FIFTH FIVE-YEAR PLAN

## Physical Programmes—Targets and Achievements.

Item.	Unit.	1968-69 Level.	Fourth Plan.		Level expected during 1973-74.	Fifth Plan Targets		
			Target.	Likely Achieve- ment.		Total.	1974-75.	
1	2	3	4	5	6	7	8	
<i>(f)</i> Bhands, Tanks-Bandis—								
<i>(i)</i> Net ..	Thousand Hectares.	188	N.A.	N.A.	200	200	200	
<i>(ii)</i> Gross ..	Ditto	197	N.A.	N.A.	200	200	200	
<i>(g)</i> Others—								
<i>(i)</i> Net ..	Ditto	735	N.A.	N.A.	800	900	825	
<i>(ii)</i> Gross ..	Ditto	733	N.A.	N.A.	800	900	825	
Total—Area Irrigated—								
<i>(i)</i> Net ..	Ditto	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
<i>(ii)</i> Gross ..	Ditto	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
6. Area under Minor Irrigation—								
<i>(a)</i> New Area (Potential added) ..	Ditto	1,427 +107	821 +170	382 +160	1,809 +160	590 +35	75 +7	
<i>(b)</i> Depreciation on assisting works ..	Ditto	..	..	..	1,180*	Up to 1972-73		
<i>(c)</i> Total Potential available ..	Ditto	..	..	..	629	..	..	
<i>(d)</i> Utilisation—								
<i>(i)</i> Net ..	Ditto	} Not available.						
<i>(ii)</i> Gross ..	Ditto							
7. Area under Major and Medium Irrigation—								
<i>(a)</i> Potential ..	Ditto	1,295	1,923	2,008	2,008	3,536	3,821	
<i>(b)</i> Utilisation—								
<i>(i)</i> Net ..	Ditto	1,079	1,486	1,460	1,460	3,139	3,409	
<i>(ii)</i> Gross ..	Ditto	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
8. Foodgrains—								
<i>(i)</i> Khariff—								
<i>(a)</i> Total area ..	Ditto	6,289	6,400	6,400	6,400	7,200	6,525	
<i>(b)</i> Irrigated area ..	Ditto	1,983	2,428	2,428	2,428	2,900	2,540	
<i>(c)</i> Production ..	Thousand Tonnes.	5,516	6,600	6,600	6,600	7,500	6,400	

ANNEXURE II—*contd.*

## STATEMENT IV

## DRAFT FIFTH FIVE-YEAR PLAN

## Physical Programmes—Targets and Achievements.

Item.	Unit.	1968-69 Level.	Fourth Plan.		Level expected during 1973-74.	Fifth Plan Targets	
			Target.	Likely Achieve- ment.		Total.	1974-75.
1	2	3	4	5	6	7	8
(ii) Rabi—							
(a) Total area .. ..	Thousand Hectares	1,101	1,838	1,838	2,000	3,000	2,200
(b) Irrigated area .. ..	Ditto	425	963	963	963	1,300	1,000
(c) Production .. ..	Ditto	1,259	3,000	3,000	3,000	5,500	3,400
(iii) Total (Includes other crops also)—							
(a) Total area .. ..	Ditto	9,749	10,924	10,500	10,500	13,000	10,725
(b) Irrigated area .. ..	Ditto	2,732	4,498	4,498	4,498	4,300	3,620
(c) Production .. ..	Thousand Tonnes.	8,869	11,400	10,000	10,000	15,000	11,000
9. Area under Commercial crops (including tea and Tobacco—cropwise)—							
(i) Sugarcane—							
(a) Total area .. ..	'000 Hectares	152	172	170	170	170	170
(b) Irrigated area .. ..	Ditto	0.40	0.81	0.80	0.80	0.80	0.80
(c) Production .. ..	'000 Tonnes	5,914	7,500	6,500	6,500	8,500	7,300
(ii) Tobacco—							
(a) Total area .. ..	'000 Hectares	14	17	14	14	16	14
(b) Irrigated area .. ..	Ditto	2	N.A.	N.A.	N.A.	N.A.	N.A.
(c) Production .. ..	'000 Tonnes	0.14	0.24	0.23	0.23	0.32	0.23
(iii) Oilseeds—							
(a) Total area .. ..	'000 Hectares	182	247	240	240	300	255
(b) Irrigated area .. ..	Ditto	11	N.A.	N.A.	N.A.	80	50
(c) Production .. ..	'000 Tonnes	73	170	110	110	150	115
(iv) Jute and Mesta—							
(a) Total area .. ..	'000 Hectares	13	202	100	100	190	190
(b) Irrigated area .. ..	Ditto	0.40	111	60	60	80	80
(c) Production .. ..	'000 Tonnes	480	1,100	825	825	1,175	875

## ANNEXURE II

## STATEMENT IV

## DRAFT FIFTH FIVE-YEAR PLAN

## Physical Programmes—Targets and Achievements.

Item.	Unit.	1968-69 Level.	Fourth Plan.		Level expected during 1973-74.	Fifth Plan Targets.	
			Target.	Likely Achieve- ment.		Total.	1974-75.
1	2	3	4	5	6	7	8
10. Area under H. Y. V.—							
(a) Wheat .. ..	'000 hectares	301	1,416	1,650	1,650	2,500	1,650
(b) Paddy .. ..	Ditto	289	560	1,000	1,000	1,500	1,100
(c) Maize .. ..	Ditto	40	120	250	250	450	250
(d) Others .. ..	Ditto	4,775	5,261	N.A.	4,815	5,940	5,045
11. Area under Improved Varieties Crop/Area—							
(i)							
(ii)	etc.						
12. High yielding varieties seed distributed—							
(a) Paddy .. ..	'000 tonnes	..	80	138	138	210	138
(b) Wheat .. ..	Ditto	..	21	25	..	37	27
(c) Maize .. ..	Ditto	8	3	5	..	9	5
13. Improved varieties seed distributed—							
(a) Paddy .. ..	Ditto	..	..	..	90	101	92
(b) Wheat .. ..	Ditto	N.A.	N.A.	N.A.	19	15	18
(c) Maize .. ..	Ditto	..	..	..	13	16	14
14. Fertilizers consumed—							
(i) Nitrogenous .. ..	Ditto	49	200	200	200	473	260
(ii) Phosphatic .. ..	Ditto	14	85	85	85	340	134
(iii) Potassic .. ..	Ditto	4	40	40	40	117	64
15. Area under Green Manure .. ..	'000 hectares	445	500	450	450	600	450
16. Urban compost distributed.. ..	'000 tonnes	97	200	120	120	200	130
17. Area covered by plant protection—							
(i) Food crops .. ..	'000 hectares	1,174	2,907	2,907	2,907	3,500	3,000
(ii) Commercial crops .. ..	Ditto	243	607	607	607	1,000	700
(iii) Horticulture .. ..	Ditto	202	486	486	486	500	500
Total .. ..	Ditto	1,619	4,000	4,000	4,000	5,000	4,200

## ANNEXURE II

## STATEMENT IV

## DRAFT FIFTH FIVE-YEAR PLAN

## Physical Programmes—Targets and Achievements.

Item.	Unit.	1968-69 Level.	Fourth Plan.		Level expected during 1973-74.	Fifth Plan Targets.	
			Target.	Likely Achieve- ment.		Total.	1974-75.
1	2	3	4	5	6	7	8
18. Soil conservation on agricultural lands ..	'000 hectares	15.24 +98 small dams.	68.40 +550 small dams.	72.14 +950 small dams.	14.50 +150 small dams.	143.00 +990 small dams.	114.3 +100 small dams.
19. Soil conservation in catchment area of River Valley Projects (a)	Ditto	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
20. Area consolidated ..	Ditto	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
21. No. of Regulated Markets ..	Numbers	60	150	105	105	200	120
22. Storage capacity available (b)—							
(i) For Fertilizers ..	Ditto	..	..	..	..	..	..
(ii) For foodgrains ..	..	..	..	..	..	..	..
(iii) For others ..	..	..	..	..	..	..	..
Total ..	Ditto	..	..	..	..	..	..
23. Agricultural implements distributed through Agro-Industries Corporation—							
(i) Tractors ..	Numbers	..	..	8,000	8,000	10,000	8,200
(ii) Power Tillers ..	..	..	..	450	450	5,000	1,000
(iii) Pump sets ..	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
24. Animal Husbandry—							
(i) Veterinary hospitals/dispensaries	Numbers	632	20	120	752	100 to be continued, 100 new	100 to be continued, 20 new
(ii) Intensive Cattle Development Blocks	Ditto	2	1	1	3	5	1
(iii) Artificial Insemination Centres ..	Ditto	107	N.A.	N.A.	107	N.A.	N.A.
(iv) Stockmen Centres ..	Ditto	200	50	50	250	250	50
(v) Area under fodder crops ..	Ditto	13,063	11,000	13,550	13,550	15,000	12,000
25. Key-Village Blocks—							
(a) Established ..	Ditto	47	..	..	47	..	..
(b) Expanded ..	Ditto	Out of 47 K.V. Blocks 16 are ex- panded K.V. Blocks.			16 expanded K.V. Blocks.		

(a) Concern Centrally programmes.

(b) Show under Co-operation sector indicating marketing and rural godowns along with figures on fertilizers retailed by Co-operatives.

## ANNEXURE II

## STATEMENT IV

## DRAFT FIFTH FIVE-YEAR PLAN

## Physical Programmes—Targets and Achievements.

Item.	Unit.	1968-69 Level	Fourth Plan.		Level expected during 1973-74.	Fifth Plan Targets.	
			Target.	Likely Achieve- ment.		Total.	1974-75.
1	2	3	4	5	6	7	8
26. Cattle Breeding Farms established ..	Number	7	..	..	7*	..	..
27. Seed Breeding Farms established ..	Ditto	1	..	..	1	..	..
28. Sheep and Wool Extension Centres ..	Ditto	20	..	..	20	..	..
29. Sheep Shearing, Grading and Marketing	Ditto	4	..	..	4	..	..
30. Production of Animal Products†—							
(a) Milk/Milk Products .. ..	Tonnes per day	4,250	4,500	4,350	4,500	100	4,600
(b) Meat .. ..	Ditto	39,281	53,996	60,498	60,498	66,943	61,797
(c) Wool .. ..	Lakh lbs.	16.39	17.54	18.16	18.16	18.16	18.16
31. No. of Government Poultry Farms esta- blished.	Numbers	15	..	..	15	..	..
32. No. of Poultry Co-operatives ..	Ditto	..	100	17‡	..	..	..
33. No. of Poultry Farmers trained—							
(i) Short term course .. ..	Ditto	1,702	5,000	4,513	6,215	..	..
(ii) Long term course .. ..	Ditto	..	..	..	..	..	..
34. Intensive Egg and Poultry Production- cum-Marketing Centres.	Ditto	2	1	3	5	10	3
FISHERIES.							
35. Mechanisation of leasts .. ..	Numbers	..	..	..	..	..	..
36. Trawlers Procured .. ..	Ditto	..	..	..	..	..	..
37. Cold storages for storing fish ..	Ditto	..	..	..	..	..	..
38. Co-operative Marketing .. ..	Quantity	..	..	..	..	..	..
39. Lending and Berthing facilities provided in labourers—							
(a) Major parts .. ..	Numbers	..	..	..	..	..	..
(b) Minor parts .. ..	Ditto	..	..	..	..	..	..
40. Loans advanced to Fishermen's Co-opera- tives.	(Rs. crores)	..	..	..	..	..	..
41. Fingerlings distributed .. ..	Millions	26.60	100.00	60.00	N.A.	100.00	70.00
42. No. of Fish-seed Farms established ..	Numbers (Hectares)	..	80.00	80.00	N.A.	130.00	26.00
43. Fish Production .. ..	'000 Tonnes	48.00	68.00	68.00	N.A.	75.00	69.00
(i) Inland .. ..	..	..	..	..	..	..	..
(ii) Marine .. ..	..	..	..	..	..	..	..
TOTAL .. ..	..	..	..	..	..	..	..

\*One transferred to Agriculture University.

†Production per day.

‡Scheme dropped.



## ANNEXURE II

## STATEMENT IV

## DRAFT FIFTH FIVE-YEAR PLAN

## Physical Programmes—Targets and Achievements

Item	Unit	1968-69 Level.	Fourth Plan		Level expected during 1973-74.	Fifth Plan Targets.		
			Target	Likely Achieve- ment.		Total	1974-75	
1	2	3	4	5	6	7	8	
<b>CO-OPERATION</b>								
<b>(i) Primary Co-operative Societies (Agricultural Credit)—</b>								
Number .. .. .	Nos.	16,500	16,500	16,500	16,500	16,500	16,500	
Membership .. .. .	In Thousand	2,500	4,000	3,200	3,200	6,000	4,400	
Share Capital of Members .. .. .	Rs. Crores	3.86	N.A.	4.95	4.95	12.00	7.92	
Deposits of Members .. .. .	Ditto	2.49	N.A.	2.90	2.90	6.60	4.40	
Coverage of Agricultural families .. .. .	Per cent	32	48	37	37	73	50	
Percentage of Borrowing Members.. .. .	Ditto	31	N.A.	40	40	75	50	
<b>(ii) Agricultural Credit—</b>								
<b>(a) Short and medium term—</b>								
(i) Advance during the year .. .. .	Rs. Million	125	450	230	230	700	305	
(ii) Amount outstanding at the end of the year.	Ditto	181	N.A.	190	190	300	118	
<b>(b) Long term—</b>								
Advance during the year .. .. .	Ditto	23	160	130	130	600	200	
Amount outstanding at the end of the year.	Ditto	53	N.A.	350	350	2,000	450	
<b>(iii) Primary Marketing Societies .. .. .</b>								
Business handled during the year .. .. .	Rs. Crores	..	7.5	7.5	7.5	10.0	8.75	
<b>(iv) Processing Societies—</b>								
(a) Rice Mills .. .. .	Nos.	12	22	17	17	37	21	
(b) Business handled .. .. .	Rs. Lakhs	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
(c) Sugar factories production .. .. .	Nos.	1	1	1	1	3	2	
(d) Cotton ginning and pressing .. .. .	Nos.	..	..	..	..	..	..	
(e) Business handled .. .. .	Rs. Lakhs	..	..	..	..	..	..	
(f) Others .. .. .	Ditto	21	30	29	29	50	37	
<b>(v) Fertilisers retailed—</b>								
(a) Quantity in terms of material .. .. .	Metric tonnes	..	..	..	..	..	..	
(b) Value .. .. .	Rs. Crores	11	60	16	16	50	20	

ANNEXURE II  
STATEMENT IV  
DRAFT FIFTH FIVE-YEAR PLAN  
Physical Programmes—Targets and Achievements

Item	Unit	1968-69 Level.	Fourth Plan		Level expected during 1973-74.	Fifth Plan Targets	
			Target	Likely Achieve- ment.		Total	1974-75
1	2	3	4	5	6	7	8
<i>(vi)</i> Marketing godowns—							
(a) Assisted upto the end of the year	Nos.	278	378	286	286	536	336
(b) Constructed up to the end of the year.	Do.	244	378	286	286	536	336
(c) Capacity up to the end of the year.	Thousand tonnes.	48.8	74.8	60.4	60.4	150.4	78.4
<i>(vii)</i> Rural godowns—							
(a) Assisted .. .. .	Nos.	1,030	1,190	1,102	1,102	1,942	1,270
(b) Constructed .. .. .	Do.	618	1,190	763	763	1,603	931
(c) Capacity .. .. .	Thousand tonnes.	61.8	1.19	76.3	76.3	160.3	93.1
<i>(viii)</i> Distribution of Consumer article in rural areas.	Rs. Crores	5.00	15	7	7	15	9
<i>(ix)</i> Retail sales of Urban Consumer Co-operatives.	Ditto	8.00	N.A.	15	15	25	17
<b>III. POWER</b>							
<i>(i)</i> Installed capacity**	1,000 K.W.	209	785	560	Nil	1,502	565
<i>(ii)</i> Electricity Generated	Ditto	5,27,000	97,24,000	71,80,000	18,20,000	1,82,57,000	19,45,000
<i>(iii)</i> Electricity Sold..	Ditto	13,43,000	1,33,90,000	90,25,000	20,22,000	1,61,43,000	25,72,000
<i>(iv)</i> Rural Electrification—							
(a) Villages electrified should correspond to census villages.	Nos.	6,473	12,500	4,626	2,000	16,665 +6,830 M.N.P.	3,250 +750 M.N.P.
(b) Pumpsets energised by electricity	Do.}	49,528	1,25,000	66,286	25,000	2,40,000	48,000
(c) Tube-wells energised by electricity	Do.}						
<b>IV. TRANSPORT</b>							
1. State Highways—							
(a) Surfaced..	Km.	3,864	115	82	4,002	..	..
(b) Unsurfaced	Do.	296	..	..	232	..	..
(c) Total ..	Do.	4,160	115	82	4,234	..	..

\*\* Figures are progressive

## ANNEXURE II

## STATEMENT IV

## DRAFT FIFTH FIVE-YEAR PLAN

## Physical Programmes—Targets and Achievements

Item	Unit	1968-69 Level.	Fourth Plan		Level expected during 1973-74.	Fifth Plan Targets			
			Target	Likely Achieve- ment.		Total	1974-75		
1	2	3	4	5	6	7	8		
<b>2. Major District Roads—</b>									
(a) Surfaced	.. Km.	6,122	454	328	6,682	} 1,359	272		
(b) Unsurfaced	.. Do.	2,086	..	..	1,592				
(c) Total	.. Do.	8,208	454	328	8,274				
<b>3. Other District Roads—</b>									
(a) Surfaced..	.. Do.	310	1,740	1,250	2,445	136	25		
(b) Unsurfaced	.. Do.	485	..	..	334	..	..		
(c) Total	.. Do.	795	1,740	1,250	2,779	..	..		
<b>4. Village Roads—</b>									
(a) Surfaced..	.. Do.	N.A.	N.A.	N.A.	N.A.	10,000	..		
(b) Unsurfaced	.. Do.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		
(c) Total	.. Do.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		
<b>5. Total Roads—</b>									
(a) Surfaced..	.. Do.	10,296	2,309	1,660	13,129	1,495	297		
(b) Unsurfaced	.. Do.	2,867	..	..	2,158	..	..		
(c) Total	.. Do.	13,163	2,309	1,660	15,287	1,495	297		
6. Village not connected by road	.. Nos.	..	..	..	62,580	55,817	N.A.		
<b>7. Vehicles owned by State Transport under- taking/Corporation—</b>									
(a) Trucks	.. Do.	..	..	..	..	..	..		
(b) Buses	.. Do.	61	607	607	242	750	110		
(c) Taxis	.. Do.	..	..	..	..	..	..		
(d) Others (New Engg.)	.. Do.	96	294	294	83	269	39		
<b>V. GENERAL EDUCATION ENROLMENT.</b>									
<b>(i) Classes IV—as percentage of population in age-group 6—11—</b>									
(a) Boys	.. No. in per- centage.	30.10 (82.8)	6.98	5.46	35.56 (88.10)	42.32 (100.0)	37.10 (91.1)		
(b) Girls	.. Ditto	9.94 (29.0)	8.05	3.06	13.00 (34.2)	22.00 (55.0)	14.60 (38.3)		
(c) Total	.. Ditto	40.04 (55.9)	15.02	8.52	48.56 (62.2)	64.32 (77.7)	51.70 (64.7)		

## ANNEXXURE II

## STATEMENT IV

## DRAFT FIFTH FIVE-YEAR PLAN

## Physical Programmes—Targets and Achievements.

Item.	Unit.	1968-69 Level.	Fourth Plan.		Level expected during 1973-74.	Fifth Plan Target	
			Target.	Likely Achieve- ment.		Total	1974-75
1	2	3	4	5	6	7	8
<b>(ii) Classes VI-VIII as percentage of population in age-group 11-14—</b>							
(a) Boys .. .. .	No. in lakh percentage	6.70 (32.8)	3.00	2.51	9.21 (40.7)	14.40 (60.0)	10.21 (44.6)
(b) Girls .. .. .	Ditto	1.21 (6.7)	1.13	0.49	1.70 (7.9)	4.46 (20.0)	10.21 (44.6)
(c) Total .. .. .	Ditto	7.91 (19.7)	4.13	3.00	10.91 (24.3)	18.86 (40.0)	12.50 (27.6)
<b>(iii) Classes IX-XI as percentage of population in age-group 14 to 17—</b>							
(a) Boys .. .. .	No. in lakh percentage	4.68 (24.9)	2.57	1.57	6.25 (33.0)	8.75 (39.9)	6.62 (32.7)
(b) Girls .. .. .	Ditto	0.44 (2.4)	0.38	0.31	0.75 (4.0)	2.25 (10.7)	0.96 (4.0)
(c) Total .. .. .	Ditto	5.12 (13.8)	2.95	1.88	7.90 (18.6)	11.00 (25.6)	7.58 (19.10)
<b>(iv) Output of matriculates Higher Secondary per 10,000 of population—</b>							
(a) Boys .. .. .	Nos.	534	..	N.A.	N.A.	..	..
(b) Girls .. .. .	Do.	72	..	N.A.	N.A.	N.A.	..
(c) Total .. .. .	Do.	610	..	N.A.	..	..	..
<b>(v) University/Collegiate enrolment—</b>							
Total (Arts, Science and Commerce)	'000 Nos.	175	75	85	260	345	275
<b>Teachers Percentage trained in—</b>							
(i) Elementary Schools	Percentage	82.9	15.0	6.0	88.8	100.0	90.0
(ii) Secondary Schools	Ditto	55.3	40.0	40.5	85.8	100.0	96.5
<b>Technical Education—</b>							
<b>(i) Engineering Colleges—</b>							
(a) Number of Institutions	Nos.	6	N.A.	N.A.	6	6	N.A.
(b) Sanctioned annual admission capacity.	Do.	1,376	N.A.	N.A.	953	1,500	N.A.
(c) Outturn .. .. .	Do.	1,100	N.A.	N.A.	1,100	1,000	N.A.
<b>(ii) Polytechnics—</b>							
(a) No. of institutions .. .. .	Nos.	15	N.A.	N.A.	15	N.A.	N.A.
(b) Sanctioned annual admission capacity.	Do.	1,875	N.A.	N.A.	1,175	2,000	N.A.
(c) Outturn .. .. .	Do.	1,605	N.A.	N.A.	700	1,500	N.A.

## ANNEXURE II

## STATEMENT IV

## DRAFT FIFTH FIVE-YEAR PLAN

## Physical Programmes—Targets and Achievements.

Item.	Unit.	1968-69 Level.	Fourth Plan.		Level expected during 1973-74.	Fifth Plan Targets	
			Target.	Likely Achieve- ment.		Total	1974-75
1	2	3	4	5	6	7	8
<b>VI. HEALTH.</b>							
(i) Hospitals and Dispensaries—							
(a) Urban .. .. .	Nos.	82	82	82	82	106	88
(b) Rural .. .. .	Do.	610	610	610	610	730	635
(ii) Beds—							
(a) Urban Hospitals and Dispensaries	Nos.	9,513	14,864	11,590	11,590	12,988	11,869
(b) Rural Hospitals and Dispensaries including upgraded P.H.C.S.	Do.	3,201	3,603	3,603	3,603	8,013	4,485
(iii) Primary Health Centres—							
(a) Main Centres .. .. .	Nos.	587	587	587	587	440	440
(b) Sub-Centres .. .. .	Do.	1,761	1,761	1,761	1,761	5,072	2,423
(iv) Training of Nurses—							
(a) Institutes .. .. .	Nos.	3	4	4	4	8	5
(b) Annual intake .. .. .	Do.	200	240	240	240	1,200	290
(c) Annual outturn .. .. .	Do.	200	240	240	240	1,200	290
(v) Training of Auxiliary Nurse-mid-wives—							
(a) Institutes .. .. .	Nos.	17	31	31	31	31	31
(b) Annual intake .. .. .	Do.	970	1,660	1,660	1,660	8,300	1,660
(c) Annual outturn .. .. .	Do.	970	1,660	1,660	1,660	8,300	1,660
(vi) Control of diseases—							
(a) T.B. Clinics .. .. .	Nos.	17	17	17	17	Not fixed	Not fixed
(b) Leprosy control units .. .. .	Do.	10	10	10	10	Do.	Do.
(c) V.D. clinics .. .. .	Do.	7	7	7	7	Do.	Do.
(d) Filariasis units .. .. .	Do.	17	17	17	17	Do.	Do.
(e) S.E.T. Centres .. .. .	Do.	15	15	15	15	Do.	Do.
(vii) Maternity and Child Welfare Centres ..	Nos.	63	63	63	63	Do.	Do.
(viii) Medical Education*—							
(a) Medical Colleges .. .. .	Nos.	4	5	5	5	5	5
(b) Annual admissions .. .. .	Do.	575	610	625	625	3,125	675
(c) Annual outturn .. .. .	Do.	400	610	610	610	3,050	610

\*There are 4 Private Medical Colleges in the State affiliated to different Universities. Their annual intake is 550 and the expected outturn from 1978-79 is 400.

## ANNEXURE II

## STATEMENT IV

## DRAFT FIFTH FIVE-YEAR PLAN

## Physical Programmes—Targets and Achievements.

Item.	Unit.	1968-69 Level.	Fourth Plan.		Level expected during 1973-74.	Fifth Plan Targets	
			Target.	Likely Achieve- ment.		Total	1974-75
1	2	3	4	5	6	7	8
<b>VII. WATER SUPPLY AND SANIATION.</b>							
<b>(a) Urban—</b>							
Corporation Towns—							
(i) Augmentation of protected Water-Supply.	Million gallons.	30.80	199.80	N.A.	N.A.	N.A.	N.A.
(ii) Population covered..	.. Millions	5.82	6.13	N.A.	N.A.	N.A.	N.A.
Other Towns (Piped Water-Supply)—							
(i) Towns covered ..	.. Nos.	81	93	93	114	113	24
(ii) Population covered ..	.. Millions	1.93	2.07	2.07	4.00	1.25	0.40
<b>(b) Rural—</b>							
Piped Water Supply—							
(i) Village covered ..	.. Nos.	764	425	425	1,189	279	100
(ii) Population covered ..	.. Millions	0.7	0.5	0.5	1.02	1.93	0.40
Simple Wells—							
(i) Village covered ..	.. Nos.	593	10,633	10,633	11,226	26,508	5,000
(ii) Population covered ..	.. Millions	0.149	2.569	2.569	2.718	13.18	1.25
Urban Sewerage—							
(i) Augmentation/Provision of Sewerage Schemes.	Nos.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
(ii) Population covered ..	.. Millions	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
<b>VIII. HOUSING.</b>							
(i) Industrial .. ..	.. No. of houses	N.A.	2,750	2,276	1,200	7,700	616
(ii) Slum clearance ..	.. Ditto	N.A.	..	166	50	6,900	552
(iii) Low Income Group Housing	.. Ditto	N.A.	1,440	1,408	448	5,500	440
<b>(iv) Village Housing—</b>							
(a) No. of villages ..	..	N.A.	N.A.	90	90	65	5
(b) No. of houses completed	..	N.A.	742	297	297	N.A.	N.A.
(v) Land acquisition and development	.. Area development.	N.A.	496	982	647	936	300
(vi) Plantation labour housing ..	.. Nos.	..	..	..	..	..	..

## ANNEXURE II

## STATEMENT IV

## DRAFT FIFTH FIVE-YEAR PLAN

## Physical Programmes—Targets and Achievements.

Item.	Unit.	1968-69 Level.	Fourth Plan.		Level expected during 1973-74.	Fifth Plan Targets		
			Target.	Likely Achieve- ment.		Total	1974-75	
1	2	3	4	5	6	7	8	
<b>IX. TRAINING OF CRAFTSMEN INSTITUTIONS.</b>								
(a) Existing	.. .. .	Nos.						
			29	1	1	30	N.A.	N..A
(b) New	.. .. .							
Intake	} Existing		8,700	43,500	N.A.	N.A.	N.A.	N.A.
Outturn				6,800	34,000	N.A.	N.A.	N.A.
Intake	} New		840	10,112	8,500	2,000	N.A.	N.A.
Outturn				650	8,000	6,300	1,400	N.A.
<b>X. BACKWARD CLASSES.</b>								
(i) T.D. Blocks	.. .. .	Nos.	63	..	..	..	..	..
(ii) Training Staff by categories	.. .. .	Do.	100	Not fixed	500	100	500	100
(iii) Post-matric scholarship	.. .. .	Do.	..	..	..	..	..	..
<b>(a) General courses—</b>								
(i) Scheduled Tribes	.. .. .	Nos.	6,709	Not fixed	53,000	12,700	Not fixed	14,000
(ii) Scheduled Castes	.. .. .	Do.	5,199	Not fixed	51,000	12,100	Not fixed	13,500
<b>(b) Technical and Professional Courses—</b>								
(i) Scheduled Tribes	.. .. .	Nos.	365	Not fixed	2,300	600	Not fixed	700
(ii) Scheduled Castes	.. .. .	Do.	110	Not fixed	700	200	Not fixed	300
(iii) No. of girls Hostels	.. .. .	Do.	..	Not fixed	7	2	..	..
<b>XI. VILLAGE AND SMALL INDUSTRIES.</b>								
Industrial Estates	.. .. .	Nos.	14	..	..	13	10	7
<b>XII. INFORMATION AND PUBLICITY.</b>								
(i) Number of Districts having publicity Offices/Information Offices	.. .. .	Nos.	17	..	29	29	..	..
(ii) No. of Districts without Publicity Offices.	.. .. .	Do.	..	..	..	..	..	..
(iii) Number of Field Publicity Units	.. .. .	Do.	45	9	18	63	10	1
(iv) Number of Taluks/Subdivisions covered by Field Publicity Offices.	.. .. .	Do.	23	32	41	58	10	1
(v) Number of Taluks/Subdivisions not covered by Field Publicity Offices.	.. .. .	Do.	18	9	18	18	17	17

## PART II



## CHAPTER I

### AGRICULTURAL EDUCATION AND RESEARCH.

The Rajendra Agricultural University, the first Agricultural University of the State, was established in November, 1970. It started functioning from February, 1971. The three Agriculture Colleges, two Veterinary Colleges, five Agricultural Research Institutes, one Livestock Research Station and some Research Centres have been transferred from the State Government to the University.

2. The total outlay during the Fourth Plan was of the order of Rs. 2,06 lakhs. The anticipated expenditure during the Fourth Plan period is Rs. 1,37 lakh. The shortfall in expenditure was mainly due to inadequate organisational structure. It is hoped that with the establishment of the Agricultural University, agricultural education and education programmes will be intensified and broad-based.

3. *Fifth Plan programmes and outlay.*—The main programmes envisaged during the Fifth Five-Year Plan area —

- (a) Animal Production Research,
- (b) Development of Veterinary Clinical Complex, and
- (c) Strengthening of Regional Agricultural Research Units.

Animal Production Research will aim at screening the herd of cows and she-buffaloes, segregating the uneconomical and retaining only a few of those conforming to the minimum norms. Fresh animals of these breeds will be introduced to form the foundation herd which will be cross-bred with well-defined exotic breeds to step up milk production. Under this programme, the Animal Production Research Station, Pusa-Dhola will be strengthened and the Instructional Livestock farms and Agricultural Colleges will be developed. The programme will also aim at the improvement of sheep and goat, poultry and pigs. A lot of demand is made on Patna Veterinary College to provide clinical facilities in Veterinary medicine. It is proposed to locate four main sections in this college hospital to form a clinical complex, namely, veterinary surgery, obstetrics and gynaecology, veterinary medicine and clinical pathology.

It is proposed to strengthen the Regional Agricultural Research unit by strengthening the Entomological, Pathological, rice and Horticultural Research, Chemistry and Soil Section, Miscellaneous Crop Research and Engineering Workshop. Equipments for strengthening the Research Station are also proposed.

The total outlay envisaged for agricultural education and research is Rs. 3,00 lakhs, the programmewise break-down of which is as follows :—

(Rs. in lakhs)

Serial no.	Programme.	Proposed outlay.
1	Central University Administration	1,64.00
2	Animal Production Research	31.50
3	Veterinary Clinical Complex	11.00

		<i>(Rs. in lakhs)</i>
Serial no.	Programme.	Proposed outlay.
4	Purchase of equipments for development of Agricultural Research Units.	50.00
5	Scholarships and fellowships to students .. .. .	31.42
6	Travel grants .. .. .	10.00
7	Link road connecting Veterinary and Agricultural Colleges in Ranchi campus.	3.00
	Total .. .. .	<hr/> 3,00.92
		<hr/> or say 3,00 lakhs. <hr/>

This outlay is proposed to be given to the University as grants-in-aid.

## CHAPTER II

### AGRICULTURAL PRODUCTION

*The Fourth Plan experience.*—The target of foodgrains production during the Fourth Five-Year Plan was 114 lakh M. tonnes. According to the present indication the Fourth Five-Year Plan will end with a base level foodgrains production of the order of 100 lakh M.T. There will be, therefore, a gap of 14 lakhs M.T. The shortfall in the foodgrains production is due to severe droughts, floods, bacterial infestation, lack of fertilisers in adequate quantities, non-realisation of the targeted irrigation potential and under utilisation of the irrigation potential.

In financial terms, although the proposed outlay of agricultural production during the Fourth Five-Year Plan was of the order of Rs. 1.123 lakh, the approved outlay was Rs. 945.82 lakhs only. The anticipated expenditure during the Fourth Plan is Rs. 519.87 lakhs.

2. *Objectives and strategy for the Fifth Five-Year Plan.*—The economy of this State is predominantly agricultural. About 90 per cent of the people live in the rural areas. This State is economically a backward State and the per capita income is one of the lowest in the country. About 74 per cent of the population is below the poverty line. If a direct attack on poverty is to be made, agricultural production has to be stepped up substantially. It has, therefore, been proposed to increase the foodgrains production by 50 per cent by the end of the Fifth Five-Year Plan; that is to say, it is proposed to increase foodgrains production to 150 lakh M.T. by the end of the Fifth Plan. A high rate of growth of foodgrains production has been planned with a view to make a substantial impact on the present foodgrains production situation. With this end in view, substantial provisions have been made in productive core sectors like irrigation and power, agricultural credit, marketing and warehousing. Necessary inter-sectoral support has been provided for, to the extent possible. Integrated Area Development Programmes, dry farming, Small and Marginal Farmers programme, contingency plan etc., have been dovetailed in the agricultural production programme. The core of the Foodgrains production programme consists of greater emphasis on High Yielding Varieties and Multiple Cropping programmes. Substantial provisions have also been made in soil and water management, land levelling and land shaping and construction of water-courses. A Seed Corporation is being set up, along with Seed Certification Programme to provide quality seeds in adequate quantities. Intensive plant protection measures, soil testing surveys and fertiliser promotion programmes have also been envisaged.

In concrete terms, the Agricultural Production Programmes envisaged in the Fifth Plan are as under:—

- (i) Increase in foodgrains production from about 100 lakh tonnes at the end of the Fourth Plan (1973-74) to 150 lakh tonnes at the end of the Fifth Plan (1978-79). The production of cereals will be raised from an expected 92 lakh tonnes in 1973-74 to about 138 lakh tonnes in 1978-79 and of pulses from about 8 lakh tonnes in 1973-74 to 12 lakh tonnes in 1978-79. High Yielding varieties will be raised from 29.00 lakh hectares in 1973-74 to about 44.50 lakh hectares in 1978-79. The area under improved varieties (other than high yielding varieties) will also be increased from about 48.15 lakh hectares to 59.40 lakh hectares. The programme will be so directed as to ensure that the State becomes fully self-sufficient in the matter of foodgrains production by the middle of the Fifth Plan.

- (ii) Increase in the production of oil-seeds from 1.25 lakh tonnes at the end of the Fourth Plan in 1973-74 to 2.50 lakh tonnes in 1978-79. Special efforts will be made to promote the cultivation of groundnut, soyabean and sunflower in selected areas.
- (iii) Production of Jute will be increased from about 8 lakh bales at the end of Fourth Five-Year Plan to 10.50 lakh bales by the end of Fifth Plan. The production of mesta will also be increased from 1 lakh bales to 1.25 lakh bales.
- (iv) Production of sugarcane will be raised by 30 per cent from about 65 lakh tonnes to 85 lakh tonnes by the end of the Fifth Plan.
- (v) The production of potatoes is proposed to be increased from 14 lakh tonnes in 1973-74 to about 40 lakh tonnes in 1978-79.
- (vi) Development of horticulture will receive particular attention, specially in plateau areas and production of vegetables in industrial areas.

3. *The Fifth Plan Outlay.*—An outlay of Rs. 1,616 lakh is proposed during the Fifth Plan, the break-down of which under major items is as under.—

Serial no.	Name of the programmes.	Proposed outlay.
		(Rs. in lakhs)
1	Practical training to Agricultural Graduates .. ..	18
2	Refresher course training for V.L.Ws. .. ..	30
3	Training of farmers .. ..	64.65
4	Exchange of farmers .. ..	4.50
5	Development of Seed Farms .. ..	40
6	Share capital and margin money of the Seed Corporation ..	100
7	Scheme of Seed Certification .. ..	31.74
8	Seed testing laboratory at District level .. ..	25.00
9	Seed Act Enforcement Agency .. ..	20.08
10	Fertiliser production scheme and fertiliser testing laboratory ..	53.28
11	Organic manures scheme .. ..	42.83
12	Plant protection .. ..	300.30
1	Agricultural implements and machineries .. ..	27.29
14	High Yielding varieties programme .. ..	280.13
15	Pulses programme .. ..	143.50
16	Commercial crops .. ..	127.99
17	Small and marginal farmers and Agricultural labourers .. ..	38.29

4. *Inputs Programme.*—(a) *Irrigation.*—The net irrigation potential by the end of the Fourth Five-Year Plan will be 29.04 lakh hectares. By the end of the Fifth Plan it is expected to increase to 50.35 lakh hectares. Simultaneously steps are being taken to step up the utilisation of irrigation potential with a view to taking advantage of the irrigation potential created.

(b) *Fertiliser and manures.*—The consumption of Fertiliser in the terminal year of the Fourth Plan is expected to be as follows:—

Nitrogen	..	..	..	2 lakh tonnes.
P <sub>2</sub> O <sub>5</sub>	..	..	..	0.85 lakh.
K <sub>2</sub> O	..	..	..	0.40 lakh.

The targets during the Five-Year Plan is as follows:—

Year.	N.	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Total Nutrients.
1	2	3	4	5
1974-75	2.60	1.34	0.64	4.58
1975-76	3.02	1.89	0.78	5.69
1976-77	3.70	2.46	0.93	7.09
1977-78	4.31	3.00	1.05	8.36
1978-79	4.73	3.40	1.17	9.30
Total	18.36	12.00	4.57	35.02

Along with the fertilisers, there is a programme to utilise Organic manures. It is proposed to cover all urban wastes and increase the production of rural compost from 1.20 lakh tonnes in the year 1973-74 to 2 lakh tonnes by the end of the Fifth Five-Year Plan.

(c) *Plant protection.*—An intensive plant protection programme has been visualised.

(d) *Agricultural implements and Machineries.*—Schemes have been drawn up for the popularisation of improved implements, quality marketing and strengthening of agro-service facilities.

(e) *Agricultural credit.*—The requirement of short-term credit for inputs has been estimated at Rs. 166.80 crores on an average per year. It is expected that about 70 per cent of the farmers will need agricultural credit which works to Rs. 116 crores per year on an average. The year-wise break-up of Agricultural credit and the sourcewise break-up of availability has been assumed as follows:—

Yearwise break-up of Agricultural credit.

(In crores of rupees.)

	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6
Seeds	6.50	7.00	7.50	8.00	8.50
Fertilisers	80.00	100.00	130.00	170.00	220.00
Pesticides	5.00	10.00	16.00	26.00	40.00
Total	91.50	117.00	153.50	204.50	268.50

70% of the above statement comes to the following:—

(In crores of rupees)

	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
	64.00	82.00	107.00	140.00	188.00

Sources wise break-up is as follows:—

(In crores of rupees.)

	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6
Co-operative 50 per cent ..	32.00	41.00	53.00	70.00	94.00
Institutional 20 per cent ..	12.80	16.40	21.40	28.00	37.60
Direct Financing 30 per cent ..	19.20	24.60	32.10	42.00	56.40
Total .. ..	64.00	82.00	107.00	140.00	188.00

5. *High-yielding varieties, I.A.D.P. and multiple cropping programmes.*—*High-yielding varieties programme.*—The high-yielding varieties programme of foodgrains has become the most important strategy in the campaign for self-sufficiency in food. The high-yielding varieties of Kharif crops have not spread as expected. This is due to the fact that paddy as well as Kharif Maize are high risk crops. While the area under high-yielding varieties of paddy and Kharif maize has not shown the desired increase, the area and production of high-yielding varieties of wheat have gone up considerably. During 1973-74 an Emergency Production Programme for Rabi cultivation was launched and the area under wheat has increased considerably. During Kharif 1973-74 a programme for Emergency production for paddy and maize has been drawn up and it is hoped that the area under high-yielding varieties of paddy will go up from 5.26 lakh hectares during 1972-73 to 10 lakh hectares during 1973-74. The area under hybrid maize during Kharif has also not shown the expected increase. The area under hybrid maize during winter is, however, rising rapidly. It is expected that the area under hybrid maize would go up to 2.50 lakh hectares during 1973-74.

It is proposed to cover about 44.50 lakh hectares under High-Yielding Varieties Programme during the Fifth Plan period. The year wise break-up of the coverage has been envisaged as follows:—

Year.		Paddy.	Wheat.	Maize.	Others.	Total(In lakh Heer.)
1		2	3	4	5	6
1974-75	.. ..	11.00	16.50	2.50	..	30.00
1975-76	.. ..	12.00	19.00	3.00	..	34.00
1976-77	.. ..	13.00	21.00	3.50	..	37.50
1977-78	.. ..	14.00	23.00	4.00	..	41.00
1978-79	.. ..	15.00	25.00	4.50	..	44.50

It is expected that the additional area proposed to be brought under the High-Yielding Varieties Programme would create an additional production potential of 28.00 lakh tonnes of foodgrains by the end of the Fifth Five-Year Plan.

*Intensive Cultivation Programme.*—The intensive cultivation programme has been extended to 232 blocks of the State. 87 Shadow Package Blocks are proposed to be upgraded to Full-Package Blocks.

*Multiple Cropping.*—The area under Multiple Cropping by the end of the Fourth Plan is likely to be 34.75 lakh hectares. It is proposed to bring an additional area of 27.80 lakh hectares under this programme during the Fifth Plan period.

The additional area proposed to be brought under Multiple Cropping Programme is expected to create an additional production potential of 22 lakh tonnes of foodgrains and 0.72 lakh tonnes of other crops.

6. *Horticultural Programme.*—It is proposed to take up the following Horticultural Projects during the Fifth Plan:—

- (a) Banana development.
- (b) Pineapple development.
- (c) Litchi development.
- (d) Citrus development.
- (e) Coconut and arecanut development.
- (f) Grape adaptive trials and demonstration.
- (g) Temperate fruits development in the Southern Plateau.
- (h) Vegetable seed production and progeny fruit Orchards.
- (i) Intensive Vegetable Cultivation.
- (j) Mali training.

7. *Jute Development Programme.*—Jute and Mesta are important foreign exchange earning crops and give employment to 5 lakh families and 10 thousand workers in industries. These crops have met stiff competition with High-Yielding Varieties of

foodgrains. Due to unremunerative price the area and production have varied widely from year to year, as would be evident from the following table:—

Year.	Jute.		Mesta.	
	Area in lakh hectares.	Production in lakh bales.	Area in lakh Hectares.	Production in lakh bales.
1961-62 .. ..	1.98	10.53	0.59	2.46
1966-67 .. ..	1.98	9.38	0.39	1.98
1967-72 .. ..	1.29	6.57	0.32	1.33
1972-73 .. ..	1.72	6.50	0.24	0.90

It is likely that the production of Jute before the commencement of Fifth Five-Year Plan would be 8 lakh bales in 1.40 lakh hectares and that of Mesta 1 lakh bales in 0.40 lakh hectares. In view of the importance given to Jute and Mesta by the Government of India the target of production by the end of Fifth Five-Year Plan is kept at 10.50 lakh bales of Jute and 1.25 lakh bales of Mesta.

It is possible to achieve the target by encouraging the yield per unit area through intensive cultivation including irrigation, improved seeds, adequate fertiliser and plant protection measures.

It is also necessary to improve the quality of Jute fibre by improving retting and grading so that the farmers are assured of a better price.

Government of India have sanctioned an intensive cultivation programme in 0.40 lakh hectares for Kisunganj subdivision and part of Purnea District for which the entire cost is to be met by the Government of India.

In view of the importance of these fibre crops a part of the infrastructure and development work has also been provided for in the State Plan and it is necessary to provide for the same in the Fifth Five-Year Plan period.

8. *Oil-seed-cum-Pulses Development Programme.*—The country is very much short of oil and fats. The area and production of oil seeds in the State during the last three years are as follows:—

Name of the crops.	Year.					
	1969-70.		1970-71.		1971-72.	
	Area in lakh hectares.	Production in lakh tonnes.	Area in lakh hectares.	Production in lakh tonnes.	Area in lakh hectares.	Production in lakh tonnes.
1	2	3	4	5	6	7
Rape and Mustard ..	0.87	0.49	0.85	0.49	0.78	0.35
Linseed ..	0.56	0.19	0.71	0.28	0.74	0.31
Sesamum ..	0.36	0.10	..	..	..	..
Castor ..	0.04	0.02	0.05	0.02	0.02	0.05
Groundnut ..	0.03	0.03	0.04	0.03	0.05	0.05
Others ..	0.02	0.01	0.02	0.01	0.01	..
<b>Total ..</b>	<b>1.88</b>	<b>0.84</b>	<b>1.67</b>	<b>0.83</b>	<b>1.63</b>	<b>0.76</b>



*Rape and Mustard.*—This is the most important oil-seed crop of the State. However, the area and production of this crop seems to be on decline. It is the most popular oil seed crop.

*Linseed.*—This is an important Rabi oil-seed crop. Being a short duration deep-rooted crop, it has been found to be eminently suitable for dry land farming.

*Sesamum.*—This is Kharif oil-seed crop and is widely grown in the poor land and hill slopes of the plateau area. Oil of this crop is widely used for cooking and hair oil.

*Castor.*—This is an important oil-seed crop. Its oil is widely used for industrial purposes.

*Groundnut.*—Its oil and cake being very valuable as food, much greater attention is needed for the development of this crop.

*Sunflower and Soyabean.*—Amongst the new introductions of oil-seed crops sunflower and Soyabean have come into limelight recently. Experiments have shown that these crops can be successfully grown in this State. Its seeds are very rich in oil and cake is very valuable as feed. It is, therefore, proposed to undertake large scale demonstrations for these two crops in the State.

*Pulses.*—With the concentration of efforts on the production of cereals, the pulse crops have generally been neglected and the country is now short of pulses. It has become necessary to import pulses in substantial quantities.

The area and production of pulses in the State are gradually falling as would be evident from the following tables :—

Name of Pulse crop.	Area under pulse crop (in lakh hectares).				
	1967-68.	1968-69.	1969-70.	1970-71.	1971-72.
1	2	3	4	5	6
Gram .. ..	3.31	2.38	2.42	2.44	2.41
Arhar .. ..	1.86	1.74	1.61	1.50	0.95
Masoor .. ..	1.34	1.29	1.41	1.41	1.57
Peas .. ..	0.58	0.71	0.71	0.63	0.18
Khesari .. ..	6.04	6.45	7.03	6.56	6.67
Urid .. ..	1.16	1.11	N.A.	1.09	0.94
Moong .. ..	0.97	1.07	N.A.	1.04	0.13
Other Kharif pulses .. ..	1.69	1.39	N.A.	1.47	3.47
Other Rabi pulses .. ..	0.06	0.10	N.A.		
<b>TOTAL .. ..</b>	<b>17.01</b>	<b>16.24</b>	<b>17.01</b>	<b>16.14</b>	<b>16.32</b>

Year.	Production of pulses (in lakh tonnes).						
	Arhar.	Gram.	Other pulses.	Kharif pulses.	Other Rabi pulses.	Total.	
1	2	3	4	5	6		
1967-68	..	..	1.57	2.05	1.17	5.02	9.81
1968-69	..	..	1.47	1.58	1.02	5.68	9.75
1969-70	..	..	1.11	1.47	1.26	4.97	8.81
1970-71	..	..	11.19	1.74	1.29	5.49	9.71
1971-72	..	..	0.59	1.70	0.76	5.84	8.89

It would appear from the above tables that area and production of important pulses have been gradually falling. While it may not be possible to increase the area under pulses it is possible to increase the yield per hectare by mixing the seeds with bacterial culture and by application of phosphatic fertilisers to the pulse crops.

There are some short duration varieties of pulses which can fit in very well in the multiple cropping programme and some pulses like the Baisakhi moong can be used as catch crop between the two main season crops.

It is proposed that the programme for intensification of pulse production is taken up in conjunction with the oil-seeds development programme so that the same staff may be utilised economically for the Pulses Development Programme also.

It is proposed to have a package programme of oil-seeds and pulses development in five blocks of Chhotanagpur and Santhal Parganas every year. These oil-seed crops and pulses can find a suitable place in double cropping in dry land farming programme. This will strengthen the economy in the plateau region of the State which is inhabited by Adivasi. It is also proposed to have a shadow package programme in oil-seed development areas.

9. *Virginia Flue-Cured Tobacco.*—Virginia Flue-Cured Tobacco is an important foreign exchange earning crop. A small centrally sponsored pilot project of V.F.C. tobacco has been under execution in the State for some time and trials have shown sufficiently that good quality V.F.C. tobacco with very low nicotine content suitable for export can be grown. In view of the fact that V.F.C. tobacco can be successfully grown in the poor upland of the Chhotanagpur plateau and in the district of Santhal Parganas, it can contribute significantly to the betterment of the economic condition of the poor adivasis who inhabit these areas.

A scheme for development of V. F. C. tobacco has been prepared for three blocks of Hazaribagh district for execution in the central sector during the Fifth Five-Year Plan period. On a similar pattern, a development programme of V.F.C. tobacco in the state sector has been prepared for the Santhal Parganas district.

10. *Cotton Development Programme.*—Trials have indicated that cotton can be successfully grown in the Chhotanagpur plateau and Santhal Parganas district. A

Cotton Development Programme was started in the State in the past but no arrangement had been made for ginning and marketing. The development programme, therefore, had to be abandoned.

The cotton grown in the Kharif is liable to very severe attack of pests and diseases which require very intensive and costly control measures. It, therefore, becomes difficult for the unsophisticated Adivasi growers of Chotanagpur and Santhal Parganas to adopt intensive plant protection measures.

Trials in West Bengal have shown that cotton can be grown successfully as a Rabi crop. If the crop is sown in October-November, it comes to flowering and fruiting during the dry period of the year and pest and disease problems are minimised. It may, however, be difficult to take up cultivation of cotton as a Rabi crop in Chotanagpur and Santhal Parganas where the facilities of irrigation are not adequate. It is therefore, proposed to start commercial cultivation of cotton as a Kharif crop and trials for cultivation of cotton as Rabi Crop in irrigated and un-irrigated areas of Chotanagpur and Santhal Parganas that commercial growing of cotton as a Rabi crop may be planned later on the basis of results obtained from trials.

For the success of cotton cultivation, it is necessary that adequate arrangement for ginning, baling and marketing is made for the growers so that they are not put to disadvantage in growing cotton. Provision for ginning and baling can be made by the Agro-Industries Corporation and other co-operative agencies. If arrangements for ginning, baling and marketing are adequate the growers can be sure of an economic return from cotton cultivation. Also if cotton can be successfully grown as Rabi crop in the Chotanagpur and Santhal Parganas, the growers can have a very remunerative second crop which will go a long way in bettering their economic condition.

With the above objective in view, a development programme for cotton has been drawn up for three selected blocks of the Ranchi district for execution during the Fifth Five-Year Plan.

11. *Chillies Development Scheme.*—Chilli is an important commercial crop of the sandy loam and diara areas of this State and is grown in 32,000 hectares. The production of this crop is very erratic as it is very much susceptible to high rainfall and a number of diseases like mozaic, dieback etc. At present mostly local varieties occupy the field and need to be replaced by improved varieties. It is proposed to take up the development work in 5 Blocks.

12. *Small Farmers, Marginal Farmers and Agricultural Labourers Programme.*—Three projects relating to Small Farmers Development and two relating to the Marginal Farmers and Agricultural Labourers are in progress. The following 12 districts are proposed to be included during the Fifth Plan:—

- (i) *S.F.D.A.*—(1) Darbhanga, (2) Madhubani, (3) Saran, (4) Siwan, (5) Muzaffarpur, (6) Bhojpur, (7) Gaya, (8) Monghyr, and (9) Saharsa.
- (ii) *M.F.A.L.*—(1) Santhal Parganas, (2) Hazaribagh, and (3) Dhanbad.

The target is to identify seventy thousand Small Marginal Farmers in the proposed Small Farmers Development Agency areas and thirty-five thousand Marginal Farmer and Agricultural Labourers in the Proposed M.F.A.L. areas.

13. *Drought prone areas development programme*—This programme, is under execution in Jamui-Nawadah and Bhabhua-Sasaram as a central scheme. While this will continue as such, for the remaining items of integrated Agricultural Development Programme, provision has been made along with the rest of the area in the general plan of development of agricultural production of the State.

14. *Dry land Farming.*—In the five districts of Chotanagpur and in the district of Santhal Parganas despite the fact that the annual rainfall is around 40'', the rain water quickly runs off and the moisture content of the soil goes below the required level due to the undulating train of this region. It is, therefore, not possible to grow second crop in this area without adopting scientific techniques of dry land farming. The project is under operation in Chandwa in the district of Palamau as a Central scheme. It is proposed to bring 15 blocks of the plateau region under this scheme during the Fifth Plan.

15. *Contingency plan for Drought and Flood-prone areas.*—This State has suffered from droughts and floods continually resulting in colossal loss of agricultural production and untold human miseries. The recurrence of such natural calamities have naturally focussed attention on Contingency plans, in absence of which relief measures are taken on extensive, though unintegrated manner, resulting in substantial reduction of plan outlays. During the three years between 1970-71 to 1972-73 Government of India have advanced, on an average, Rs. 8 crores per year as short-term loans to the State Government. While the long-term solution of the natural calamities of droughts and floods is the development of surface and ground water resources and flood control-cum-drainage measures, the short-term measure is to keep contingency plans in readiness to be put in operation once the State is affected by any such natural calamity. A Contingency Plan will take into consideration of exigencies of the situation and the peculiar conditions of the area which may be affected. Detailed Contingency Plans are being prepared in respect of the areas which are usually hit by drought or flood. The Contingency Plans are being formulated on the assumption that at least Rs. 800 lakhs would be made available by the Centre as an outright grant in the year in which the State is hit by any such natural calamity.

16. *Liming of Acidic Soils in Plateau Region.*—A reconnaissance Soil Survey done has shown that most of upland soils of the plateau region is acidic. The acreage of such acidic land has been estimated at over 20 lakh acres. The P. H. of the soils of the area ranges between 5.5. to 6.5. For optimum production, liming of the soil is essential. Liming, however, is an expensive practice. It requires an investment of about Rs. 375 per hectare (Rs. 150 per acre) at full dose every five years. The tribal farmers are not in a position to adopt this practice unless it is substantially subsidised.

In the special programme for Chotanagpur and Santhal Parganas area, 1973-74 it was proposed that liming would be done in 1 lakh acres out of the estimated total of 20 lakh acres. It was proposed that 75 per cent of the cost of liming would be subsidised. Accordingly, the cost was estimated at Rs. 112.50 lakhs. The Special Programme for the Chotanagpur and Santhal Parganas area is under consideration of the Planning Commission. As liming is essential, though expensive, a modest programme has been visualised during the Fifth Plan. It is proposed that in the six districts of this region liming will be done in an area of 6,000 hectares per year at the rate of 1,000 hectares per district so that the total area covered by the end of the Fifth Plan period, will be 30,000 hectares. The cost of liming for 6,000 hectares at the rate of Rs. 375 per hectare will come to Rs. 22.5 lakhs per year. The total requirement during the Fifth Plan will, therefore, be of the order of Rs. 112.50 lakhs. In view of the poverty of the tribal farmers it is proposed to subsidise the liming operation to the extent of 75 per cent. The total requirement for this programme will, therefore, be Rs. 85 lakhs during the Fifth Plan.

In view of the constraint of resources, however, it is proposed that this amount may be made available as special Central assistance beyond the plan ceiling.

17. *Sugarcane Development.*—Sugarcane is the most important commercial crop of the State but the area and production of the crop have varied as price offered to the growers has not always been remunerative. The crop has met a stiff competition

with the high yielding varieties of foodgrains. The yield of cane per hectare has remained low mainly because the crop is not adequately irrigated and fertilisers are not applied in requisite quantities. The Fourth Plan target of cane production was fixed at 75 lakh tonnes. During 1972-73 the sugarcane production was of the order of 55 lakh tonnes. The programme for intensive cultivation of sugarcane has already been introduced in 19 factory areas of the State. It is proposed to introduce the intensive cultivation programme in the remaining 11 factory areas.

Sugar production has been an important industry in this State. There are 30 factories in the State. Almost all the factories need rehabilitation and modernisation. Development of infra-structures like road, irrigation, transport etc. in the sugarcane area is also urgently needed.

*Long-term measures.*—It has been estimated that the modernisation and rehabilitation of Sugar Factory will cost about Rs. 15,00 lakhs out of which an amount of Rs. 5,00 lakhs is expected to be contributed by the factories and Rs. 10,00 lakhs are proposed to be obtained from the Industrial Development Bank of India, the Industrial Finance Corporation, the Industrial Rehabilitation Corporation, etc. The road development programme is being linked to the general road development programme in the rural areas. Similarly, creation of irrigation potential in the sugarcane area is also being linked to the general programme of creation of additional irrigation facilities. For 500 tractors, trailers etc. about Rs. 30 lakhs will be required.

*Short-term measures.*—Among the short-term measures are the provisions for seed, fertilisers, pesticides and cash component. The requirement has been estimated at Rs. 18,00 lakhs. Out of this 50 per cent is expected to be available from the Canegrowers Co-operative Societies and about 5 per cent is expected to be available from the mills. Therefore, the net requirement will be of the order of Rs. 810 lakhs.

In view, however, of the overall constraint of resources, a small provision of Rs. 80 lakhs only has been made for cane development.

18. *Lac Development.*—Lac has special economic importance. It earns, on an average Rs. 500 lakhs worth of foreign exchange, provides employment to the tribals on a large scale and sustains a large number of cottage industries. The programme visualised in this field is the maintenance of 39 Brood Lac Farm-cum-Demonstration Centres, setting up of farms comprising 4.25 lakh of Palas trees and raising of Lac lost trees on 665 hectares, besides development of forest-based Lac Industries. The estimated cost is Rs. 20 lakhs during the Fifth Plan.

19. *Area Development Programme.*—There are three major command areas in this State, namely, the Sone, the Kosi and the Gandak. Draft law providing for the establishment of Integrated Area Development Agencies is being finalised. It is proposed to establish such agencies for the command areas. Indeed such agencies are visualised for integrated rural areas agricultural development in suitable other areas also. These agencies will borrow money in the open market, establish Co-operative Societies, accept grants and subscriptions from the State Government, Local Bodies and any private person. The agencies will have powers to advance loans. The agencies will be responsible for the integrated development of the area. Some of the functions of the agencies will be development and utilisation of irrigation potential, construction of field channels and field drainage, land shaping, exploitation of ground water, determination of cropping pattern, provision of inputs and facilities like communication, electrification etc. An outlay of Rs. 300 lakhs is visualised for providing share capital to the agencies to be established during the Fifth Plan period.

20. *Necessary statements are enclosed.*

## ANNEXURE I.

## FOURTH FIVE-YEAR PLAN TARGET AND ACHIEVEMENT OF CROP PRODUCTION.

Serial no.	Item.	Unit.	Fourth Plan.		Actual Production.				Anticipated pro- duction (targetted)		Reasons short- fall, if any.
			Assumed base level.	Targetted level for 1973-74.	1968-69.	1969-70.	1970-71.	1971-72.	1972-73.	1973-74.	
1	2	3	4	5	6	7	8	9	10	11	12
1	Foodgrains	.. Thousand tonnes.	86,00	1,10.00	88,52	85,18	84,86	92,86	81,91	1,10.00	Explained in the write-up.
2	Sugarcane (in terms of Gur).	Ditto ..	6,90	7,25	5,91	6,56	6,20	4,46	5,50	7,25	
3	Oil-seeds	.. Ditto ..	1,00	1,25	76	78	81	76	1,00	1,25	
4	Cotton	.. Thousand bales.	..	..	..	..	..	..	..	..	
5	Jute and Mesta	.. Ditto	10,65	11,00	7,06	7,93	9,53	5,79	10,00	11,00	
6	Tobacco	.. ('000 M.T.)	19	24	14	12	12	12	23	24	



State—Bihar.

## ANNEXURE III.

## FIFTH FIVE-YEAR PLAN TARGETS OF CROP PRODUCTION FOR TERMINAL YEARS.

Serial no.	Item.	Fifth Plan Base Level 1973-74.			Fifth Plan Targets 1978-79.		
		Area.	Yield.	Production.	Area.	Yield.	Production.
1	2	3	4	5	6	7	8
1	Foodgrains—						
	(a) Rice .. ..	54.00	0.93	50.00	60.00	1.00	60.00
	(i) Autumn .. ..	5.00	0.80	4.00	7.00	0.85	6.00
	(ii) Winter .. ..	46.50	0.90	43.00	43.00	0.18	46.50
	(iii) Summer .. ..	2.50	1.20	3.00	6.00	1.25	7.50
	Total—Rice .. ..	54.00	0.93	50.00	60.00	1.00	60.00
	(b) Wheat .. ..	20.00	1.50	30.00	30.00	1.83	55.00
	(c) Maize .. ..	10.00	1.00	10.00	12.00	1.23	15.00
	(d) Jowar .. ..						
	(e) Bajra .. ..	6.00	0.35	2.00	8.00	1.00	8.00
	(f) Other cereals .. ..						
	(g) Pulses .. ..	15.00	0.53	8.00	20.00	0.60	12.00
	Total—Foodgrains .. ..		0.95	1,00.00	1,30.00	1.15	1,50.00
2	Sugarcane (Gur) .. ..	1.70	3.82	6.50	1.70	5.00	8.50
3	Oilseed: .. ..	2.40	0.05	1.10	3.00	0.80	1.50
	(a) Traditional .. ..						
	(b) Non-traditional (Soyabean Sunflower etc.) .. ..						
	Total—(a)+(b) .. ..						
4	Cotton .. ..						
5	Jute and Mesta ('000 Bales) .. ..	1.00	4.73	8.25	1.90	6.18	11.75
6	Tobacco ('000 tonnes) .. ..	14	1.64	23	16	2.00	320
7	Coconut .. ..						
8	Areca nut .. ..						
9	Cashew .. ..						
10	.. ..						
11	.. ..						

NOTE.— Area—Thousand Hectare. Production—Thou and Tonnes. Yield—M.T.(Hectare).



## ANNEXURE IV.

## FIFTH PLAN-TARGET OF CROP PRODUCTION FOR FIVE YEARS.

Sl. no.	Item.	Fourth Plan anticipated p. oduction for five yeas.					Fifth Plan target for five years.				
		1969-70.	1970-71.	1971-72.	1972-73.	1973-74.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8	9	10	11	12
1	Foodgrains('000M/T)	8,518	8,486	9,286	8,191	11,000	12,000	12,000	13,000	14,000	15,000
2	Oilseeds('000 /MT.)	78	81	76	100	125	115	120	130	140	150
3	Sugarcane('000 M/T)	6,560	6,200	4,460	5,500	7,250	7,300	7,600	7,900	8,200	8,500
4	Cotton (lakh bales)	..	..	..	..	..	..	..	..	..	..
5	Jute (lakh bales) including Mesta('000 bales).	793	953	579	1,000	1,100	875	925	975	1,050	1,175

## ANNEXURE V.

## FIFTH FIVE-YEAR PLAN—SELECTED PROGRAMME—BASE LEVEL AND TARGETS.

Serial no.	Item.	Unit.	Fifth Plan Base level.	Fifth Plan Targets.
1	2	3	4	5
<b>1 Expansion of cropped area—</b>				
	(a) Gross Irrigated Cropped area .. .. .	('000 Hec .)	23,57	46,38
	(b) Gross Unirrigated cropped area .. .. .	"	81,00	90,00
	Total (a) and (b) .. .. .	"	1,04,57	1,36,38
<b>2 High Yielding (Cereal) Varieties ('000 Hect.)—</b>				
	(a) Paddy .. .. .	('000 Hect.)	10,00	15,00
	(b) Wheat .. .. .	"	16,50	25,00
	(c) Maize .. .. .	"	2,50	4,50
	(d) Jowar .. .. .	"	..	..
	(e) Bajra .. .. .	"	..	..
	Total .. .. .	"	29,00	44,50
<b>3 Consumption of Chemical Fertilisers, Nutrients—</b>				
	(a) Nitrogenous (in terms of N.) .. .. .	('000 tonnes)	2,00.00	4,73.00
	(b) Phosphatic (in terms of P205) .. .. .	"	85.00	3,40.00
	(c) Potassic (in terms of K20) .. .. .	"	40.00	1,77.00
	Total .. .. .	"	3,25.00	11,30.00
<b>4 Organic Manures and Green Manuring—</b>				
	(a) Urban compost .. .. .	"	120	200
	(b) Green Manuring .. .. .	Thou. hect.	..	..
	(c) Rural Compost .. .. .	(thou. N.T.)	85,00	1,50,00
	Total .. .. .	"	..	..
<b>5 Plant protection (Figure in tonnes)—</b>				
	(a) Consumption of pesticides .. .. .	"	1,246.5	1,563.5
	(b) Seed treatment chemicals .. .. .	"	15.0	16.0
	(c) Insecticides .. .. .	"	1,200.0	1,500.0
	(d) Fungicides .. .. .	"	30.0	45.0
	(e) Others .. .. .	"	1.5	2.5
	Total—(a) to (e) .. .. .	"	2,493.0	3,127.0
<b>6 Certified Seed—</b>				
Quantity distributed—				
	(a) Food Crops .. .. .	Thou. tonnes.	25	50
	(b) Others .. .. .	"	100	150
	Total—(a) and (b) .. .. .	"	125	200

## ANNEXURE V—concl'd.

Serial no.	Item.	Unit.	Fifth Plan Base Level.	Fifth Plan Target.
1	2	3	4	5
7	Agricultural Machinery and Implements—			
	(a) Tractors	Nos.	8,000	10,000
	(b) Power tillers	„	450	5,000
	(c) Threshers	„	6,000	40,000
	(d) Seed-cum-fertilizer drills	„	..	2,000
	(e) Sprayers/dusters/Hand operated	Sprayer	7,550	11,000
		Dusters	5,950	10,000
	Power operated	„	4,789	10,000
8	Agricultural Machinery Hiring Centres—			
	(a) Operated by Agro-industries Corporation	Nos.	26	60
	(b) Operated by others	„	75	600
9	Soil Conservation—			
	(a) Agricultural lands	Thousand hect.	172	+70
	(b) Catchment area of River Valley Projects	„	..	+20
10	Land Reclamation			
11	Regulated markets and sub-market yaers			
12	Grading Units—			
	(i) Co-operative	Nos.	67	60 and one grading laboratory.
	(ii) Departmental	„	..	..
	Total	..	..	..
13	Storage and Warehousing—			
	(a) Owned capacity of State	Thousand tonnes	60	75
	(b) Owned capacity of other State Godowns	„	40	60
	(g) Co-operative godowns	„	..	..
	Total—(a) to (c)	..	..	..
14	Short term Agricultural Credit—			
	(a) Advances during the year by co-operatives	Rs. in crores	20	60
	(b) Advances by commercial banks during the year	„	..	..
	Total—(a) and (b)	..	..	..
15	Investment Agricultural Credit—			
	(a) Medium-term advances by co-operatives during the Five-Year of the Plan.	Rs. in crores	3	10
	(b) Medium/Long-term advances by commercial banks during Five-Year of the Plan.	„	..	..
	(c) Long-term advances by Land Development Banks during five-years of the Plan (both ordinary and special loans).	„	13	60
	Total—(a) to (c)	..	..	..

## ANNEXURE VI.

## FIFTH FIVE-YEAR PLAN (1974-75).

Head-wise/sub-headwise break-up of the Financial Outlays.

(Rs. in lakhs)

Serial no.	Head of Development programme.	Fourth Plan.		Fifth Plan (proposed outlay).		
		Approved outlay.	Anticipated Expd.	Investment.	Current outlay.	Total.
1	2	3	4	5	6	7
<b>1</b>	<b>Agricultural Research and Education—</b>					
	(1) Agricultural Research .. ..	..	..	..	..	..
	(2) Agricultural Education .. ..	..	..	205.79	137.49	..
	Total—(1) and (2) .. ..	..	..	205.79	137.49	..
						3,00.00
<b>2</b>	<b>Agricultural Extension and Administration—</b>					
	(1) Farmers Training .. ..	..	..	11.15	7.09	2.46
	(2) Agricultural Extension and Extension Training .. ..	..	..	1,36.04	75.30	27.26
	(3) Agricultural Administration .. ..	..	..	27.50	4.41	..
	(4) Agricultural Statistics .. ..	..	..	..	..	..
	Total—(1) to (4) .. ..	..	..	1,74.69	46.80	29.72
						292.72
<b>3</b>	<b>Agricultural inputs—</b>					
	(1) Seeds .. ..	..	..	71.30	71.01	47.71
	(2) Fertilisers and Manures .. ..	..	..	8.00	4.05	52.67
	(3) Plant protection .. ..	..	..	1,97.00	93.70	146.25
	(4) Implements and Machinery .. ..	..	..	8.00	10.07	19.17
	Total—(1) to (4) .. ..	..	..	2,84.30	1,48.83	2,65.00
						6,67.62
<b>4</b>	<b>Crop Oriented Programmes—</b>					
	(1) H.V.P. .. ..	..	..	4,00.0	198.53	21.47
	(2) Pulses .. ..	..	..	6.00	6.37	26.87
	(3) Commercial Crops .. ..	..	..	80.34	43.34	47.25
	Total—(1) to (3) .. ..	..	..	4,86.33	2,48.24	95.59
						5,51.62

ANNEXURE VI—*concl'd.*

(Rs. in lakhs.)

Serial no.	Head of Development programme.	Fourth Plan.		Fifth Plan (proposed outlay)		
		Approved outlay.	Anticipated Expd.	Investment.	Current outlay.	Total.
1	2	3	4	5	6	7
5	Minor Irrigation .. ..	5,400	4,372.68	8,675	1,825	10,500
6	Soil and Water Conservation .. ..	350	301.86	751	119	870
7	Agricultural Credit—					
	(a) Support to Ordinary Debenture of Lds. .. ..	..	..	..	..	..
	(b) Support to Special Debenture of LDBs. .. ..	..	..	..	..	..
	Total—(5) to (6) .. ..	5,750	4,374.54	9,426	1,944	11,370
8	Agricultural Marketing Storage and Warehousing—					
	Agricultural Marketing .. ..	91.00	1,24.29	..	..	3,00.00
	Total .. ..	91.00	1,24.29	..	..	3,00.00
9	Agricultural programmes for Special Classes and Areas—					
	(1) Small and Marginal Farmers and Agricultural Labour. .. ..	..	..	..	..	38.00
	(2) Development of Irrigation Command Areas .. ..	1,00.00	86.22	..	..	3,00.00
	(3) Development of droughtprone areas—					
	(a) Dry Farming .. ..	..	..	..	..	..
	(4) Development of any other specific areas .. ..	..	..	..	..	..
	Total—(1) to (4) .. ..	100.00	86.22	..	..	4,04.14
	GRAND TOTAL —(1) to (9) .. ..	13,42.61	8,67.87	..	..	25,16.00

## ANNEXURE VII.

		Crop. (88'000 Hectares.)					
Minor Irrigation.	Surface Water Scheme.	Ground Water Scheme.		Total (lakh acres.)			
<b>1. Benefits—</b>							
(i) Gross Area under Minor Irrigation to end of 1968-69 after deducting depreciation.	..	(i) Existing potential	..	16.84			
		(ii) To be created in 1973-74		3.98			
(ii) Gross area (after deducting depreciation) brought under irrigation during Fourth Plan—	..	(iii) Total irrigation potential at the end of Fourth Five-Year Plan.		20.82			
(a) Target.							
(b) Likely achievement.		(iv) Total at the end of Fifth Five-Year Plan.		35.40			
(iii) Increase in grow are targeted during Fifth Plan taking into account the depreciation.		(Number in '000)					
<b>2. Physical progress—</b>							
	To end of 1968-69.	Up to Fourth Plan.	Up to Fifth Plan.				
(a) Surface water scheme.							
(b) Ground water schemes.—							
(i) Dugwells .. .. .		182		+165			
(ii) Improvement of dugwells by boring and deepening.		25		+50			
(iii) Tube-wells .. .. .		18		+27.5			
(a) State .. .. .		2		+2.5			
(b) Privats .. .. .		16		25			
(iv) Diesel pumpsets .. .. .	To end of			(Rs. in lakhs.)			
(v) Electric pumpsets.							
(i) Surface Water Scheme.		During Fourth Plan.		During Fifth Plan.			
		State Plan resources.	Institutional resources.	Private resources.	State Plan resources.	Institutional resources.	Private resources.

## CHAPTER III

### LAND REFORMS

Land Reforms has been the corner-stone of State policy for development of the agrarian sector. This policy is re-affirmed as essential to the objectives of increasing agricultural productivity, promoting fuller utilisation of available man-power and ensuring distributive justice. The proposals regarding land reforms relate mainly to the abolition of intermediaries, including payment of compensation by the State for acquisition of their intermediary interest, imposition of ceiling on agricultural holdings, acquisition of rights of ownership by under-raiyats, regulation of rents, consolidation of holdings, preparation of records of rights, distribution of land among the landless agricultural workers and strengthening of Revenue administration for implementation of land reforms measures.

2. The first step taken in the direction of land reforms after independence was the State take-over of all intermediary rights and interests free of encumbrances. As a result, the tenants were freed from the oppressive exaction of the feudal landlords and brought into direct relationship with the State. Thereafter a series of legislative measures were enacted, and the earlier legislations amended where necessary with the objective of providing fixity of rent, security of tenure, distribution of land amongst the landless, protection to the weaker section of the tenantry, ceiling of land holdings, consolidation of holdings and prevention of fragmentation, Bhoodan and Gramdan legislation and restoration of lands to Adivasis, particularly Tana Bhagats. At the same time, the importance of up-to-date land records was keenly felt, and with this in view field bujharat operations and later full scale survey and settlement operations were taken up in several districts. Some of the more important legislative and other measures under way are as follows:—

#### **(i) Recognition of rights of persons under the Bihar Privileged Persons Homestead Tenancy Act, 1947.**

With a view to conferring tenancy rights in respect of homestead land to a privileged person, namely, a person who holds homestead land under another person and is, or but for special contract would be liable to pay rent for such homestead and besides his homestead holds no other land or holds any such land not exceeding one acre, in rural area, the Bihar Privileged Persons Homestead Tenancy Act, was passed as far back as 1947. Since the enactment of this legislation Government were anxious that the rights of the privileged tenants be recognised. However, for many years precious little was done to implement the Act. Then in a special drive in 1970 certificates recognising homestead rights were distributed to nearly 8.13 lakh tenants. Remaining tenants are proposed to be given the necessary protection during 1973-74.

There were cases of illegal eviction of the privileged tenants by the landlords which came to the notice of Government. By bringing suitable amendment through an ordinance in 1973 the Collectors have been empowered to issue interim injunction against apprehended evictions *suo moto* or on petition and such evictions have been made a cognisable offence.

In addition, it is the declared policy of Government that each privileged tenant should be provided with not less than two decimals of land. In other words, where the area under a privileged tenant is less than two decimals the shortage should be made up by settlement of Government land.

**(ii) House-sites for Rural landless**

According to 1971 Census, the population of Scheduled Castes and Scheduled Tribes was 7.9 millions and 4.9 millions respectively and they together constituted 22.7 per cent of the total population. Considering that more than two-thirds of the total population is below the poverty line, it can be reasonably assumed that an overwhelming majority of the Scheduled Castes and Tribes (12.8 millions) live below the poverty line. Apart from low incomes, other aggravating factors are (a) low level of urbanisation, (b) mounting unemployment and under-employment, (c) lop-sided industrial structure and (d) a very high density of population.

As the State has already secured considerable voluntary donation of land for distributing it to the landless, there is hardly any scope for getting more land through voluntary effort. The District Collectors have nevertheless been asked to collect data regarding (a) the total number of homeless families, (b) the requirement of house-site land at the rate of 130 sq. yds. per family, (c) the extent to which Government or public land is available in the village where homesteads are proposed for the landless families, and (d) whether facility of drinking water exists on the proposed site. These data when compiled and analysed will show the exact size of the problem. In the meantime, on the basis of sample surveys conducted in different blocks, it has been gathered that homesteads have to be provided to approximately 3.00 lakh homeless families. At the rate of 130 sq. yds. per family, 8,058 acres of land is required. Assuming that about 5 per cent of the required land is available out of the land belonging to Government, about 7,655 acres of land would have to be acquired for providing house-sites to landless persons. It is proposed to obtain as much of this land by negotiation as possible so as to minimise the cost and time factor.

Schemes for providing home-sites to 21,753 homeless in 36 blocks of this State have already been sanctioned by the Government of India in the year 1972-73 at a cost of Rs. 42,24,250 (Rs. 30,44,530 development cost plus Rs. 11,79,720 cost of land acquisition). Excluding this amount, the requirement of funds will be of the following order:—

	Rs. in lakh.
1. Cost of acquisition of land for 2,78,247 families at the rate of 130 sq. yds. per family <i>i. e.</i> , 7,473 acres less 5 per cent <i>i. e.</i> , 374 acres— 7,099 acres at an overall average rate of Rs. 5,000 per acre.	3,54.95
2. Cost of development of 2,78,247 homesteads at the rate of Rs. 150 per homestead.	4,17.37
3. Cost of implementing the scheme .. .. .	27.68
	8,00.00

The foregoing outlay which errs on the side of a conservative estimate is sought to be provided under the Minimum Needs Programme.

It is felt that unless the scheme is amplified and strengthened so as to include assistance for the construction of houses, the main purpose of providing shelter to the homeless may not be served.

**(iii) Implementation of Ceiling Legislation :**

The Bihar Land Reforms (Fixation of Ceiling Area and Acquisition of Surplus Land) Act was enacted in 1961 and came into force with effect from 1st April 1962.



By a recent amendment in the form of a Bill which has received the President's assent recently, the ceiling has now been modified to 15 acres, 18 acres, 30 acres, 37½ acres and 45 acres of land for different classes of land and exemptions available earlier have been deleted. Approximately 4,000 acres of land was acquired as surplus area under the earlier Ceiling Act for distribution amongst the landless. Provision has been made for redistribution of the surplus among the eligible categories. It is necessary to provide credit and extension support to those who will receive the surplus land so distributed and this is being provided for in the appropriate sectors.

**(iv) Settlement of land with members of the Scheduled Castes, Scheduled Tribes, Backward Classes, Annexure I and Defence Personnel**

It is the declared policy of Government to settle culturable waste land in rural areas belonging to Government with landless members of the Scheduled Castes, Scheduled Tribes, Backward Classes Annexure I and Defence personnel up to a maximum of 5 acres per family. Up till now 3,84,670.80 acres of land have been settled with 3,19,404 such landless persons.

**(V) Bataidars and Under-raiyats**

The problem of providing security of tenure and fixity of rent to under raiyats and share croppers assumes a greater importance, particularly so in the context of the increasing productivity of land in the wake of various development programmes in the agriculture sector. It is estimated that 40 per cent of the cultivating households are comprised of those who are either wholly or partly under-raiyats or share croppers and they cultivate nearly 23 per cent of the land. Most of them hold land on oral leases and, therefore, are subject to rackrenting and summary eviction. The tenancy Laws as they stand provided occupancy rights to raiyats who hold land for 12 years or more. Even for under raiyats and share croppers the provision of law are sufficiently liberal. During 1955, the law was further amended to provide for fixity of rent and restoration of unlawfully evicted under-raiyats *suo moto* by the Collector. However, the crux of the problem is that the under-raiyats and share croppers continue to be in possession of land by virtue of oral leases and it is extremely difficult for them to enforce the rights provided by law. What is needed is a concerted effort to record the rights of under raiyats and share croppers so that rights conferred by the existing laws are made enforceable. The present procedure for recording such rights is only through the time taking survey and settlement operations, which may take anywhere between 5 to 8 years in a particular district. It is, therefore, necessary to provide for a quicker procedure of recording rights of tenants including under-raiyats. The Bihar Tenant's Rights (Maintenance of Records) Bill, 1973 provides for such a procedure. With enactment of this bill, it will be possible to undertake expeditiously recording of rights of tenants including under raiyats. For this purpose, it will be necessary to strengthen the field staff at various levels from village to district headquarters. Since the funds available for the purpose are limited, it will be necessary to focus attention on selected districts such as Purnea, Saharsa, Champaran, Muzaffarpur, etc. where the problem of under-raiyats and share croppers is most acute. Provision for strengthening of staff at various levels for this and other equally pressing problems is indicated later at appropriate place.

**(VI) Restoration of lands to Adivasis :**

The main problem facing the tribals of Chotanagpur and Santhal Parganas relate to (i) land alienation and (ii) indebtedness.

So far as the problem of alienation of land belonging to the tribal people in Chotanagpur and Santhal Parganas is concerned, it has been engaging the attention of State Government since long. In spite of the fact that restriction on the transfer of land by the Scheduled Tribe existed in all the Tenancy Acts, the Tribal people had been gradually ousted from their land by circumvention of the existing Tenancy laws and other collusive methods. To prevent such collusive alienation and to restore the possession of tribal people of such land the Chotanagpur Tenancy Act was amended in 1969 and the Bihar Scheduled Areas Regulation, 1969 was also enacted. Up till March, 1972, 8,076 cases have been instituted under these two Enactments of which 4,200 had been disposed of and approximately 1,652 acres of land restored to 1,992 persons. The problem is however of a much larger dimension and more intensified efforts are called for.

#### **VII. Tribal Indebtedness :**

The other problem is that of indebtedness among tribals. The tribals, being simple folks, fall easy prey to the ubiquitous money lender who exploits them in every possible way keeping them perpetually below the poverty line. The recent study of the problem has revealed that the rural indebtedness in the tribal areas has reached the figure of 30 crores out of which 8 crores account for the debts of tribe people.—Although there is legislation for restoring to the tribals the land sold by them to non-tribals for debt redemption, the enforcement of those laws has largely been tardy and ineffective. Now in order to alleviate the misery of the rural poverty-stricken people, particularly the tribals, the Bihar Money Lenders (Regulation of Transaction) Act, 1939 is being replaced by a stringent and streamlined law under which the maximum amount which a money lender can realise from a debtor on account of principal and interest shall not exceed double the amount of loan advanced by him. Compulsory registration and redemption of the mortgages within a specified period have been provided.

It is felt that even after the debts are redeemed the problem does not end there. The tribals need credit for their agricultural pursuits for which they would have again to knock the doors of the money lender. Therefore, alternative and easy source of credit has to be found for them so that the incidence of land alienation is reduced to the minimum. Co operative Societies will have to be greatly strengthened and re-oriented. Other financial institutions will have to come forward. In this connection mention may be made of the Tribal Development Corporation as a refinancing body. Meanwhile the State Government will have to continue supplementary line of credit which may be of the order of Rs. 1.50 crore during the Fifth Five-Year Plan period. It is proposed to strengthen the field staff at various levels in Chotanagpur and Santhal Pargana area to enable effective implementation of existing law relating to land alienation and indebtedness.

#### **(viii) Bihar Tenants Holdings (Maintenance of Records) Bill, 1973 :**

There is no system of continuous maintenance of records of rights and bringing them up to date noting all the transactions, transfers, inheritance, etc. The records of rights are prepared on the basis of revisional survey, a time consuming process. In this State Jamabandi (Tenants ledger meant for collection of land revenue) is maintained where entries of all transactions, transfers and inheritance are made. But these records are also not up to date. After the abolition of intermediary interests efforts were made by the Revenue Department to prepare up to date land records through field bujharat and accordingly continuous khatian and tenants ledgers were prepared and are being maintained. But these do not enjoy any legal sanctity. In order to give legal recognition a legislation known as the Bihar Tenants Holdings

(Maintenance of Records) Bill, 1973 is under way. This legislation will provide for compulsory mutation in cases of all changes in the entries in the land record and will also provide for supply of Pass Book to be known as Khat Pustika which would enable the raiyats to obtain loans from financial institutions and State Government. This legislation will also enable expeditious recording of under-raiyats and share croppers without waiting for the completion of long drawn process of Revisional Survey and Settlement.

3. *Land Reform Year 1973-74.*—To provide the take off stage for the Fifth Plan, the State Government has decided to observe the year 1973-74 as the year of land reform implementation. At the same time, as would appear from the foregoing paragraphs, efforts have been made for plugging the gaps and weaknesses in the existing laws to ensure security of tenure, conferment of ownership rights on cultivating tenants, acquisition of surplus lands, reducing the incidence of land alienation and indebtedness.

State Government have accordingly formulated a time-bound programme to achieve these objectives by launching "Land Reform Year 1973-74". Government have instructed that all the land reform measures in hand must be completed by the end of 1973-74.

4. *Operational Programmes :* High priority will continue to be given to the comprehensive programme of preparation and maintenance of up to date records of rights. In this State the survey records of rights are supposed to be prepared after every 25 years. But survey and settlement records are often decades old and the land records maintained by the ex-intermediaries were not up to date. However, survey and settlement operations have been undertaken in different districts of the State details of which are given below :

(i) *Survey Settlement Operation.*—Survey Settlement operations are at present under way in different stage in the districts of Purnea, Singhbhum, Bhojpur, Rohtas, Muzaffarpur, Vaishali, Sitamarhi, Saharsa, Darbhanga, Madhubani, Samastipur, Gaya, Nawadah, Aurangabad and Bhagalpur.

In Purnea, though the final publication has been completed in 1958-59 itself, a large number of post-final publication cases (under amended section 109 of the B.T. Act) remain to be completed. Survey of urban areas and fair rent settlement also remain to be completed.

In Singhbhum district the record of right have been finally published. The survey of the urban areas is in progress and remains to be completed. In Bhojpur and Rohtas districts final publication of the records of rights has been completed and post-final publication cases and urban survey remain to be completed.

In Muzaffarpur, Vaishali and Sitamarhi districts (old Muzaffarpur district) final publication of the records of rights has recently been completed and fair rent settlement, post-final publication cases and urban survey remain to be done.

In Saharsa district nearly three lakhs out of approximately 6.5 lakhs objection petitions still remain to be disposed of after which the record can be made available for final publication.

In Bhagalpur the stage of attestation of records-of-rights has been completed and draft publication and disposal of objections is being taken up. Work in Gaya, Nawadah, Aurangabad (old Gaya district), Darbhanga, Madhubani and Samastipur (Old Darbhanga district) districts, are more or less in the preliminary stages.

The target fixed for the Fourth Plan was to complete all the stages of survey, settlement operations in the districts of Bhojpur, Rohtas, Purnea, Muzaffarpur, Vaishali, Sitamarhi and Singhbhum districts, and to proceed with the operations in the remaining other districts during the Fifth Five-Year Plan. Due to paucity of funds and non-availability of trained officers, the target fixed for the Fourth Plan particularly in respect of Purnea, Singhbhum, Bhojpur, Rohtas, Muzaffarpur, Vaishali and Sitamarhi cannot be achieved and the work will therefore spill over to the Fifth Five-Year Plan period.

The State Government have decided not to take up any further district for survey and settlement operations, Revision of Records-of-Rights in the remaining district will be taken up only with the object of doing consolidation of holdings under the Bihar Consolidation of Holdings and Prevention of Fragmentation Act, 1956. Efforts are also being made to see how best the existing survey settlement operations can be dovetailed with the programme to complete the consolidation of holdings throughout the State within the next five to six years (even so it is unlikely that the existing scale of operations can be reduced to any significant extent till the end of the Fourth Plan). It has been tentatively estimated that a total out-lay of Rs. 253.69 lakhs, i.e. 91.15 lakhs in 1974-75, 74.84 lakhs in 1975-76, 48.96 in 1976-77, 29.74 lakhs in 1977-78 and 12 lakhs in 1978-79 will be required for the completion of survey settlement operations during the Fifth Five-Year Plan period.

(ii) *Consolidation of Holdings.*—The other important operational programme is that of Consolidation of Holdings. It is well known that fragmentation of holdings is one of the serious obstacles to agricultural productivity. This problem has assumed a certain urgency in areas under irrigation.

While consolidation of holdings does not raise any controversial issue of policy and its advantages are widely accepted, the need for consolidation of holdings in this State is also being rapidly recognised. Public opinion is already in its favour and full participation of the people is expected. In the Act of 1956 consolidation was almost restricted to redistribution of plots. There was not much opportunity for complete re-planning of the village. Now importance has been attached to provision of intra-village and inter-village roads and to the reservation of land in each village for objects of common utility, such as Abadi, Schools, Play-ground, Dispensary and other community purposes. Accordingly under the proposed new Act provisions have been made for the same. The details of the scheme right from its beginning are indicated below :—

The programme of Consolidation of Holdings was confined only to *nine pilot blocks at the beginning of the Fourth Five-Year Plan*. 25 blocks in the district of Muzaffarpur, 22 blocks in the district of Shahabad and 11 blocks in the district of Purnea were taken up during the latter half of 1970-71, as per programme envisaged in the Fourth Five-Year Plan. But due to non-availability of trained officers the programme could not be implemented resulting in the short-fall of expenditure, which amounted to Rs. 4.791 lakhs against the total allocation of Rs. 20 lakhs for the annual plan 1970-71. During the year 1971-72, with the deterioration of the financial position of the State Government, cuts were effected in various plan schemes. Even the reduced allocation of Rs. 25 lakhs for the year 1971-72 could not be utilised, the expenditure being at Rs. 15 lakhs only. The non-availability of officers was the main hurdle in extending the programme of consolidation of holdings during the year 1971-72 under the Fourth Five-Year Plan.

The State Government have recently launched a phased programme for consolidation of holdings at a total estimated cost of Rs. 27.20 crores. The district of Shahabad (old), Muzaffarpur (old) and Purnea were taken up towards fag end of the year 1970-71 but the work actually started in 1972-73 due to non-availability of personnel, material, etc. According to the time schedule, Shahabad (old) and Muzaffarpur (old) where up-to-date records-of-rights were available, the work of consolidation was to be completed by the end of 1973-74. In Purnea up-to-date records-of-rights have to be prepared and hence the operation would be completed there by the end of 1977-78.

In the second phase, the district of Saharsa, Bhagalpur, Gaya (old) and Darbhanga (old) have been notified towards the close of the year 1972-73. According to the schedule they are to be completed by 1974-75, for, up-to-date records-of-rights are available there. The third phase would consist of the districts of Patna (old), Champaran (old), Monghyr (old), Saran (old) and Singhbhum beginning from 1974-75 and to be completed by 1979-80, i. e. the first year of 6th Plan period. In the last lap of the programme, the district of Dhanbad, Ranchi, Palamau, Hazaribagh (old), and Santhal Parganas would be taken up in the year 1975-76.

The total allocation required to complete the above programme during the Fifth Plan period comes to Rs. 18.95 crores. But in view of severe financial constraints, it is now proposed to continue the programme during the Fifth Plan period only in those districts which have already been taken up, i. e. Purnea, Shahabad (old), Muzaffarpur (old), Darbhanga (old), Gaya (old), Saharsa and Bhagalpur.

Though according to the previous programme, the work in the districts of Shahabad (old) and Muzaffarpur (old) was to be completed by the end of the current year, i. e., 1973-74, in Purnea by the end of 1977-78 and in the districts of Saharsa (old), Darbhanga (old), Bhagalpur (old) and Gaya (old) by the end of 1974-75, in view of non-availability of officers at block level and shortage of materials, etc., a shortfall in the physical target is unavoidable. The actual work in the districts of Shahabad (old), Muzaffarpur (old) and Purnea was not taken up according to the scheduled programme. As per appraisal of the physical progress of work in these districts, it is found that in Muzaffarpur the consolidation work has not been completed in a single village out of 4,241 villages. In Shahabad (old) it is complete in 35 villages only out of 4,670 villages. In Purnea the work is at the stage of the revision of records-of-rights still, which will go on for two more years. Judging from the pace of achievement, it is not expected that the work in the district of Shahabad (old) and Muzaffarpur (old) would be completed before 1976-77 and in Purnea before 1978-79, the last year of the Fifth Five-Year Plan. The work in the districts of Gaya (old), Darbhanga (old), Saharsa and Bhagalpur has hardly started for want of officers and, therefore, it will take not less than the entire stretch of the Fifth Plan. For the aforesaid reasons, the work in the other districts cannot be taken up according to the phasing of the operations originally visualised.

As per the recast programme for Consolidation of Holdings during the Fifth Five-Year Plan period, the total outlay comes to Rs. 1,150.61 lakhs, with the following year-wise break up :—

		Rs. in lakhs.
1974-75	..	275.61
1975-76	..	275.61
1976-77	..	275.61
1977-78	..	161.89
1978-79	..	101.89
Total	..	<u>1,150.61</u>

5. *Strengthening of the implementation machinery* : For the effective implementation of aforesaid programmes, the Land Reforms machinery in the field requires strengthening at various levels from village to district headquarters. However, in view of the financial constraint, it is proposed to undertake strengthening on a modest scale on a selected area basis. As started earlier, efforts will be concentrated in areas where the problems are most pressing. A provision of Rs. 3,00.00 lakhs will be necessary for the purpose over the Fifth Five-Year Plan.

The work of consolidation of holdings is of a technical nature. The officers and the staff entrusted with the work are expected to possess not only necessary technical knowledge but should also to be familiar with the land tenure system, maintenance of records and soil classification etc. and rural condition generally. It is

apprehended that where directly recruited staff without sufficient training is put on the consolidation work difficulties are bound to be experienced. Therefore, there is provision of training of the officers and staff of the consolidation scheme. A *Consolidation Training Institute* has been started at State Headquarters under the principalship of an officer of the rank of Additional District Magistrate where Consolidation Officers and Kanungos will receive training. Similarly *Consolidation Training Schools* are being started at each *Divisional Headquarters* where training will be imparted to the Amins and other subordinate staff.

6. *People's involvement* : The need for people's involvement in the implementation of the land reforms measure cannot be over-emphasised. With a view to enlist the people's co-operation and to create consciousness among the tenants and landless workers various land reforms implementation committees have been set up at various levels right from the State level to Anchal level. On all these committees apart from the representatives of the tenants and landless labourers various like-minded political parties (who believe in land reforms) are represented on these committees.

7. *Financing of Land Reforms* : A summary of yearwise out lay is indicated below the details of which are furnished in different statements in the Appendix :—

(Rupees in lakhs.)

	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	Total.
(a) Bringing land records up-to-date, preparation of land records, Cadastral Survey etc.	91.15	74.84	46.96	29.74	12.00	253.69
(b) Consolidation of Holdings.	2,75.61	2,15.61	2,75.61	1,61.89	1,61.89	11,50.61
(c) Land Reforms measures (other than Survey and Settlement and Consolidation of Holdings to be undertaken by the Revenue and Land Reforms Department) particularly land reforms relating to tribal areas, recording of tenancies, distribution of surplus land etc.	60.00	60.00	60.00	60.00	60.00	3,00.00
(d) Minimum Needs Programme (Housesites for the homeless).	1,60.00	1,60.00	1,60.00	1,60.00	1,60.00	800.00
Total ..	5,86.76	5,70.45	4,51.57	4,11.63	3,93.89	25,04.30

## STATEMENT I

Fourth Five-Year Plan (1969-74).

Outlays and Expenditure

(Rs. in lakhs)

Heads/Sub-heads.	1969-70		1970-71		1971-72		1972-73		1973-74	
	Appro- ved.	Actual Expen- diture.	Appro- ved.	Actual Expen- diture.	Appro- ved.	Actual Expen- diture.	Appro- ved.	Actual Expen- diture.	Appro- ved.	Actual Expen- diture.
1	2	3	4	5	6	7	8	9	10	11
I. Agricultural and allied programmes—										
(a) Preparation of land records, Cadastral Survey, etc.	..	59.97	80.00	84.20	90.00	90.00	90.00	140.00 (Provi- sional).	90.00	90.00
(b) Consolidation of holdings	..	4.28	20.00	4.78	25.00	14.79	1,54.09*	59.00* (Provi- sional).	2,60.00	2,60.00

\*A sum of Rs. 1,04.09 lakhs for the year 1972-73 and Rs. 2,00.00 lakhs for year 1973-74 outside the Plan Ceiling under Special Employment Programme.

## STATEMENT II

Fifth Five-Year Plan (1974—1979).

Plan Outlays (Annual phasing)

(Rs. in lakhs.)

Heads/Sub-heads.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	Fifth Plan outlays (1974—79).
1	2	3	4	5	6	7
Agricultural and allied programme—						
(a) Bringing land records up-to-date, Preparation of land records, Cadastral Survey, etc.	91.15	74.84	45.96	29.74	12.00	2,53.69
(b) Consolidation of holdings ..	2,75.61	2,75.61	2,75.61	1,61.89	1,61.89	11,50.61
Total .. ..	3,66.76	3,50.45	3,21.57	1,91.63	1,73.89	14,04.30
(c) Land Reforms measures (other than Survey and Settlement and Consolidation of holdings) particularly relating to tribal areas.	60.00	60.00	60.00	60.00	60.00	3,00.00
(d) Minimum needs programme (House- sites for the homeless).	1,60.00	1,60.00	1,60.00	1,60.00	1,60.00	8,00.00
Total .. ..	2,20.00	2,20.00	2,20.00	2,20.00	2,20.00	11,00.00
<b>GRAND TOTAL</b> .. ..	<b>5,86.76</b>	<b>5,70.45</b>	<b>5,41.57</b>	<b>4,11.63</b>	<b>3,93.89</b>	<b>25,04.30</b>



## STATEMENT III

Lists of Schemes/Projects/Programme included in the Plan.

(Fifth Five-Year Plan.)

(Rs. in lakhs.)

Heads/Sub-heads.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	Fifth Plan outlays (1974-79).
1	2	3	4	5	6	7
<b>I. Agricultural and allied programme—</b>						
<b>(a) Bringing land records up-to-date—</b>						
(i) Spill over schemes ..	91.15	74.84	45.96	29.74	12.00	2,53.69
(ii) New schemes ..	Nil	Nil	Nil	Nil	Nil	Nil
<b>Total ..</b>	<b>91.15</b>	<b>74.84</b>	<b>45.96</b>	<b>29.74</b>	<b>12.00</b>	<b>2,53.69</b>
<b>(b) Consolidation of Holdings—</b>						
(i) Spill over schemes ..	2,75.61	2,75.61	2,75.61	1,61.89	1,61.89	11,50.61
(ii) New schemes ..	Nil	Nil	Nil	Nil	Nil	Nil
<b>Total ..</b>	<b>2,75.61</b>	<b>2,75.61</b>	<b>2,75.61</b>	<b>1,61.89</b>	<b>1,61.89</b>	<b>11,50.61</b>
<b>(c) Land Reforms measures (other than Survey Settlement and Consolidation of Holdings) particularly relating to tribal areas—</b>						
(i) Spill over schemes ..	Nil	Nil	Nil	Nil	Nil	Nil
(ii) New schemes ..	60.00	60.00	60.00	60.00	60.00	3,00.00
<b>Total ..</b>	<b>60.00</b>	<b>60.00</b>	<b>60.00</b>	<b>60.00</b>	<b>60.00</b>	<b>3,00.00</b>
<b>(d) Minimum needs programme (House-sites for the homeless)—</b>						
(i) Spill over schemes ..	Nil	Nil	Nil	Nil	Nil	Nil
(ii) New schemes ..	1,60.00	1,60.00	1,60.00	1,60.00	1,60.00	8,00.00
<b>Total ..</b>	<b>1,60.00</b>	<b>1,60.00</b>	<b>1,60.00</b>	<b>1,60.00</b>	<b>1,60.00</b>	<b>8,00.00</b>

## STATEMENT IV

## Employment Potential.

Heads/Sub-heads.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	Fifth Plan outlays (1974-79).
1	2	3	4	5	6	7
<b>I. Agricultural and allied Programme—</b>						
<b>(a) Bringing land records up-to-date—</b>						
(i) Administrative .. ..	372	372	372	372	372	..
(ii) Technical .. ..	113	113	113	113	113	..
(iii) Skilled .. ..	5	5	5	5	5	..
(iv) Unskilled .. ..	1,760	1,760	1,760	1,760	1,760	..
<b>TOTAL .. ..</b>	<b>2,250</b>	<b>2,250</b>	<b>2,250</b>	<b>2,250</b>	<b>2,250</b>	<b>.</b>
<b>(b) Consolidation of Holdings—</b>						
<b>(i) State level—</b>						
Administrative .. ..	31	31	31	31	31	..
Skilled .. ..	Nil	Nil	Nil	Nil	Nil	..
Unskilled .. ..	7	7	7	7	7	.
<b>TOTAL .. ..</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>.</b>
<b>(ii) District level—</b>						
Administrative .. ..	63	63	63	45	45	.
Skilled .. ..	10	10	10	10	10	.
Unskilled .. ..	42	42	42	30	30	.
<b>TOTAL .. ..</b>	<b>115</b>	<b>115</b>	<b>115</b>	<b>85</b>	<b>85</b>	<b>.</b>
<b>(iii) Block level—</b>						
Administrative .. ..	4,066	4,066	4,066	2,565	2,565	.
Skilled .. ..	3,510	3,510	3,510	2,404	2,404	.
Unskilled .. ..	1,622	1,622	1,622	1,069	1,069	.
<b>TOTAL .. ..</b>	<b>9,198</b>	<b>9,198</b>	<b>9,198</b>	<b>6,038</b>	<b>6,038</b>	<b>.</b>

Administrative—Offices + Kanungo + Office Staff.  
 Skilled—Survey Inspector + Draftsman and Amins.  
 Unskilled—Peons + Chowkidars.

**STATEMENT V**  
**FIFTH FIVE-YEAR PLAN**  
**Annexure I.**

Items.	1974-75	1975-76	1976-77	1977-78	1978-79	
1	2	3	4	5	6	
gricultural and allied programme.—						
(a) Preparation of Land Records and Surveys.						
(b) Consolidation of Holdings.	Old Shahabad Old Muzaffarpur Purnea Saharsa Bhagalpur Old Gaya Old Darbhanga	41 Blocks 38 Blocks 38 Blocks 23 Blocks 18 Blocks 16 Blocks 44 Blocks	Same as in col. 2.	Same as in col. 2.	Purnea Saharsa Bhagalpur Old Gaya Old Darbhanga	41 Blocks 38 Blocks 18 Blocks 16 Blocks 44 Blocks
		248 Blocks			199 Blocks	

(1) Yearly Phasing of Physical Programme.			(1) Bringing Land Records up-to-date.		
1974-75	1975-76	1976-77	1977-78	1978-79	
1	2	3	4	5	6
Shahabad ..	1. Disposal of Post-settlement cases.	1. Disposal of Post-settlement cases.	..	..	..
	2. Urban Survey	2. Urban Survey	..	..	..
Gaya ..	1. Hearing of objection.	1. Hearing of Objection.	1. Final Publication	1. Urban survey ..	1. Winding of operations.
	2. Janch, Safai and Mokabilla.	2. Janch, Safai and Mokabilla.	2. Urban Survey ..	2. Disposal of Post-settlement cases.	
	3. Final Publication	3. Final Publication	3. Disposal of Post-settlement cases.	3. Deposit of records in the Collectorate record-room.	
	4. Urban Survey ..	4. Urban Survey ..	..	..	
	5. Fixation of rent	5. Fixation of rent	..	..	..
Bhagalpur ..	1. Hearing of objection and revision.	1. Urban Survey ..	1. Urban Survey ..	1. Deposit of records in the Collectorate record-room.	
	2. Janch, Safai and Mokabila.	2. Fixation of rent	2. Fixation of rent	2. Winding of operation.	
	3. Final Publication	3. Disposal of Post-settlement cases.	3. Disposal of Post-settlement cases.	..	..
	4. Urban Survey	..	..	..	..

(1) Yearly Phasing of Physical Programme.			(1) Bringing Land Records up-to-date.			
		1974-75	1975-76	1976-77	1977-78	1978-79
1	2	3	4	5	6	
4. Saharsa	..	1. Hearing of objection.	1. Final Publication	1. Urban Survey ..	1. Disposal of Post-settlement cases.	Winding up operations.
		2. Janch, Safai and Mokabila.	2. Urban Survey ..	2. Fixation of rent	2. Deposit of records in the Collectorate record-room.	..
		3. Final Publication	3. Fixation of rent	3. Disposal of Post-settlement cases.	..	..
		4. Urban Survey ..	4. Disposal of Post-settlement cases.	4. Deposit of records in the record room.	..	..
5. Purnea	..	1. Urban Survey ..	..	..	..	..
		2. Winding up operations.	..	..	..	..
6. Muzaffarpur	..	1. Disposal of Post-settlement cases.	1. Disposal of Post-settlement cases.	..	..	..
		..	2. Deposit of records in the Collectorate record-room.	..	..	..
7. Darbhanga	..	1. Hearing of objection.	1. Hearing of objection.	1. Final Publication	1. Urban Survey ..	1. Deposit of records in the Collectorate records-room.
		2. Janch, Safai and Mokabila.	2. Janch, Safai and Mokabila.	2. Janch, Safai and Mokabila.	2. Disposal of Post-settlement cases.	2. Winding up operations.
		3. Final Publication	3. Final Publication	3. Urban Survey	..	..
		4. Urban Survey ..	4. Urban Survey ..	..	..	..
		..	5. Fixation of post	..	..	..
		..	6. Disposal of Post-settlement cases.	..	..	..
8. Singhbhum	..	1. Urban Survey ..	..	..	..	..
		2. Winding up operation.	..	..	..	..

## L. R.

## PRO FORMA I.

1. Name of State—Bihar.

2. Year in which legislative measures enacted (with title of the Act)—1956. The Bihar Consolidation of Holdings and Prevention of Fragmentation Act, 1956.

## PROGRESS OF CONSOLIDATION OF HOLDINGS.

(000' Hectares.)

Serial no.	Year.	Total geographical area.	Sown Area.	Area fit for consolidation.	Area consolidated.		Remarks.
					During the year.	Total to end of the year during the Five-Year Plan period.	
1	2	3	4	5	6	7	8
1	1968-69	.. ..	1,73,30	83,25	132,80	..	99
2	1969-70	.. ..	1,73,30	83,96	132,80	..	99
3	1970-71	.. ..	1,73,30	84,54	132,80	3	102
4	1971-72 (actual)	.. ..	1,73,30	N.A.	132,80	36	138
5	1972-73 (likely)	.. ..	1,73,30	N.A.	132,80	18	156
6	1973-74 (anticipated)	.. ..	1,73,30	N.A.	132,80	1,671	1,827

## L. R.

## PRO FORMA II.

Name of State—Bihar.

## CONSOLIDATION OF HOLDINGS OUTLAY AND EXPENDITURE.

Serial no.	Year.	Amount.	Remarks.
1	2	3	4
1	Fourth Plan .. ..	394,54,000	Total approved outlay ..
2	1969-70 to 1971-72 .. ..	26,07,000	Actual expenditure ..
3	1972-73 .. ..	17,00,000	Expenditure (Provisional)
4	1973-74 .. ..	260,00,000	Anticipated expenditure
5	Fourth Plan .. ..	303,07,000	Total likely/anticipated expenditure.
6	Fifth Plan .. ..	11,50,61,000	Outlay ..

## L. R.

## PRO FORMA III

Name of State—Bihar.

## DISTRIBUTION OF SURPLUS LAND—IMPOSITION OF CEILING.

(In acres.)

Year.	Area available during the year.	Additional area likely to be available (new Ceiling).	Area taken possession of		Area distributed.								
			During the year.	Total so far.	Scheduled Castes				Scheduled Tribes.				
					During the year.	Total so far.	During the year.	Total so far.	During the year.	Total so far.	During the year.	Total so far.	
1	2	3	4	5	6	7	8	9	10	11	12	13	
1. 1969-70 (Actual)	..	..	..	..	..	..	..	..	..	..	..	..	..
2. 1970-71 (Actual)	..	..	..	..	..	..	..	..	..	..	..	..	..
3. 1971-72 (Actual)	4,936	}	N.A.	770 acres have been distributed so far.	..	..	..	..	..	..	..	..	..
4. 1972-73 (Actual)	3,924				..	..	..	..	..	..	..	..	..

N.B.—A total area of 5 lakhs acres is likely to become available after the implementation of Ceiling law (area).

## L. R.

## PRO FORMA IV.

Name of State—Bihar.

## PREPARATION OF RECORDS-OF-RIGHTS.

Year.	No. of Districts.	Up-to-date records of-rights available (No. of districts) old.		Up-to-date records-of-rights under preparation (No. of old.)	Remarks.
		Prepared during the year.	Total Prepared so far.		
1	2	3	4	5	6
1969-70	..	8	2 (Part)	2 (Full)	6 (Part)
1970-71	..	8	2 (Part)	4 (Full)	4 (Part)
1971-72	..	8	..	4 (Full)	4 (Part)
1972-73	..	8	..	4 (Full)	4 (Part)
1973-74	..	8	..	4 (Full)	4 (Part)
					The Records of the remaining four districts although ripe for final publication are not living finally published as these records are to be taken for Consolidation of Holdings under the Consolidation of Holdings Programme for which Draft published records are needed.

## L. R.

## PRO FORMA V.

Name of State—Bihar.

## SURVEY AND SETTLEMENT OPERATIONS INCLUDING PREPARATION OF RECORD-OF-RIGHTS.

Serial no.	Year.		Amount (in lakhs).	Remarks.
1	2		3	4
1	Fourth Plan	.. ..	Total approved outlay	3,64.45
2	1969-70 to 1971-72	.. ..	Actual expenditure	2,44.00
3	1972-73	.. ..	Expenditure (Provisional)	1,40.00
4	1973-74	.. ..	Anticipated expenditure	1,22.00
5	Fourth Plan	.. ..	Total likely/anticipated expenditure.	5,06.00
6	Fifth Plan	.. ..	Outlay	2,53.69



## CHAPTER IV

### MINOR IRRIGATION.

Minor Irrigation Schemes are executed by three types of Agencies in this State. First, there is the Minor Irrigation Wing in the Agriculture Department. Secondly, the Irrigation Department also executes certain categories of minor irrigation schemes such as flow schemes, diversion weirs, small dams and reservoirs these schemes are executed under the provision of the Bengal Irrigation Act, 1876 and the Bihar Public Irrigation and Drainage Works Act, 1947. These schemes are so designed as to utilise the water resources available through small rivers and rivulets and to give irrigation facilities to the Cultivators. Lastly, certain categories of irrigation schemes like S. P. Wells, ahars, pynes, bundhs, hand tube-wells etc., are executed through the Block agencies.

*Agriculture Department.*—The Minor Irrigation Wing of the Agriculture Department is the main agency for executing the schemes. The total progressive irrigation potential which is supposed to have been created so far with the execution of various minor irrigation schemes since 1951 is about 43 lakh acres. The irrigation potential created by the Minor Irrigation Department is through schemes like tube-wells, dug wells bamboo borings, cavity borings, minor ahars, pynes and bundhs, and some bigger M. I. schemes. Most of these schemes have since outlived their utility. There has been, therefore, considerable depreciation of the irrigation potential. On the basis of actual performance and the existing condition of different minor irrigation schemes, the depreciation during last 22 years *i. e.*, from 1951 is as follows:—

	Per cent.
1. State tube-wells ..	32
2. Private tube-wells ..	8
3. Pumps ..	69
4. Dug wells ..	85
5. Cavity borings ..	30

All the bigger medium irrigation schemes as well as the minor ahars, pynes and bundhs have been executed under the Bihar Private Irrigation Works Act, 1922. There is so far no satisfactory arrangement for their proper maintenance. In view of this the depreciation in irrigation potential created by the bigger minor irrigation schemes and by the ahars, pynes etc., has been assumed to be of the order of 80 per cent. The over-all depreciation works out to 68 per cent. The irrigation potential actually available at the commencement of the Fifth Five-Year Plan has been estimated to be of the order of 20.82 lakh acres.

*Hydrology and condition.*—The surface water resources within the State has been roughly estimated at 536 lakh acre ft., and the sub-surface water resources of the order of 270 lakh acre ft., The North and South Bihar plains have generally good ground water resources. The Chhotanagpur plateau is generally unsuitable for tube-wells. Big diameter percolation wells are possible in the valleys of the plateau area.

*The Fourth Plan Experience.*—During the Fourth Five-Year Plan, the outlay was of the order of Rs. 5,400 lakh, out of which Rs. 800 lakh were allotted to the Irrigation Department. The Agriculture Department had, therefore, an outlay of Rs. 4,600 lakh. The anticipated expenditure during the Fourth Plan period will be Rs. 3,437 lakh (inclusive of the expenditure incurred by the Blocks).

With an outlay of Rs. 4,600 lakh it was originally estimated that the irrigation potential of the order of 20.30 lakh acres would be created during the Fourth Plan period. Due to non-availability of funds, the actual allocations have fallen short of the original outlay. It is now estimated that the additional irrigation potential would be of the order of 9.43 lakh acres. A sizeable short fall is, therefore, feared. This is partly due to increase in the unit cost of providing minor irrigation on one hand and adoption of realistic norms of irrigation to be expected from different kinds of schemes on the other.

In Chhotanagpur and Santhal Parganas area, which has lagged behind in irrigation facilities, big diameter wells have proved to be very popular. In order to provide irrigation facilities in North Bihar, sinking of private tube-wells and bamboo borings have been under taken on a large scale. These schemes are being financed from institutional sources like A. R. C. A. F. C., Land Development Bank etc.

An Emergency Agricultural production programme was started to fight the drought during 1972-73 with loan assistance of Rs. 1,772.78 lakh (outside the plan from the Government of India). About 750 State Tube-wells, 400—500 E.R. P. Sets and 5,000 bigger diameter wells are proposed to be installed, creating additional irrigation potential of 3.47 lakh acres. In the Drought-prone areas of Jamui, Palamau, Nawadah, Sasaram and Bhabua areas centrally-sponsored schemes of the construction of reservoirs and lift irrigation schemes have been taken up. These schemes are likely to create an additional irrigation potential of 0.37 lakh acres. Special Employment Schemes for the construction of 4,300 large diameter wells were taken up during the year 1972-73. at an estimated outlay of Rs. 516 lakh. This programme is likely to create an additional Irrigation Potential of 0.25 lakh acres.

Even after completing the aforesaid scheme, the utilisation of the available ground resources will be less than 20 per cent.

#### PROGRAMME DURING THE FIFTH FIVE-YEAR PLAN.

The main programmes are as under:—

- |  |    |        |
|--|----|--------|
| (1) Development of ground water resources through— |    |        |
| (a) State Tube-wells                               | .. | 2,500  |
| (b) Private Tube-wells                             | .. | 25,000 |

(c) Open borings	..	40,000
(d) Large diameter wells	...	12,500

- (2) Investigation and exploitation of ground water resources for planned and large scale development of the resources in future.
- (3) Spill-over schemes will be completed utilising surface water resources.
- (4) Greater emphasis has been given for development of irrigation potential in Chhotanagpur and Santhal Parganas areas.

It is proposed to create additional irrigation potential of 14.58 lakh acres during the Fifth Plan.

#### FIFTH PLAN OUTLAY.

The total outlay envisaged for Irrigation Schemes of Agriculture Department is of the order of Rs. 14.850 lakh, out of which Rs. 8,500 lakh will be in State Sector and the remaining Rs. 6,350 lakh will be arranged from institutional sources. The outlay proposed for the backward area in Rs. 2,389 lakh.

*Employment potential.*—The outlay is likely to create employment potential of 37.50 lakh mandays for skilled labour and 712.50 lakh mandays for un-skilled labour.

*Irrigation Department Minor Irrigation.—The Fourth Plan Experience.*—The Fourth Plan outlay for this Department was Rs. 800 lakh out of which the expenditure during the Fourth Plan is likely to be Rs. 561.63 lakh. It is expected that the irrigation potential created by the minor irrigation schemes of the Irrigation Department would be the tune of 160 thousand hectares by the end of the Fourth Plan.

*The Fifth Plan Programme and outlay.*—An outlay of Rs. 1,500 lakh has been visualised during the Fifth Plan. The spill-over schemes have been given the first preference. Spill-over schemes will be flow schemes, drainage schemes, pumping sets along river Ganga and Burhi Gandak and water-courses in completed schemes. The new schemes visualised are construction of water-courses, drainage of chours and construction of new dams and reservoirs. In selecting new schemes the needs of the tribal area and drough-prone areas have been kept in view. It is proposed to spend 600 lakhs in the tribal area and Rs. 300 lakh in the drought-prone areas. These new programmes envisage creation and utilisation of additional irrigation potential of 35 thousand hectares, making a total irrigation potential of 195 thousand hectares by the end of the Fifth Plan.

#### COMMUNITY DEVELOPMENT DEPARTMENT

Execution of minor irrigation schemes costing up to Rs. 10,000 was transferred to the Community Development Department and the allocations for this purpose were made from December 1970. The outlay of the Community Development Department was fixed at Rs. 373 lakh. The anticipated expenditure during the Fourth Plan is 436.72 lakh, out of which Rs. 127.40 lakh is likely to be spent in tribal area. Execution of minor schemes like S. P. wells, ahars, pynes and hand tube wells

is done by farmers in Block areas. Rahats are also distributed for lifting water from wells in areas where electricity is not available. In all these the element of subsidy ranges from 25 per cent to 50 per cent.

*The Fifth Plan target and outlay.*—Rs. 500 lakh has been provided for minor schemes of the Community Development Department. It is proposed to construct 15,000 wells and distribute 3,000 rahats. It is proposed to renovate 2,335 ahars, pynes and bundhs and sink 20,000 tube-wells. For the backward area, an outlay of Rs. 135 lakh has been proposed during the Fifth Plan.

Thus the, total outlay proposed on Minor Irrigation comes to Rs. 1,05,00 lakh.

## CHAPTER V

### SOIL AND WATER CONSERVATION

The Chotanagpur plateau region and the sloping lands of South Bihar lying between the plateau and the plains are subject to serious soil erosion. The erosion from the sloping uplands as well as from forest lands has been going on for years resulting in depleted fertility and consequent loss of yield from agricultural as well as forest crops. A number of irrigation projects have been constructed by Irrigation and River Valley Projects Departments. There is continued soil erosion in the catchment of these projects resulting in the siltation of the reservoirs and canals at an alarming rate jeopardising the very useful life of these projects e. g., D. V. C., Mayurakshi, Tenughat Dam Project and Kosi canals, etc., In some of the sub-catchments of these projects the siltation rate is three to four times higher than the designed rate. On a rough estimate it has been computed that about 48 lakh acres of agricultural and waste lands and 10 lakh acres of forest lands totalling 58 lakh acres representing about 14 per cent of the total land area of the State require urgent soil conservation measures. In the Gangetic plain area, the irrigation potential created by major irrigation projects like the Kosi, Gandak and Sone has remained grossly under-utilised mainly due to lack of water courses and field channels, drainage, land levelling and land shaping of undulating lands.

#### Fourth Plan Experience

2. A separate Directorate of Soil Conservation was created in December, 1968 and was entrusted with the responsibility of formulating and executing the Soil Conservation Programmes in the State. The position of the different programmes taken up along with targets and achievements is indicated below.

3. *Soil Conservation Survey and Plan.*—The target for the Fourth Plan is to survey 12 lakh acres (480 thousands hectares) of lands at an estimated cost of Rs. 24.00 lakh. During first three years 7.6 lakh acres (304.90 thousand hectares) of lands were surveyed at a total cost of Rs. 13.50 lakh. It is anticipated that an additional area of 3.1 lakh acres (125 thousand hectares) will be surveyed by the end of the Fourth Plan at a total cost of Rs. 7.00 lakh.

4. *Soil Conservation works on Watershed basis.*—Under this scheme, 55 watersheds were selected on priority basis, each having an area of nearly 30 to 40 thousand acres. Integrated Soil and Water Conservation and Land Development works are planned and executed within these watersheds to accomplish treatment by the end of Fourth Plan. The Fourth Plan target under this scheme is to treat 1.72 lakh acres (68,400 hectares) of agricultural and gullied lands with soil conservation measures and to construct 550 silt detention dams in the 55 selected watersheds at a total cost of Rs. 149.00 lakh. By the end of 1972-73 i.e., fourth year of the Fourth Plan, treatment of 1.41 lakh acres of lands and construction of 629 silt detention dams will be completed at a cost of Rs. 120.34 lakh. It is expected that the target of treatment of 0.31 lakh acres of lands and financial outlay of Rs. 28.66 lakh will be achieved during 1973-74.

5. *Reclamation of waste land by manual labour.*—Reclamation of Government waste lands is a part of land development works in the selected watersheds and outside as well with construction of Soil and Water Conservation structures. The Government waste lands reclaimed under this scheme are settled with landless agricultural workers belonging to Scheduled Castes and Scheduled Tribes. Rs. 50.25 lakh is allocated in the Fourth Plan to reclaim 55,000 acres (22,000 hectares) of culturable waste lands.

During the first three years of the plan, i.e., 1969 to 1972, 12,725 acres (5,090 hectares) of these lands were reclaimed at a cost of Rs. 15.95 lakh. During 1972-73 the target is to reclaim 7,000 acres (2,800 hectares) at a cost of Rs. 10.00 lakh and for 1973-74 it is 9,900 acres (4,000 hectares) at a cost of Rs. 11 lakh. The desired results are not being achieved due to restricted availability of free Government waste lands as these are mostly encroached. These lands are widely scattered and do not lie in sizeable blocks.

6. *Rehabilitation of landless agricultural labourers.*—The reclaimed Government waste lands are settled with the landless agricultural workers belonging to scheduled castes and scheduled tribes etc. Assistance is given to the settlees in the shape of seed, manures, fertilizers, implements and bullocks up to a maximum of Rs. 750 per family to facilitate them to cultivate the settled lands in the initial stage. There is an outlay of Rs. 4.75 lakh for rehabilitation of 633 landless agricultural families during Fourth Plan period. During the first three years of the plan period, 158 landless families were given assistance of Rs. 1.90 lakh for rehabilitation. The progress of this scheme has not been encouraging for a variety of reasons. However efforts are being made to extend these facilities to the remaining 475 families at a cost of Rs. 2.85 lakh.

7. *Scheme for land levelling and land shaping in Kosi Command.*—The scheme of land levelling and land shaping has been taken up in the Kosi Command area of the districts of Saharsa and Purnea, for increasing the utilisation of water of Kosi Canals. This scheme has been taken up with the assistance of the Agricultural Refinance Corporation. Under this scheme loans to the farmers for purchase of tractors with land levelling attachments are advanced by the Land Development Bank. Loans are also sanctioned by the Land Development Bank for purchase of bullock drawn kurels and also for getting their lands levelled by the tractors of the State Tractor Organisation. The State Government contributes 25 per cent towards the purchase of debentures floated by the Land Development Bank. The rest 75 per cent is contributed by Agricultural Refinance Corporation. Out of the total financial outlay during Fourth Plan of Rs. 155.00 lakh under this scheme Rs. 38.75 lakh will be contributed by the Soil Conservation Department on behalf of the State Government and the balance of Rs. 116.25 lakh by Agricultural Refinance Corporation. 2.76 lakh acres of land are expected to be levelled under this scheme through different agencies. The Tractor Organisation under the Soil Conservation Department has been strengthened during the Fourth Plan period with a Soil Conservation Division under the charge of a Deputy Director, Land Development at Purnea. The strength of the tractors has been raised to 33 which is expected to reach 60 (sixty) by the end of Fourth Plan. A sum of Rs. 26.01 lakh has been allocated for strengthening the Tractor Organisation. The Tractor Organisation will reclaim and level 0.15 lakh acres of lands by the end of Fourth Plan. It has already covered an area of 0.06 lakh acres through ploughing and land levelling.

The scheme has not progressed as planned, the reason being that the supply of tractors was far behind the requirement. The procedure for giving loan by the Land Development Bank needs to be simplified. Farmers are shy of large investment in view of the contemplated programme of consolidation of holdings.

8. *Soil Conservation Research.*—The existing Soil Conservation Research Farm at Masipiri in Hazaribagh and a sub-centre at Jalalgarh in Purnea was strengthened with acquisition of 150 acres of land at Demotanr, Hazaribagh from the Forest Department. This section functions under the charge of a Deputy Director, Soil Conservation Research at Hazaribagh and with an Assistant Agronomist at Jalalgarh. The Section is engaged in investigation, study and development of suitable Soil Conservation practices for the State. The farms at Masipiri and Demotanr in Hazaribagh have been set up to take up research work on problems relating to Soil and Water Conservation on watershed basis under rainfed condition of the plateau and

sub-plateau regions of Chotanagpur and South Bihar. With the assistance of USAID expert a master plan has been prepared for lay-out, instrumentation and development of the farm into an ideal research station. Jalalgarh Sub-centre is being developed for Soil and Water management studies under irrigated conditions in command area of irrigation project. A sum of Rs. 5.00 lakh has been provided for research during the Fourth Plan, out of which Rs. 2.71 lakh has been utilized till 1972-73.

9. *Soil conservation Training.*—Four Officers have been trained abroad under USAID and Colombo Plan. Seven Officers were deputed for training at Government of India Soil Conservation Training Research and Demonstration Centres. Four more officers have been earmarked for training at Officer's training centres. The training of Assistant Soil Conservation Officers and Agricultural Inspectors is imparted at Government of India Training Centres for Soil Conservation Assistants. So far eighty-five officers have been trained. Further forty-five such officers will be trained at these centres by the end of Fourth Plan. A Sub-assistants (field supervisors) Training Centre, is located at Hazaribagh under the Deputy Director, Soil Conservation, Research, 60 such persons have been trained. The training of Engineering graduates employed under the Rural Engineering Survey Scheme is being given at Hazaribagh since 1972-73. So far twenty-two engineering graduates have been trained and the training of seventy-eight will be completed by the end of Fourth Plan. There is a provision of Rs. 3.00 lakh in the Fourth Plan, out of which Rs. 0.70 lakh has been spent by the middle of 1972-73.

#### **Deficiencies of the Fourth Five-Year Plan.**

10. The analysis of achievements & shortfalls of Fourth Plan Programmes reveals the following deficiencies which need to be attended to :—

- (i) Soil survey is a basic need for an effective soil and water conservation programme. A suitable Soil Survey Organisation is necessary for the success of erosion control measure and conservation farming. A cartography section is also required for such an organisation.
- (ii) Soil Conservation Schemes have so far been almost entirely a Government sponsored programme. Conservation farming has not yet caught the imagination of farmers at large. It is felt that demonstrations should be conducted at fairly large scale on lands treated with soil and water conservation measures to popularise conservation farming practices.
- (iii) Difficulties have been felt in execution of soil and water conservation programmes of the recalcitrant farmers, who do not agree to take up these measures on their lands. Soil and Water Conservation and Land Development Act has already been enacted. These difficulties are likely to be overcome with the enforcement of this Act during the Fifth Plan. Maintenance and repairs of soil conservation structures have so far remained neglected. This can be now made the responsibility of the farmers under the provisions of this Act.
- (iv) Different types of soil and water conservation schemes have been executed but so far there has been no programme to evaluate their effectiveness. An valuation will show if and what modifications in the programmes are necessary and which of the programmes could be given up if the benefits therefrom are not commensurate with the cost involved.

### Objectives and Programmes for the Fifth Plan.

11. The main objectives of soil and water conservation programmes will be as noted below :—

- (i) To increase the productivity of land of rainfed areas and ward off droughts.
- (ii) To minimise the rate of siltation of reservoirs of River Valley Projects to increase their useful life-span.
- (iii) To increase the utilisation of irrigation potential of irrigation projects.
- (iv) To uplift the economic condition of Tribal and Backward classes of backward regions.
- (v) To provide wage and self-employment to rural population.

Within the over-all constraints of financial resources, the programmes for the Fifth Plan have been so formulated as to achieve the objectives enumerated above. The following programmes are proposed to be taken up during the Fifth Plan:—

- (i) Soil and Water Conservation measures in rainfed areas.
- (ii) Soil Conservation measures in the catchment of Irrigation Projects/Dams.
- (iii) Soil and Water Management Practices in the command areas of Irrigation Projects.
- (iv) Survey, Investigation and Planning of Soil Conservation Schemes.
- (v) Soil and Water Conservation Research and demonstration.
- (vi) Soil Conservation training.
- (vii) Strengthening of Organisation.

12. *Soil and Water Conservation measures in rainfed areas.*—The watershed approach started during the Fourth Plan period will be continued. However, planning and execution of works will be done on a mini-water-shed basis so that proper attention is given to every plot of land. Since surface run-off is the main problem of the undulating lands of Chotanagpur and South Bihar, besides bunding and terracing, which have been the main programme, terracing will be done accompanied with inter-terrace levelling. Where the depth of soil is good bench terracing will generally be done. This will enable maximum conservation of rain water. The run-off from the terraces will be caught in small dams to be constructed down below. This will reduce sediment outflow and conserve water. A Programme of this nature will, in due course, improve the water regime of the area and enable adoption of dry farming practices. Small storage reservoirs will also provide supplemental irrigation. It is proposed to treat 0.70 lakh hectares, (1.76 lakh acres) of lands and to construct 700 small dams at an estimated cost of Rs. 350 lakh during the Fifth Plan.

13. *Soil Conservation measures in the catchment of Irrigation Projects/Dams.*—A number of irrigation Projects/ Dams have been constructed in the plateau and Sub-plateau regions of the State by the State Irrigation Department like Badua, Chandan, Getalsud, Nagi, Morway and Bhourabundh, etc. Protection of the catchment areas of these projects against soil erosion is essential to reduce the rate of sediment



in flow in the reservoirs to enhance their useful life. Erosion control measures like construction of graded and retention terraces, inter-terrace levelling, gully control measures and conversion of gullied lands into paddy fields have been proposed. However, the emphasis will be on construction of large number of silt detention and check dams. An outlay of Rs. 100 lakh has been provided for treatment of 0.20 lakh hectares (0.50 lakh acres) of lands and to construct 290 aforesaid dams.

14. *Soil and Water Management Practices in Command areas of Irrigation Projects.*—The utilization of Irrigation potential created in the Kosi and Gandak Command areas has been very low. In the command areas of these irrigation projects modern technique of soil and water management will be adopted, These practices will be implemented as a package programme and will provide for construction of properly aligned irrigation channels, land levelling, land shaping, field drainage, suitable cropping pattern and correct application of irrigation water. As far as possible the work will be carried in a concentrated manner in the command areas of water courses. Buried pipe lines for conveyance of irrigation water will also be adopted in the command areas of tube-wells. Technical plans for undertaking these programmes will be prepared after conducting proper survey of the lands. Some farmers will carry out the Programme prepared by the Department, out of their own funds. Some farmers, who will require loans will be helped to obtain it from institutional sources. Such measures will be undertaken in about 0.53 lakh hectares (1.33 lakh acres) with an outlay of Rs. 400.00 lakh during the Fifth Plan.

15. *Survey, Investigation and Planning of Soil Conservation Schemes.*—The entire programme of soil and water conservation will be planned and executed after proper soil-survey. Based on the survey, lands will be classified according to their capability and those fit for sustained economic agriculture will receive treatment for agricultural use. In the hilly region large areas are available which, though privately owned, are not fit for economic agriculture. Under the principles of correct land use such areas will have to be put under grassland or forestry. After survey the Forest Department will be furnished with a list of such areas so that they can undertake forestry and grassland development programme. Areas which are less than 50 acres and are scattered in small patches will be put under farm forestry and pasture development by the Soil Conservation Department through extension agency. 0.90 lakh hectares (2.25 lakh acres) of lands will be treated in the plateau and sub-plateau regions for rainfed and catchment areas of irrigation Projects/dams. 1.20 lakh hectares (3.00 lakh acres) of lands have been proposed to be treated with soil conservation measures in the catchment areas of River Valley Projects. Soil and Water Management Programme will be undertaken in another 0.53 lakh hectares (1.33 lakh acres) during Fifth Plan period. Besides these 0.56 lakh hectares (1.40 lakh acres) of lands will be treated under the Drought Prone Areas and Special Employment Programmes). This will mean that 0.64 lakh hectares (1.60 lakh acres) of lands will be treated annually under different programmes mentioned above. This requires survey, investigation, preparation of projects and planning of schemes in advance so that ready schemes are available each year in advance to start execution of the work without any time lag. An outlay of Rs. 60.lakh is proposed under this scheme during Fifth Plan Period.

16. *Soil and Water Conservation Research and Demonstration.*—Soil conservation schemes so far have been carried out on empirical basis. There is need to evolve economic and effective treatment which could be given to various types of lands suffering from the evils of soil erosion. This could be done only by undertaking intensive work on soil conservation. At the same time it is important to conduct studies of cost and benefits from these schemes. As soil conservation schemes require heavy investment both in terms of man power and finance, it is important to study this aspect to convince not only the formers on whose lands the schemes are to be undertaken but also others.

The farms at Massipiri and Demotanr in Hazaribagh are being developed for taking up problems relating to soil and water conservation on watershed basis and under rainfed conditions of the plateau and sub-plateau regions of Chotanagpur and South Bihar. For Soil and Water Management Problems under irrigated conditions in the command areas of irrigation projects, Jalalgarh in the district of Purnea is being developed as a research sub-centre. An outlay of Rs. 10.00 lakh has been provided under this programme during the Fifth Five-Year Plan.

17. *Training of personnel for Fifth Plan.*—It is proposed that all personnel at different levels engaged in different soil and water conservation programmes are trained. Facilities for training of officers and Assistant Soil Conservation Officers exist at Soil Conservation Training Centres of Government of India. A Training Centre for Sub-Assistants, Field Supervisors, Surveyors and Foresters is located at Hazaribagh. It is proposed to strengthen this Training Centre with suitable additions of engineering and soil and agronomy experts.

A programme for the training of the Officers and Assistant Soil Conservation Officers at the Soil Conservation Training Centre of the Government of India has been worked out in a phased manner to train all the new personnel required for the Fifth Plan. Other staff and farmers will be trained in the State Training Centre at Hazaribagh. Another Training Centre is proposed to be opened in the command area of Gandak or Kosi for training in Soil and Water management practices. Farmers training will be imparted in the pilot projects under the Centrally Sponsored Scheme. Provision of Rs. 20.00 lakh has been made for training programme during Fifth Plan.

The personnel to be trained during the Fifth Plan will be as follows:—

(1) Gazetted Officers from different disciplines	..	62
(2) Soil Conservation Assistants	.. ..	250
(3) Field Supervisors, Surveyors, Foresters etc.	..	1,000
(4) Farmers	.. .. .	2,250

18. *Strengthening of Organisation.*—During the Fourth Plan period the outlay envisaged for Soil Conservation Programme to be executed by Agriculture Department was of the order of Rs. 236 lakh against which the expenditure is likely to be of the order of Rs. 285.67 lakh. Including the Institutional Finance the outlay proposed during the Fifth Plan for Soil and Water Conservation Programmes in the State plan of the Agriculture Department is of the order of Rs. 1,000 lakh. There is, therefore, an obvious necessity of strengthening the soil and water conservation organisation. A statement is enclosed showing the requirement of officers and staff of various categories and the likely expenditure. It has been proposed to strengthen the organisation at a total cost of Rs. 60 lakh under the Fifth Plan.

19. Necessary statements are enclosed. The total outlay proposed for Soil and Water Conservation programmes to be executed by the Agriculture Department is of the order of Rs. 1,000 lakh out of which Rs. 300 lakh is proposed to be raised from Institutional sources. The outlay proposed in the State plan is therefore, of the order of Rs. 700 lakh. These Programmes will generate employment for 3.1 lakh mandays for skilled and 8.41 lakh mandays for unskilled persons besides regular employment to 76 officers, 858 technical persons, 294 clerical staff and 507 class IV staff.

20. As regards the soil conservation programmes in the forest areas, due to the degraded quality of the forest, sheet and gully erosion has been going on from year to year over extensive areas. Under an integrated programme the Forest Department will cover the degraded forest in a particular watershed while the Directorate of Soil Conservation will treat the upland and agricultural land in the watershed. The programme of the Forest Department will consist of afforestation of open and blank areas of the forest, intensification of soil conservation measures and rehabilitation of rooted waste of Sal and other valuable species in degraded forests. It is proposed to cover 22,000 hectares at an estimated cost of Rs. 170 lakh. This programme will generate employment of the order of 53 lakh mandays.

21. Thus, for the soil and water conservation programme in the State Sector a total outlay of Rs. 875 lakh is envisaged.

## APPENDIX XIII.

## PROPOSED ANNUAL EXPENDITURE ON ORGANISATION FOR FIFTH FIVE-YEAR PLAN.

Serial no.	Particulars.	Number.	Rate.	Expenditure.
1	2	3	4	5
1	(A) State Schemes—			
	Execution—			
	(i) Execution Units .. ..	81	0.34	27.54
	(ii) Subdivision .. ..	27	0.53	14.31
	(iii) Division .. ..	9	0.80	7.20
	(iv) Circle .. ..	20	1.05	2.10
2	Survey, Investigation and Planning—			
	(i) Survey Parties .. ..	20	0.30	6.00
	(ii) Assistant Director (Survey) ..	4	0.52	2.08
	(iii) Deputy Director (Survey) ..	1	0.88	0.88
	(iv) Joint Director (Survey) ..	1	1.05	1.05
3	Research—			
	(i) Deputy Director (Research) ..	1	1.34	1.34
4	Training—			
	(i) Deputy Director (Training) ..	1	1.01	1.01
5	Evaluation—			
	(i) Deputy Director (Evaluation) ..	1	0.52	0.52
6	Headquarters .. ..	..	1.62	1.62
	Total			53.29
	Expenditure on existing staff as committed expenditure (Non-Plan).			(—)41.41
	Total			11.88

Included in the Scheme.

Or say Rs. 12 lakh annually.

## CHAPTER VI

### FOREST

1.1. Forest in Bihar covers an area of 29,169.52 Sq. Km. comprising nearly 18 per cent of the total land area against the all India average of 23 per cent and 33 per cent prescribed by National Forest Policy formulated in 1952. It includes the private forests taken over under the Bihar Private Protected Forest Act, 1947 which account for almost 80 per cent of the entire forest. Burdened with rights and interspersed with human population, it stands depleted due to mis-management, wanton fellings, overgrazing and large incidence of recurring fire. The fertility of the soil of these forests having gone very low, dry, miscellaneous species intermingled with thorny bushy shrubs have usurped the place of dry sal forests. The bulk of the forest lies in Chotanagpur and Santhal Parganas, with sizeable chunks falling in the districts of Gaya, Monghyr and Shahabad and small patches of forest in Bhagalpur and Champaran. Afforestation has of course annexed small area in the districts of Patna and Purnea. The growing stock of forest in Bihar is assessed at 15 million m<sup>3</sup> with gross annual increment of .84 million m<sup>3</sup>.

2. As a result of the development measures taken during the 4th Plan, there has been steady rise in production. The outturn of timber and firewood has shot up from 2.47 lakh m<sup>3</sup> in 1947 to 7.58 lakh m<sup>3</sup> in 1970. Similarly the outturn of bamboo recorded a rise from 5,000 tons in 1947 to 1.40 lakh tons in 1970. The estimated value of the corresponding forest produce rose from Rs. 26.90 lakh in 1947 to Rs. 451.29 lakh in 1970 and Rs. 540.21 lakh in 1972. The average outturn of timber is approximately 0.23 m<sup>3</sup>/ha/year as against all India average of 0.29 m<sup>3</sup>/ha/year. It ranges between 75 m<sup>3</sup>/ha/year in fast growing species to .05m<sup>3</sup>/ha/year in the old private forest.

3. Since forest has a close bearing on rainfall, weather and climate which, in turn, condition agriculture and industry, it plays a vital role in the economy of the State. It conserves and enriches soil, retains necessary moisture and to some extent prevents silting of the dams, canals and rivers by arresting the mud and sand on the upland. It sustains the tribal population of Bihar for a considerable period of the year with its fruits, flowers and edible roots which they collect for their consumption and by providing employment in a big way in forestry operations. It also provides timber for house building and agricultural purposes while it helps mining operations with pit props and tramline sleepers, feeds paper industry of West Bengal and Bihar with raw materials, helps Railway and Defence services through supply of Sleepers and sawn timbers. It has an important role in Rural Electrification and extension of telegraph as it supplies transmission posts on a large scale. Small Scale Industries like saw mills, match splint factory, Biri making, honey and wax collection, rope making and lac production rely entirely on raw materials from the forest.

#### The Fourth Plan experience

The target and achievement during the 4th year as also the anticipated achievement during 1973-74 of the Fourth Five-Year Plan are shown in Annexure I. The progress of plantation of quick growing species has been 100 per cent of the target. But there has been a short-fall in the remaining 3 items, particularly in economic plantation for industrial and commercial use. This is due to reduced allocations, much smaller than the proposed outlays. The plantation of bamboo has particularly fallen far short of the target due mainly to non-availability of area having soil

favourable for its growth and also due to difficulty in protection of bamboo plantation from grazing and head-loaders. There has been, further, short-fall in afforestation in North Bihar chiefly due to actual allocation being less than the proposed outlay.

5. The main quick growing species planted are Eucalyptus and *Acacia auriculiformis*. Bulk of the plantation of Eucalyptus has been done in the Chotanagpur plateau. The rate of growth of this species varies very much with soil characteristics. On deep sandy loam soil a growth rate of 4-5m<sup>3</sup>/ha/year is achieved while on shallow soils and clay sites it comes down even to less than 0.5m<sup>3</sup>/ha/year. However, on an average, a growth rate of 0.75m<sup>3</sup>/ha/year to 1m<sup>3</sup>/ha/year can be had from the plantations of this species on sites generally available for this species. Growth rate of the same order is expected to be achieved from the plantation of *Acacia auriculiformis* on average sites.

### **Objectives and strategy for the Fifth Plan**

6. On the basis of computation made by the National Commission on Agriculture, the requirement of Industrial wood and fuel-wood in Bihar in 1978-79 is estimated to be 18 lakh m<sup>3</sup> and 180 lakh m<sup>3</sup> respectively as against the base level of 10 lakh m<sup>3</sup> and 18 lakh m<sup>3</sup> in 1973. The level of production in 1973-74 of industrial wood and fuel-wood is anticipated respectively to be 4.5 lakh m<sup>3</sup> from recorded fellings and 3 lakh m<sup>3</sup> from unrecorded fellings in orchards, Raiyati and Gairmajarua and Khutkatti plots and 4.50 lakh m<sup>3</sup> from the recorded fellings in the forest and rest from unrecorded fellings and outside forest resources and import from other States. Thus, in 1973-74 both of industrial wood and fuel wood there was a shortfall of about 2 lakh m<sup>3</sup> and 7 lakh m<sup>3</sup> respectively. Since the requirement of industrial wood and fuel wood is likely to go up to 18 lakh m<sup>3</sup> and 180 lakh m<sup>3</sup>, the gap between production and requirement will become wider unless long range planning is done for stepping up production. Although the requirement of industrial wood of 1978-79 will be met out of plantations done in the Second Plan over and above normal exploitation from the existing forest, measures to be taken for protection from fire, illicit felling and grazing will certainly increase yield from these sources. At the same time plantation to be done in the 5th Five-Year Plan will have in view requirements of 20 years hence. Similarly so far fuel wood is concerned, the requirements of 1978-79 and the years prior to that will be met out of the stock already in existence. Measures for their conservation and proper growth will add to the yield from year out of the same stock, New plantation of fuel wood will be done with a view to meeting the requirements of the years beyond 1978-79. Stress has, therefore, been laid in framing the Fifth Five-Year Plan on effective measures against illicit fellings, fires and denudation of the ground flora and fauna which enrich the fertility of the soil and on plantation of industrial wood particularly of the quick growing species which will provide fuel to the homes.

7. During the previous plans, due to constraint of financial resources, the development of forestry, could not keep pace with the growing requirements of the State. A distinctive feature of the 5th Five-Year Plan to overcome the limitations of the financial constraint is provision for the creation of a Forest Development Corporation so that institutional finance may be attracted in adequate measure. The target set forth in this plan in respect of plantation and allied activities is hardly 40 per cent of the objectives aimed at, leaving the 60 per cent to be earmarked for the Corporation. The needs of the State called for a realistic plan of forestry having financial outlay of Rs. 1,426 lakhs, but due to the overall constraint on the size of the plan it has been reduced to Rs. 734 lakh. The idea is to transfer to the Corporation, in due course, the allocation made either in the shape of loan or subscribed equity shares to enable supplemental finance from other sources.

8. In the above context, the targets of production and afforestation have been set forth as below:—

Serial no.	Item.	Unit.	Base level 1973-74.	Target for the Fifth Plan.
1	2	3	4	5
1	Production of Industrial wood ..	0000000m3	.45m3	.60m3
2	Economic plantation .. ..	000 ha	45.769	11.000
3	Plantation of quick growing species ..	000 ha	13.360	11.70
4	Farm Forestry (Private lands, canal, embankments, Road-side public sector and Gairmajarua land).	000 ha	0.692	2.950
5	Fuel wood plantation .. ..	Included in item 4.		

### Programmes and Schemes

9. The outlay of the various schemes has been indicated in Annexure III and the physical targets in Annexure II. For the sake of proper appraisal, the highlights of the schemes are indicated below:—

10. *Commercial plantations.*—In this group, while the target for plantation of quick growing species has been put at 85 per cent of the base level, that of economic plantation for industrial and commercial use has envisaged an increase of 25 per cent only. Care has been taken to relate these plantations to the suitability of the site. To ensure full benefits of this programme provision has been made under separate schemes for consolidation of boundary, measures against fire and against grazing. The outlay envisaged is Rs. 231.11 lakhs.

11. *Farm Forestry and Fuel wood Plantation.*—Under Farm Forestry plantation on private land, Government waste lands outside the forest area, on surplus land in the industrial cities and big towns as also on canal embankments and road-sides have been envisaged. So far fuel wood plantation is concerned, it is not being treated as a separate programme. A substantial quantity of fuel wood will be available out of the lops and tops of industrial and commercial plantations as also from plantation raised on road-sides and canal embankment under scheme of Farm Forestry. An outlay of Rs. 120 lakhs is envisaged for this programme.

12. *Training Facilities.*—The available facilities for training cannot be said to be adequate and up-to-date. It is proposed to improve and strengthen the same in a suitable fashion. The scheme envisages appropriate training of the staff required for the proper execution of the plan in advance at an outlay of Rs. 9.50 lakhs.

13. *Forest Survey, Planning and Statistics.*—It has been considered vital to have sufficiently well-equipped organisation for collection and compilation of statistics, evaluation of performance and advance survey for planning. A separate Planning

Cell has been provided and a separate Division for Evaluation and Advance Survey envisaged. Ultimately the Evaluation branch may have to be kept independent of Advance Survey to ensure objective appraisal. An outlay of Rs. 21 lakh is envisaged.

14. *Intensification of management.*—Under this head a scheme for intensification of management has been given a place. This is important to ensure intensive forestry operation as also to eliminate the factors operating against the full development of forest in proportion to investment. The idea is to relieve the Chief Conservator of Forests, Conservator of Forests and Divisional Forest Officers of the burden of routine work in the office so that they may devote adequate time to forestry. New Divisions and Circles have been provided for to undertake the venture and responsibilities in the fresh fields of activities. Sizes of unwieldy beats, sub-beats etc. are also proposed to be reduced to manageable limits. The outlay proposed is Rs. 10 lakhs.

15. *Communications and Logging.*—Stress has been laid on consolidating the existing roads by making them wider and providing culverts for heavier traffic. This will facilitate faster movement, quick extraction and also open up the outside world to the inhabitants of the forest. There is already a Circle for Departmental Working. During the current year, the Forest Utilisation Division is being split up into Timber Supply and Industry Division. These two will be fully developed during the Fifth Five-Year Plan. The outlay envisaged is Rs. 140 lakh.

16. *Conservation of Wild Life.*—This programme envisages development of the existing two National Parks, creation of 3 Game sanctuaries and creation of a Biological park at Patna. A new Wild Life Circle will also be created during the Fifth Five-Year Plan for implementation of the Wild Life (Protection) Act, 1972. The outlay proposed is Rs. 105 lakhs.

17. *Forest Development Corporation.*—As indicated earlier provision has been made in the plan for loan to and equity participation for financing the Forest Development Corporation to be set up.

18. *Rehabilitation of Degraded Sal Forests.*—The scheme provides for fencing of areas to guard against grazing, anti-fire measures, cutting back of high stumps, covering the blank with plantation and wherever necessary for anti-erosion measures for ensuring better stocking and productivity. It is proposed to cover 1,200 hectares of Sal Forest during the whole plan period at a total estimated cost of Rs. 15 lakhs only. It is likely to generate employment of the order of 4.5 lakh mandays during the plan period.

19. *Consolidation of Boundary Lines.*—The boundaries of the vested private forests are chronically vulnerable to encroachment by the cultivators. It is, therefore, proposed to make on the boundary lines every 3 to 4 pillars pucca and also to have trenches 3' × 2' × 2' in more vulnerable area to consolidate the boundaries and stop encroachment. The target set is construction of 52,000 pillars, trench fencing on 4,000 hectares and new demarcation in 14,000 hectares at a total expenditure of Rs. 10 lakh.

20. *Development of Minor Forest Produce.*—This scheme envisages collection and marketing of minor forest products like medicinal herbs, non-edible oilseeds, honey-bee-wax and plantation of species like Rauwelfia, Citronella and Linaloe, Sishal which have export potential or can be import substitutes, propagation of such other species as are in demand in the State, on commercial scale and harnessing of the Gums and Resin yielding trees for export as well as internal consumption. The implementation of the scheme will result in raising the internal resources of the State and providing employment to the tribals during the lean months. It will cost Rs. 15 lakh during the plan period and provide employment to the extent of 1.6 lakh mandays.



21. *Forest Protection*.—This scheme is in two parts, one for protection from fire and the other for protection from illicit fellings, encroachment and poaching. The fire preventing measures consist of fire tracing of the roads, clearing of internal fire lines and of external forest boundaries besides burning of Mahua tree floors under proper supervision and provision of other adequate fire fighting measures. It is proposed to cover 1,600 square Kilometres of forest under this scheme at an estimated cost of Rs. 8 lakh. Fire protection will result in conservation of soil and moisture and increased fertility.

The other part of the scheme proposes to create four Flying Squads for patrolling the more vulnerable forest area.

22. *Working Plan*.—The scheme envisages revision of the plans of various forest division every 10th year. The work is of a continuous nature and is intended to ensure efficient management of the forest. It is estimated to cost Rs. 5 lakh during the whole plan period.

23. *Housing Accommodations*.—The present strength of the Forest Staff of different categories is shown below:—

C.F.	D.F.O.	A.C.F. & B.O.F.S.	Forest Ranger.	Foresters	Forest Guards.	Assistant.	Total.
1	2	3	4	5	6	7	8
8	43	57	216	668	3,096	500	4,588

Against this the residential quarter constructed upto 1970-71 are as follows:—

1. Conservator of Forest's residence	..	..	..	..	..	..	2
2. Divisional Forest Officer's residence	..	..	..	..	..	..	36
3. Divisional Forest Offices	..	..	..	..	..	..	35
4. Assistant Conservator of Forest's residence	..	..	..	..	..	..	5
5. Range Officer's quarters	..	..	..	..	..	..	148
6. Beat Officer's quarters	..	..	..	..	..	..	395
7. Forest Guard's quarter	..	..	..	..	..	..	1,516
8. Clerk's quarters	..	..	..	..	..	..	242
9. R. I. Huts	..	..	..	..	..	..	297
10. Forest Rest Houses	..	..	..	..	..	..	176
11. Others quarters	..	..	..	..	..	..	504
TOTAL	..	..	..	..	..	..	3,335

There is thus a big gap still. Since the forest Staff have to work in difficult conditions, it is necessary to provide them accommodation to increase their efficiency. It is proposed to construct 400 quarters at an estimated cost of Rs. 35 lakh only.

52 Plan,—7

State—Bihar

A &amp; I

## ANNEXURE I

## PHYSICAL TARGETS AND ACHIEVEMENTS FOURTH FIVE-YEAR PLAN

## FOREST

State Bihar

(AREA IN HECTARES.)

Serial no.	Item.	Base level 1964-69.	Unit.	Targets for the Fourth Plan.	Achievements in Fourth Plan.		Total 6+7.
					Actual 1969-73.	Anticipated 1973-74.	
1	2	3	4	5	6	7	8
1	Plantations of quick growing species	Nil	000 ha	13.360	10.960	2.400	13.360
2	Economic Plantations for Industrial and Commercial uses.	37.279	000 ha	11.281	6.910	1.580	8.490
3	Farm Forestry-cum-Fuel wood Plan- tations.	0.194	000 ha	0.625	0.378	0.127	0.505
4	Communications .. ..	4.762	000 km.	1.150	0.830	0.220	1.050

## ANNEXURE II

## PHYSICAL TARGETS FIFTH FIVE-YEAR PLAN

## FOREST

(AREA IN HECTARES).

Serial no.	Item.	Unit.	Base level 1973-74.	Target for the Fifth Plan.
1	2	3	4	5
1	Plantation of quick growing species	.. 000 ha	13.360	11.700
2	Economic plantation for Industrial and Commercial uses.	000 ha	45.769	11.000
3	Farm Forestry-cum-Fuel wood Plantations	000 ha	0.699	2.950
4	Communications .. .. .	000 km	5.812	Culverts .. 250
5	Rehabilitation of degraded sal forests	.. 000 ha	18.895	6.000
6	Consolidation of boundary lines	.. 000 pillars 000 ha	155.000	.. 50.00 .. Trench ha .. 4.000 .. New demarcation ha 14.000
7	Nature conservation—			
	(a) National Park	.. .. Number		2 Development of the existing parks.
	(b) Game sanctuaries	.. .. Number		16 3 to be intensively developed
	(c) Biological Park	.. .. Number		1 Extension of the existing Park.
8	Timber and Logging Operation—			
	(a) Working of coupes departmentally	.. 000 ha	6.140	1 new Division 22.000
	(b) Establishment of departmental depots	Number	100	To develop the existing depots.
9	Exploitation of minor forest produce	.. Tonnes	17	Tonnes .. 785 Plantation .. 105 ha
10	Training facilities	.. .. .	..	I. F. S. .. 12 E. F. S. .. 16 F. R. .. 30 Foresters .. 150 Forest-Guard .. 3,000
11	Working Plan	.. .. 000 sq. km.	29.168	Revision of working Plans.
12	Housing Accommodation	.. .. Number of buildings.	3,335	400
13	Planning, Evaluation and Advance Survey—			
	(a) Planning Cell	.. .. Division		1 Development of the Cell
	(b) Evaluation and Advance Survey	.. .. Division		.. 1
14	Intensification of management	.. ..		
			C. F. .. 8	Additional Staff C.F. 1
			D. C. F. .. 43	A. C. F. .. 10
			A. C. F. .. 57	Ministerial Staff 13
			R. O. F. .. 216	Forester .. 16
			Foresters .. 668	Forest Guards .. 5
			Forest Guards .. 3,096	Inferior Staff .. 17
			Assistants .. 500	
15	Forest Protection—			
	(a) Fire	.. .. .	..	1,600 sq.km.
	(b) Flying Squads	.. .. Number	..	.. 4
16	Forest Industries	.. .. Division	Nil	Division .. 1
17	Forest Development Corporation	.. ..	..	.. 1

State—Bihar

## ANNEXURE II

## STATEMENT II.

## DRAFT FIFTH FIVE-YEAR PLAN.

## Outlay and Expenditure—Summary.

(RS. IN LAKHS.)

Sl. no.	Head/ Sub-head.	Fourth Plan.				Fifth Plan outlays proposed.				Annual Plan for 1974-75.	
		Approved Fourth Plan Outlay.	Approved outlay for 1973-74.	Anticipated expenditure 1973-74.	Anticipated expenditure during the Fourth Plan.	Total	Capital outlay.	Foreign exchange.	Total.	Capital outlay.	Foreign exchange.
1	2	3	4	5	6	7	8	9	10	11	12
<b>AGRICULTURAL EDUCATION AND RESEARCH.</b>											
1	Forest ..	635.00	128.00	128.00	538.70	538.70	925.00	..	925.00	185	..

## ANNEXURE II

## STATEMENT III.

State—Bihar

## DRAFT FIFTH FIVE-YEAR PLAN PROGRAMMEWISE OUTLAY AND EXPENDITURE.

(RUPEES IN LAKHS.)

Serial no.	Programme.	Fourth Plan approved outlay.	Approved outlay for 1973-74.	Likely expenditure 1973-74.	Likely expenditure during Fourth Plan.	Fifth Plan Total Outlay.	Annual Plan 1974-75 Outlay.
1	2	3	4	5	6	7	8
<b>FOREST.</b>							
1	Plantation of quick growing species..	81.00	18.27	18.27	91.56	128.11	25.00
2	Economic plantation for Industrial and Commercial uses.	70.50	11.50	11.50	59.09	83.00	17.00
3	Farm Forestry-cum-Fuel wood plantation.	30.43	5.10	5.10	21.24	120.00	20.00
4	Communications .. ..	50.85	2.00	2.00	20.90	25.00	5.00
5	Rehabilitation of degraded Sal forests	15.80	2.00	2.00	13.21	15.00	3.00
6	Consolidation of boundary lines—						
	(a) Construction of boundary pillars	5.00	1.00	1.00	5.83	25.00	5.00
	(b) Construction of Trench along boundary lines.	..	..	..	..	9.00	2.00
	(c) New demarcation .. ..	..	..	..	..	1.00	..
7	Nature conservation—						
	(a) National Park .. ..	7.50	2.00	2.00	8.36	10.00	2.00
	(b) Game sanctuaries .. ..	..	..	..	..	15.00	3.00
	(c) Biological Park .. ..	..	13.37	13.37	17.46	80.00	16.00
8	Timber and Logging operation—						
	(a) Working of Coupes departmentally	65.70	20.00	20.00	87.73	100.00	20.00
	(b) Establishment of departmental depots.	15.00	3.00	3.00	14.71	15.00	3.00
9	Exploitation of Minor Forest Produce—						
	(a) Sabai .. ..	30.00	4.00	4.00	20.86	..	..
	(b) Development of M.F.P. .. ..	..	..	..	5.00	15.00	3.00
10	Training facilities .. ..	5.00	0.50	0.50	3.10	9.50	4.00
11	Working Plan .. ..	5.80	3.00	3.00	7.82	5.00	1.00
12	Housing accommodation .. ..	17.32	1.00	1.00	17.34	35.00	7.00
	(a) Houses and Wells for Tribal Peoples.	38.60	2.00	2.00	8.93	..	..
13	Planning, Evaluation and Advance Survey—						
	(a) Planning Cell .. ..	..	..	..	..	5.00	1.50
	(b) Evaluation and Advance Survey	..	..	..	..	16.00	3.00
14	Intensification of management ..	3.00	..	..	..	10.00	2.00
15	Forest Protection—						
	(a) Fire .. ..	5.00	0.75	-0.75	3.25	8.00	1.50
	(b) Flying Squads .. ..	..	..	..	..	9.56	2.00
16	Forest Industries .. ..	..	..	..	..	4.30	1.00
<b>TOTAL .. ..</b>		..	..	..	..	735.00	147.00

## CHAPTER VII

### ANIMAL HUSBANDRY.

According to Geophysical condition, the State of Bihar may be divided into three broad natural regions, viz., (1) North Gangetic Plain; (2) South Gangetic Plain and (3) Chotanagpur Plateau in the south. The first region, viz., the North Gangetic Plain consists of the districts of Champaran, Saran, Muzaffarpur, Darbhanga, Saharsa and Purnea including also parts of the districts of Bhagalpur and Monghyr. The production level of cattle of these areas is moderate but on account of frequent floods the cattle are highly parasitised with the result that the cattle lose their fertility quickly. The second region comprises the districts of Patna, Gaya, Shahabad, Monghyr and Bhagalpur. The production level of cattle of these areas is fairly good. The third region is the plateau of Chotanagpur which comprises the districts of Palamau, Hazaribagh, Ranchi, Singhbhum, Dhanbad and Santhal Parganas. This region is mostly hilly. The production level of cattle of these areas is very poor.

2. According to Livestock Census 1972, livestock population of Bihar is as hereunder (provisional data)—

#### Cattle—

Male over 3 years .. .. .	..	..	..	72,95,418
Female over 3 years .. .. .	..	..	..	41,85,659
Young stock .. .. .	..	..	..	34,30,035

<b>TOTAL—CATTLE</b> .. .. .				1,49,11,112
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#### Buffaloes—

Male over 3 years .. .. .	..	..	..	7,17,867
Female over 3 years .. .. .	..	..	..	19,03,079
Young stock .. .. .	..	..	..	10,57,701

<b>TOTAL—BUFFALOES</b> .. .. .				36,78,647
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<b>Total Bovine</b> .. .. .				1,85,89,759
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Goats .. .. .	..	..	..	73,63,977
Pigs .. .. .	..	..	..	8,78,965
Sheep .. .. .	..	..	..	9,82,878
Horses and Ponies .. .. .	..	..	..	98,858
Camels .. .. .	..	..	..	191
Mules .. .. .	..	..	..	483
Donkeys .. .. .	..	..	..	30,717

<b>Total Livestock</b> .. .. .				2,79,45,828
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Poultry .. .. .	..	..	..	1,25,60,071
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3. According to the Nutritional Advisory Committee of Indian Council of Medical Research, following is the requirement per day for an adult individual for a balanced diet—

Milk and milk product	..	..	..	10 oz
Meat and fish	..	..	..	3 oz
Egg	..	..	..	1.5 oz or 1 egg

According to the above yardstick, the optimum requirement at the end of the Fifth Five-Year Plan (1979) together with the estimated production in 1974, terminal year of Fourth Plan and 1979 (terminal year of the Fifth Plan) are as under—

(In lakh Tonnes)

Name of the Product.	Optimum requirement at the end of the Fifth Five-Year Plan.	The estimated production in 1974, i.e. the terminal year Plan.	Per capita availability at the end of the Fourth Plan (1974).	The estimated production in 1979, i.e. the terminal year of the Fifth Plan.	Per capita availability at the end of Fifth Plan (1979).
1	2	3	4	5	6
1. Milk .. ..	68.11	16.51	2.66 oz. or 75.7 gms. per day.	19.03	2.79 or 79.2 gms.
2. Meat and fish (for non-vegetarian population which is 67 per cent of the total population).	13.69	0.54 (meat only).	2.9 lbs. (meat) per annum.	9.67	3.33 lbs. (meat) per annum.
3. Eggs (for non-vegetarian population which is 67 per cent of the total population).	16.096 millions.	5.12 millions.	14.16 eggs per annum.	837.8 millions.	18.99 eggs per annum.

4. Broad objectives of the Animal Husbandry Development Programme are—

- (1) To increase the production of milk from 16.51 lakh tonnes in 1973-74 to 19.03 lakh tonnes in 1978-79.
- (2) To increase the drought capacity of bullocks by improved breeding and better feeding.
- (3) To increase the production of egg from 512 millions in 1973-74 to 837.8 millions in 1978-79 and poultry meat by improving the breeds of poultry.
- (4) To increase the production of wool and mutton by improving the breeds of sheep.
- (5) To increase the production of pig meat by improving the breeds of pigs.
- (6) To provide adequate facilities for the treatment of livestock and ensure protection against common contagious diseases by preventive measures.
- (7) To ensure increased production of feeds and fodder.
- (8) To train personnel in various specialised fields.

- (9) To conduct investigation on various livestock problems.  
 (10) To increase the total meat production of all kinds excluding beef and buff flesh from 0.54 lakh tonnes in 1973-74 to 0.62 lakh tonnes in 1978-79.

5. The Fourth Plan outlay for the animal husbandry sector was of the order of Rs. 300 lakhs, the anticipated expenditure is Rs. 284.74 lakhs. The outlay proposed during the Fifth Five-Year Plan is Rs. 990 lakhs. The major programmewise break-down of the proposed outlay is as follows:—

				(Rs. in lakhs)
(1) Cattle Development	..	..	..	389
(2) Feeds and Fodder Development	..	..	..	35
(3) Sheep and goat Development	..	..	..	22.50
(4) Poultry Development	..	..	..	153.00
(5) Piggery Development	..	..	..	51.00
(6) Animal Health and Disease investigation	..	..	..	232.00
(7) Education and Statistics	..	..	..	23.00
(8) Other Schemes	..	..	..	84.50
TOTAL				990.00

### Cattle Development

6. The total cattle population of the State according to the Livestock Census of 1972 is about 186 lakhs out of which about 61 lakhs are breedable cows and she-buffaloes. For an allround cattle development it is necessary to bring all the breedable cows and she-buffaloes under controlled breeding programme. The following are the components of the Cattle Development Programme :—

- (a) Breeding ;
- (b) Feeding;
- (c) Disease control;
- (d) Management and Marketing ;
- (e) Weeding.

7. Till now only about 18.5 lakhs of breedable cows and she-buffaloes have been brought under controlled breeding programme. During the Fifth Five-Year Plan it is proposed to bring additional 3.25 lakhs breedable cows and she-buffaloes under the controlled breeding programme. Thus by the end of the Fifth Plan about 21.75 lakh breedable cows and she-buffaloes are to be brought under the controlled breeding programme which comes to only about 36 per cent of the total breedable cows and she-buffaloes. From scientific breeding point of view this State is far behind the desired goal in the matter of cattle development. Cattle development is indeed a programme of very long gestation. The breeding policy as recommended by the panel of Scientists on Animal Husbandry envisages the use of following techniques :—

- (i) Selection based on individual milk production combined with use of progeny testing.
- (ii) Grading up of non-descript cattle by established indigenous breeds.
- (iii) Cross breeding with exotic breeds.

8. To increase the overall production of milk rapidly, all these three methods will have to be used in an intensive and co-ordinated manner and to link up these with proper facilities, such as an intensive programme of production of feeds and fodders and their conservation and production of suitable vaccines for controlling diseases, particularly for the exotic and cross bred animals. With regard to disease problems to be encountered with the introduction of large scale cross breeding with exotic breeds, certain research will also have to be intensified.

9. In the light of the above breeding policy, all the above three methods are under implementation in this State. For upgrading local stock, bulls of Haryana, Tharparkar, Red Sindhi and Murrah buffalo bulls are being utilised. Cross-breeding with bulls of exotic breeds has been introduced in the selected areas, viz. Intensive Cattle Development Blocks, in and around cities and towns. Action has also been taken to intensify feeds and fodder development programme particularly in the Intensive Cattle Development Blocks.

10. The following Cattle Development Schemes are proposed to be incorporated in the Fifth Five-Year Plan with the provision noted against each :—

A. *Spill-over Schemes*

	(Rs. in lakhs) Outlay.
(i) Scheme for improvement and expansion of Government Cattle Farms.	15.00
(ii) Scheme for distribution of improved bulls .. ..	35.00
(iii) Scheme for the establishment of Intensive Cattle Development Blocks, Patna-Arrah and Barauni-Begusarai (non-recurring provision only) and Establishment of one medium size I.C.D. Block at Darbhanga.	66.00
(iv) Scheme for co-ordinated cattle breeding programme—progeny testing of bulls at the Government Cattle Farm, Gauriakarma.	30.00

B. *New Scheme*

(v) Scheme for establishment of 5 Cattle Growth Centres and 5 Intensive Cattle Development Blocks of medium size.	2,43.00
Total .. ..	3,89.00

11. So far only 18.5 lakhs of breedable cows and she-buffaloes have been brought under planned breeding programme through various schemes. But for desired impact on the milk production, all the breedable cows and she-buffaloes in the State should be under the planned breeding programme. But in view of technical feasibility and limited resources, only 21.75 lakhs of breedable cows and she-buffaloes are proposed to be brought under the planned breeding programme during the Fifth Plan period. Further to speed up increase in milk production, institutional finance will also be made available to the farmers for the induction of high yielding cows and she-buffaloes. Therefore, 5 Cattle Growth Centres and 5 I. C. D. Blocks of medium size are proposed to be established during the Fifth Plan period. This will generate direct employment opportunities to 760 persons and indirect employment to twenty-five thousand persons.

12. *Feeds and Fodder Development.*—The accurate estimate of total production of feeds and fodder and its requirement is not available. According to a rough estimate the total production of fodder from all sources in Bihar is 22.6 million tonnes of dry fodder and 43.6 million tonnes of green fodder, while the total requirement of fodder for the livestock is 100.7 million tonnes, i.e. 26.0 million tonnes of dry fodder and 82.6 million tonnes of green fodder per year. Therefore, the additional requirement of fodder per year for the livestock is to the tune of 3.4 million tonnes of dry fodder and 39 million tonnes of green fodder. Thus, there is a big gap between the requirement and the availability of fodder. To bridge this gap, high yielding and nutritious fodder is to be cultivated. It is also necessary to have a laboratory for testing seeds. Therefore, a seed testing laboratory is proposed to be established.



13. To achieve the above objective, it is proposed to take up the following schemes for the development of feeds and fodder with the provision mentioned against each :—

Serial no.	Name of the Scheme.	Rs. in lakhs.
<i>Spill-over Scheme</i>		
(i)	Re-organisation of Tenuka Farm and establishment of Fodder Seed Testing Laboratory.	20.00
<i>New Scheme</i>		
(ii)	Scheme for the establishment of one Seed Production Farm	15.00
Total .. .. .		35.00

14. *Sheep and Goat Development.*—There are 20 sheep and wool extension centres in this State. In addition, a sheep breeding farm is being re-organised and expanded at Chatra (Hazaribagh District) to accommodate 4,000—5,000 sheep, both indigenous and exotic. Government of India have indicated that 500 Romney Marsh Sheep will be supplied to this Farm. Marwari rams have been distributed to the farmers to upgrade the local sheep and thereby increase the body weight and wool clip of sheep in the country side and also to highlight the importance of good breeding stock. From the year 1969-70, the scheme for introduction of sheep among farming communities is under implementation wherein improved ewes are being distributed to the farmers on 75 per cent subsidised cost and rams are being distributed free of cost.

15. The following schemes have been proposed in the Fifth Five-Year Plan.

Serial no.	Name of the Scheme.	Rs. in lakhs.
<i>Spill-over Schemes.</i>		
(i)	Scheme for expansion of Sheep Breeding Farm, Chatra ..	18.50
(ii)	Scheme for introduction of Sheep and Goat among farming communities.	4.00
Total .. .. .		22.50

16. *Poultry Development.*—The total population of poultry in the State of Bihar is about 126 lakhs according to the Livestock Census 1972, out of which it is estimated that 47.1 lakhs are layers. Of these 10 per cent are improved layers. By the end of 1973-74 it is estimated that the total egg production of the State will be 512 millions and the availability of egg per non-vegetarian population per annum will be about 12.5 eggs. During the Fifth Five-Year Plan it is proposed to raise the total egg production to 837.8 millions. The estimated availability of egg per capita non-vegetarian population at the end of Fifth Five-Year Plan will be about 18.99 eggs per annum. Therefore, it is proposed to establish 10 Intensive Egg and Poultry Production-cum-Marketing Centres phasewise during the period 1974—79, in which total 3.00 lakhs layers will be maintained by 6,000 private poultry breeders.

To increase egg production in the industrial centres of the State, it is proposed to establish one Co-operative Estate in the Fifth Five-Year Plan. In this Estate 25,000

layers will be maintained. Further to meet the demand of broiler and layer chicks, it is proposed to expand and re-organise the existing four range poultry farms.

To achieve the above target the following schemes with provision mentioned against each have been incorporated in the Fifth Five-Year Plan :—

Serial no.	Name of the Scheme.	Rs. in lakhs.
<i>Spill-over Scheme.</i>		
(i)	Applied Nutrition Programme .. .. .	15.00
<i>New Schemes</i>		
(ii)	Scheme for the establishment of 10 Intensive Egg and Poultry Production-cum-Marketing Centres.	65.00
(iii)	Scheme for Expansion of Four Range Poultry Farms ..	25.00
(iv)	Scheme for the establishment of one Poultry Co-operative Estate Ltd. in one Industrial Town.	32.00
(v)	Scheme for establishment of five Poultry Dressing Plants ..	16.00

17. *Piggery Development.*—With the sanction of the scheme for the establishment of Pig Breeding Farm-cum-Bacon Factory at Ranchi at the end of the Third Plan under the Crash Programme as a centrally-sponsored scheme, the Piggery Development Programme gathered momentum. With the introduction of exotic breed of pig viz., Yorkshire in the State the Piggery Development Programme is catching the imagination of the people gradually and quite a few private pig farms have sprung up in and around Ranchi. 7 Government Pig Farms which are being established in the State are maintaining pigs of Yorkshire breed which are feeding the 28 piggery development blocks of the State and also supplying pigs of Yorkshire breed to the breeders. But the greatest handicap in the development of pig industry in the State is non-availability of cheap pig feeds. The Dairy Development Corporation, Bihar is examining the feasibility of setting up a Pig Feed Manufacturing Unit at Ranchi in the campus of the Bacon Factory. With the establishment of this unit pig breeders will get encouragement to take up the pig farming on commercial scale. This would help in two ways. First, it will help the Bacon Factory by supplying pigs to its desired capacity for preparation of pork and pork products; secondly, it will help the private pig breeders to improve their economic lot. The present availability of pork and pork products is about 0.18 lakh tonnes. This has got to be increased to the extent of 20 per cent i.e., 0.22 lakh tonnes. To achieve this target it is essential to raise the percentage of graded and pure bred pigs to 25 per cent of the existing pig population. The pig population of the State according to Live-stock Census 1972 is 8.79 lakhs. Thus about 2.20 lakhs of the existing pig population will have to be graded in order to raise the availability of pork and pork products and also the economic condition of the pig farmers.

18. With this end in view the following schemes are proposed to be incorporated in the Fifth Five-Year Plan with the provision noted against each :—

Serial no.	Name of the scheme.	Rs. in lakhs.
1	Scheme for setting up of the Intensive Piggery Development Block.	9.00
2	Scheme for the fattening of Weaner Pigs .. .. .	8.50
3	Extension programme for upgrading indigeneous pigs ..	7.50
4	Scheme for expansion of quality control laboratory of Bacon Factory, Kanke, Ranchi.	0.50

Serial no.	Name of the scheme.	Rs. in lakhs.
5	Scheme for provision for marketing, consumer education, propaganda and sale promotion of the products of the Bacon Factory.	0.50
6	Scheme for the expansion of Pig Breeding Farm, Kanke, Ranchi (Non-recurring provision only).	10.00
7	Scheme for Re-organisation and Expansion of Piggery Development Farms at Hotwar and Gauriakarma.	15.00
Total .. .. .		51.00

The above scheme will also generate direct employment opportunities to 56 persons and indirect opportunities to about 1,500 persons.

19. *Animal Health and Disease Investigation.*—One of the programmes of far-reaching importance launched during the Second Plan was to eradicate Rinderpest. Rinderpest has been for ages enemy number one of cattle and was considered as a major hurdle in pushing up agricultural production. The main campaign having been over, the follow-up programme and 10 check-posts on Indo-Nepal border are still continuing. Further, for the treatment of Livestock 652 Veterinary hospitals and dispensaries are functioning in the State. In addition, there is a proposal to upgrade 100 field Veterinary dispensaries to full-fledged class I Veterinary dispensaries in the year 1973-74. During the Fifth Five-Year Plan, there is a proposal to continue the 100 class I Veterinary dispensaries likely to be upgraded in 1973-74 and to establish 100 new Class I dispensaries.

20. In the Livestock Research Station, Patna various vaccines are being produced. To augment the production of different types of vaccines and strengthening of the Disease Investigation Sections and establishment of a Virological Laboratory, modern equipments and buildings are needed for which provision has been made in the Fifth Plan. Further, provision has also been made for District Diagnostic Laboratories and subject-matter specialists at division headquarters and farms.

21. In the Fifth Five-Year Plan, following schemes are proposed to be incorporated with the provision shown against each:—

Serial no.	Name of the Scheme.	Rs. in lakhs.
<i>Spill-over Schemes.</i>		
(i)	Expansion of Veterinary Services (Opening and continuation New Class I, Veterinary Dispensaries).	1,60.00
(ii)	Expansion of Bihar Veterinary College Hospital, Patna ..	4.00
(iii)	Scheme for Biological Products and Disease Investigation Laboratory.	30.00
(iv)	Scheme for the establishment of District Diagnostic Laboratories.	16.00
(v)	Scheme for the provision of subject-matter specialist at the Divisional levels and farms.	16.00
(vi)	Scheme for the establishment of Epidemiological Cell ..	2.00
(vii)	Scheme for establishment of one Ambulatory Clinic ..	4.00
Total .. .. .		2,32.00

22. *Education and Statistics.*—During the first two Five-Year Plan, top priority was given to extend much needed veterinary aid into rural areas and to control the ravages of livestock epidemics which were playing havoc in the country side. This

programme required large number of veterinarians which could not be anticipated. To meet this shortage of Veterinary Graduates in this State for the implementation of Animal Husbandry Programme the intake capacity of Bihar Veterinary College, Patna had to be increased and new Veterinary College was started at Ranchi. Short-term diploma course was also introduced. As a result of these measures, there was self-sufficiency in respect of technical staff requirements. Simultaneously over years there was also increasing need of higher trained personnel with advanced training in different fields of Animal Husbandry and Veterinary Science. Such being the case, M.V.Sc. and Ph.D. courses were started in the Bihar Veterinary College, Patna and a good number of people were trained in various institutions of India and abroad. As a result of all these steps, we have now two full-fledged veterinary colleges well-staffed to meet any challenges that may arise.

23. Reliable statistics in the field of Animal Husbandry needed for proper planning of development programme, evaluation of progress from time to time, laying down targets of production, estimation of cost of production of Livestock and Livestock products, etc. are not available. Thus there is need for a Statistical Cell in the Animal Husbandry Department staffed with personnel having specialised knowledge of Animal Husbandry. Statistics for which existing statistical unit has to be strengthened. For education and statistics, following schemes are proposed for inclusion in the Fifth Five-Year Plan with provision given against each :—

Serial no.	Name of the scheme.	Rs. in lakhs.
<i>Spill-over Schemes.</i>		
(i)	Training of personnel in India and abroad .. ..	5.00
(ii)	Scheme for introduction of one year P.-G. Diploma Course at Veterinary College, Patna and Ranchi.	3.00
(iii)	Scheme for strengthening of Statistical Unit for development of Statistics for planning and appraisal of Animal Husbandry and Dairy Programme.	15.00
Total .. ..		23.00

24. *Other Schemes.*—With the anticipated increase in the activities of the Animal Husbandry sector during the Fifth Five-Year Plan, there is need for organisation and strengthening of planning cell, Engineering Cell, Information and Extension Service and staff at the headquarters. Provisions have been made for maintenance of existing buildings, electricity and water supply. With this objective in view the following schemes are proposed to be incorporated in the Fifth Five-Year Plan with provision as mentioned against each :—

<i>A. Spill-over Schemes.</i>		Rs. in lakhs.
(i)	Scheme for meeting spill-over expenditure of dispensary buildings, other buildings, electricity and water supply.	25.00
<i>B. New Schemes.</i>		
(ii)	Scheme for the establishment of Planning Cell at the Directorate of Animal Husbandry.	11.50
(iii)	Scheme for the establishment of Engineering Cell Directorate of Animal Husbandry.	13.00
(iv)	Scheme for expansion of Animal Husbandry Information and Extension Service.	5.00
Total .. ..		54.50

I. *Scheme for meeting Spill-over expenditure of dispensary buildings, other buildings, electricity and water supply.*—During the Fourth Five-Year Plan period all capital expenditure whether new, Spill-over or in the nature of expansion were taken in the plan sector. Taking this policy into account during the Fifth Five-Year Plan also, necessary provision for meeting the spill-over expenditure in respect of buildings, electricity and water supply has been made in the Plan sector.

#### *New Schemes*

I. *Scheme for the establishment of Planning Cell at the Directorate of Animal Husbandry.*—In course of implementation of our Five-Year Plan the work load of planning, implementation and evaluation has tremendously increased. It is, therefore, necessary to create a planning cell at the Directorate of Animal Husbandry. Under this schemes provision for necessary staff for the formulation, execution and evaluation of the Plan has been made.

II. *Scheme for the establishment of an Engineering Cell at the Directorate of Animal Husbandry.*—Under Animal Husbandry Programme, there is provision for building in most of the schemes. With the launching of Fifth Plan the provision for buildings will increase tremendously. In course of the implementation of four Five-Year Plans, it has been experienced that construction and maintenance of buildings through other agencies takes a lot of time with the result that the various Plan Programmes suffer a set back. It is, therefore, proposed to set up an Engineering Cell at the Directorate with matching staff in the field.

25. *Scheme for the establishment of one Hide Flaying and Carcass Utilisation Centre at Patna.*—Carcasses are not being fully utilized so far with the result that there is great national wastage. So to build up wealth from waste, it is proposed to establish one Hide Flaying and Carcass Utilization Centre at Patna. In this Centre, hides will be cured and tanned and bone meal and blood meal will be prepared and utilised for poultry feed. It is estimated that this scheme will cost Rs. 10 lakhs.

*Scheme for the expansion of Animal Husbandry Information and Extension Service.*—With the growing tempo of Animal Husbandry Programme there is rising demand from the farmers and field workers for more and more information regarding animal husbandry and allied matters. It is, therefore, proposed to set up a press and to expand the Art Section of the Animal Husbandry Department. Initial action for setting up a Press has been taken during the year 1972-73.

*A. R. C. Loan (State's Contribution).*—For want of adequate credit facilities, livestock development programme is suffering a set back. It is, therefore, proposed to utilise the funds of the A. R. C. in the form of loan and for which a provision of Rs. 20 lakh is proposed.

26. *Programme for backward areas and tribal areas.*—Out of the total Plan provision of Rs. 9,90.00 lakhs proposed for the Fifth Five-Year Plan it is estimated that Rs. 4,04.40 lakhs will be spent in the backward areas and tribal areas of the State viz. Plateau region of Chotanagpur and Santhal Pargana. Thus, the total Plan provision for these areas comes to about 41 per cent of the total outlay.

27. These programmes will generate a direct employment potential of 1,854 persons and indirect employment potential of 28,240 persons.

## ANNEXURE I

## STATE—BIHAR FOURTH FIVE-YEAR PLAN.

## TARGET AND ACHIEVEMENT IN RESPECT OF LIVESTOCK PRODUCT.

Serial no.	Item.	Unit.	Fourth Plan.		Achievement.	
			Base Level (Assumed 1968-69).	Target.	Actual.	Likely Achievement, 1973-74.
1	2	3	4	5	6	7
1	Milk ..	'000 tonnes	15,20	15,90	15,20	16,51
2	Wool ..	Lakh lbs.	16.39	17.54	16.39	17.54
3	Eggs ..	Million	2,95	4,77	2,95	5,66

## ANNEXURE II

## STATE—BIHAR FIFTH FIVE-YEAR PLAN

## TARGET AND ACHIEVEMENT RELATING TO PHYSICAL PROGRAMME OF ANIMAL HUSBANDRY

(In number)

Serial no.	Item.	Fourth Plan		Likely achievement, in 1973-74.	Of Planning Commission.
		Baselevel, 1968-69.	Target, 1973-74.		
1	2	3	4	5	6
1	Intensive Cattle Development Projects.	2	Nil	Nil	Progressive achievement—3
2	Key Village Blocks ..	47	Nil	Nil	Progressive achievement—47
3	Cattle Breeding Farms ..	7	Nil	Nil	Progressive achievement—6 one farm transferred to Rajendra Agriculture University.
4	Fodder Seed Production Farms	Nil	Nil	Nil	One Seed Production Farms is being established at Tekuns (Gaya) which was sanctioned during 1972-73.
5	Sheep Breeding Farms ..	Nil	Nil	Nil	There is one Sheep breeding farm at Chatra.
6	Sheep and Wool Extension Centres.	Nil	Nil	Nil	There are 29 Sheep Wool Ex. Centres.
7	Sheep Shearing Wool Grading and marketing centres.	Nil	Nil	Nil	
8	Bacon Factories ..	Nil	Nil	Nil	1 factory progressive number.
9	Piggery Development Farms	25	Nil	Nil	26 Block Progressive number.
10	Poultry Breeding Farms ..	15	Nil	Nil	15 Progressive number of farms.
11	Intensive Egg and Poultry Productions Marketing Centres.	2	Nil	Nil	5 Progressive number of Centres.
12	Veterinary Hospitals ..	62	Nil	Nil	62 Progressive number of hospitals
13	Veterinary Dispensaries ..	570	100	100	690 Progressive number of dispensaries.

ANNEXURE III  
STATE—BIHAR FIVE-YEAR PLAN  
TARGETS OF LIVESTOCK PRODUCTS.

Serial no.	Item.		Unit.	Base level, 1973-74.	Target, 1978-79.
1	2		3	4	5
1	Mile	.. ..	.. Thousand Tonnes	16,51	19,03
2	Wool	.. ..	.. Lakhs lbs.	18.16	18.16
3	Eggs	.. ..	.. Lakhs nos.	56,67	83,78
4	Meat	.. ..	.. M.T.	60,498	66,943

ANNEXURE IV  
STATE—BIHAR FIFTH FIVE-YEAR PLAN  
TARGET OF PHYSICAL PROGRAMME.

Serial no.	Item.	Base level, 1973-74.	Fifth Plan targets.
1	2	3	4
1	Intensive Cattle Development Projects ..	3	5
2	Key Village Block .. ..	47	..
3	Cattles Breeding Farms .. ..	5	..
4	Fodder Seed Production Farms .. ..	1	1
5	Sheep Breeding Farms .. ..	1	..
6	Sheep and Wool Extension Centres .. ..	20	..
7	Intensive Sheep Development Projects ..	..	..
8	Sheep Shearing, Wool Grading-cum-Marketing Centres	..	..
9	Poultry Breeding Farms .. ..	15	..
10	Intensive Egg Poultry Production-cum-Marketing Centres.	5	10
11	Poultry Co-operatives .. ..	17	..
12	Bacon Factories .. ..	1	..
13	Pork Processing Plants .. ..	..	..
14	Pig Breeding Farms .. ..	1 Farm and 6 Piggery Development Unit.	6 existing Piggery Deve- lopments Units to be re-organised in 2 pig Breeding Farms.
15	Piggery Development Blocks .. ..	28	..
16	Veterinary Hospitals .. ..	62	..
17	Veterinary Dispensaries .. ..	590	100 To be continued and 100 new.



## CHAPTER VIII

### DAIRY AND MILK SUPPLY

1. The production of milk is concentrated around north and north-west and in the Gangetic plains of the State owing to the favourable agricultural and climatic conditions. It is extremely poor in the Chhotanagpur plateau and Santhal Parganas regions due to unfavourable soil and climatic conditions. Chhotanagpur is, however, developing into an industrial complex and the population is fast rising due to rapid industrialisation of this region. Obviously, there is a heavy demand of milk in the industrialised cities and townships while the milk supply is negligible. Thus, there is a great imbalance between the production and demand of milk in between the two regions. There is urgent need to bridge this gap by providing proper marketing facilities through an organised dairy sector.

To achieve the above objectives, Milk Supply Schemes and milk products factories have been established in the State. However, these, for one reason or other, adopted "Rational Approach" as against "Marketing approach". Therefore, the present strategy is to establish urban Milk Supply Schemes and in place of "Rational approach" a wider coverage of "Milk Marketing" to be taken up in areas where milk and milk products are in demand. The strategy will be to take up Intensive Milk Production Programme in the rural areas of north and south Bihar, so that the producers derive full benefit by getting proper price for the milk produced by them.

In order to procure more milk at reasonable price to feed the industrial complex, the strategy is to procure surplus milk from the northern and north-western districts of Bihar and market it in the Chhotanagpur plateau to meet the growing demand. The regular marketing of milk produced in the northern part of the State would act as an incentive to the milk producers for rearing and maintenance of better breed of milch cattle, besides providing a source of subsidiary income to them.

The other aspect of the strategy will be to improve the productivity of milch cattle through scientific cattle development programmes, especially introduction of the exotic inheritance which is the only alternative for quicker and ambitious milk production.

#### **Fourth Plan Experience :**

2. The general emphasis for dairy development during the Fourth Five-Year Plan period has been on consolidation of milk procurement and milk marketing in order to reach the installed capacity of the existing dairy plants, and also to commission the Spill-over dairy projects of previous three Annual Plan periods.

A brief review of progress scheme-wise is given below :—

#### **A. Spill-over Dairy Projects :**

*A.1. Composite Milk Plant, Barauni.—1,00,000 litres/day capacity.*

Government sanction was obtained for the establishment of this project at a total financial outlay of Rs. 214 lakh, and entrusting the work of implementation of this project to the National Dairy Development Board, Anand on "Turn-key" basis. The project was commissioned in the month of September, 1972. The average milk handling was 10,000 litres per day against the targetted capacity of 1,00,000 litres of milk handling per day. This plant has also been designed to manufacture a large variety of milk products, like milk powder, baby food, ghee, butter etc.

This project has been made over to the Bihar State Dairy Corporation on 8th February, 1973, so that pending completion in all respects and formal take-over, the installed capacity might be utilised profitably. Steps have been taken to organise the milk procurement and marketing of products in such a manner that the plant may reach an average handling of 50,000 litres/day during the flush season of 1973-74.

In the meantime, this plant has already started supplying milk to Jamshedpur and Ranchi. Besides, milk is also supplied to Patna and Gaya dairies occasionally. A plan has been prepared to supply bottled milk in the industrial complex of Barauni, by the first week of July, 1973.

**A-2. Bokaro-Dhanbad Milk Supply Scheme.**—Considering the importance of the Steel City and future needs of this area, the State Government decided to set up a fluid milk plant of 25,000 litres milk handling capacity per day at the Bokaro Steel City at an estimated cost of Rs. 73 lakh. The new scheme was sanctioned during 1971-72. The National Dairy Development Board has been entrusted with the establishment of this project on “Turn-key” basis. The actual construction work is likely to be taken up during the year of 1973-74. Keeping in view the urgency of demand of milk in this Steel City, a separate scheme to establish a pilot dairy to handle about 2,000 litres of milk/day has been sanctioned. The Bihar State Dairy Corporation has been entrusted with the task of establishment of the pilot dairy, and it is expected to supply milk by July, 1973.

**A-3. Darbhanga Milk Supply Scheme.**—In accordance with the technical advice of the National Dairy Development Board, this project has been recast to act as a Chilling centre for the Composite Milk Plant, Barauni with a handling capacity of 20,000 litres per day. The work of plant erection was entrusted to the National Dairy Development Board, and they have commissioned the plant in February, 1972. At present, this dairy is handling 3,000 litres of milk per day. It is expected that by the end of the Fourth Plan period this dairy will handle about 10,000 litres of milk per day.

## **B. Consolidation and Expansion of the existing Dairy Projects :**

**B-1. Patna Milk Supply Scheme.**—During the Fourth Plan period plans have been drawn to expand the installed capacity of this plant from 10,000 litres per day to 20,000 litres per day. Under the expansion programme, additional storage tanks, Cream separators, bottling units, and a separate pasteurisation plant originally procured under Swedish Credit for the Dhanbad Milk Supply Scheme were installed at Patna dairy.

At present the dairy is handling about 12,000 litres of milk per day. The working capital has been raised from Rs. 2.25 lakh to Rs. 7 lakh. It is expected that by the end of Fourth Five-Year Plan this dairy would reach handling capacity of 20,000 litres of milk per day.

**B-2. Gaya Milk Supply Scheme.**—This is the oldest dairy scheme of this state, but it has not progressed to the desired level. During the Fourth Plan period an effort has been made to revitalise this dairy by providing additional facilities in the form of working capital, vehicles, milk cans, milk testing outfits etc. At present on an average about 1,500 litres of milk a day is being handled. Action is being taken to provide adequate facilities to this scheme to market larger quantity of milk in the local town as well as in near-by industrial towns like Kodarma, Ramgarh, Bokaro, etc. It is expected that by the end of 1973-74 the plant will handle 6,000 litres of milk per day.

**B-3. Ranchi Milk Supply Scheme.**—The Dairy was commissioned during the year 1969-70. Originally supply of milk to this dairy was taken up from Patna, as there was practically no surplus milk around the city which it could procure for marketing in the town. With the commissioning of Composite Milk Plant at Barauni the Ranchi Dairy is regularly receiving milk from the Barauni Milk Plant. At present, the plant is handling about 4,000 litres of milk per day while its installed capacity is 6,000 litres/day. There is large demand of milk in this industrial town of about 2 lakhs population. But due to absence of adequate facilities for storage and marketing, the plant has not been able to meet the local demand. During the 4th Plan period, the working capital of the dairy has been raised from Rs. 1.00 lakh to 2.00 lakh. During 1973-74, efforts are being made for raising the installed capacity of this scheme to about 10,000 litres per day.

**B-4. Rural Creamery, Barauni.**—The Rural Creamery at Barauni, was facing a lot of difficulties due to shortage of working capital; hence, this was raised to Rs. 6.00 lakh from 3.00 lakh. A few additional staff were provided to facilitate the working, of this dairy. The creamery was handling on an average about 1,000 kgs of cream per day during the year 1972-73 as against the target capacity of 2,000 kgs. per day. Considering the

potentialities of milk production in and around Barauni it was decided in the Third Five-Year Plan to expand the Rural Creamery, Barauni into a Composite Milk Plant.

#### C. Dairy Training Programme :

During the year 1971-72, eight candidates were selected and sent for training in Dairy Science Courses (I.D.D. & B.Sc. Dairying.). Besides, 5 graduate Engineers were sent for practical training in Dairy Plants, under the supervision of the National Dairy Development Board, Anand. During the year 1972-73, four candidates have been sent for training in Dairy Science Course.

Twelve candidates are proposed to be sent for training in Dairy Science during 1973-74.

#### D. Rural Dairy Extension Programme :

The scheme for providing loans to the milk producers co-operative societies for the purchase of better milch cattle under the Rural Dairy Extension Programme was not put through as the banks and other financial institutions started giving loans for this purpose in the milk shed areas of the running Dairy Projects. The other programmes under the Rural Dairy Extension Programmes during the Fourth Five-Year Plan period were the schemes for providing managerial assistance and share capital contribution to the co-operative societies, supply of milk testing outfits, and further strengthening of the existing Dairy Extension Units.

During the Fourth Plan period, a loan scheme for advancing about Rs. 75 lakh through the milk producers co-operative societies was drawn up for the purchase of better milch cattle. The Agricultural Refinance Corporation approved of the scheme for financing through the State Co-operative Bank. This scheme is now being implemented through the 15 co-operative societies in the milk shed area of Patna dairy plant and 30 societies in the milk shed area of Barauni Composite Milk Plant.

#### E. Scheme for strengthening of staff at Headquarters and Establishment of a Dairy Corporation :

With a view to speedier implementation of dairy development programmes and management of dairy projects on commercial lines, the State Government has established the Bihar State Dairy Corporation with an authorised share capital of Rs. 500 lakh. So far the State Government have provided a sum of Rs. 8 lakh as share capital to this Corporation and have transferred the Composite Milk Plant at Barauni to the Dairy Corporation. The responsibility for implementing the projects under operation Flood Programme at an estimated cost of Rs. 440 lakh has also been entrusted to the Bihar State Dairy Corporation.

#### F. Scheme for Establishment of New Dairy Projects :

The State Government has given approval during 1972-73 for establishing a Rural Dairy of 20,000 litres/day milk handling capacity at Samastipur at an estimated cost of Rs. 22.10 lakh through the Bihar State Dairy Corporation Ltd. During 1973-74, it is proposed to have one milk distribution centre at Dhanbad attached to Bokaro Milk Supply Scheme. There is also a proposal to establish milk supply scheme of 25,000 litres/day milk handling capacity at Jamshedpur. The Jamshedpur Milk Supply Scheme and Rural Dairy-cum-Chilling centre, Samastipur, will have to be carried over to the Fifth Five-Year Plan as spill-over projects.

#### G. Dairy Survey Scheme :

A Dairy Survey Scheme was initiated to carry out intensive survey work in the rural areas to assess the milk production potentialities, marketable surplus and milk pricing structure in order to locate rural milk collection centres and also to organise milk procurement. Till now, survey work has been carried out in the districts of Monghyr, Darbhanga and a part of Muzaffarpur. The survey is a continuous process and as such it would continue during the next Plan Per. od.

#### Fourth Plan and Expenditure :

3. The Fourth Plan outlay of fund and the likely expenditure are given below :—	
Fourth Plan outlay.	Fourth Plan likely expenditure.
(Rs. in Lakh).	(Rs. in lakh).
3,50,00	299.12

### Critical Analysis of the Fourth Plan Experience :

4. The milk processing plant is a link between the milk producers of the rural areas and consumers of the urban areas. Therefore, it is necessary to develop an integrated approach towards milk production, milk procurement, milk processing and marketing. Besides, there must be area approach where a definite milk shed area should be earmarked with positive target of milk production enhancement programme, so that the dairy plants do not have any difficulty in the procurement of adequate quantity of milk. So far, this approach could not get proper emphasis with the result that the progress of the dairy plants in terms of milk handling has been far from satisfactory. The supply of milk to the urban consumers has also far been below the demand.

The technical inputs required for enhancement of milk production have not yet been channelised properly through the organised dairy sector. It is imperative that the dairy plants should intensify supply of technical inputs, like supply of balanced Cattle feed, fodder seeds, artificial insemination programme disease control, and veterinary aid. Up till now the dairy plant was concerned mainly with the purchase of milk in competition with other middle men. Direct link or mutual confidence have to be developed between the milk producers and the dairy management. Therefore, it is proposed to orient the dairy plant activities towards servicing the cattle owners for enhancement of milk production, which will consequently accelerate milk procurement for the Dairy plant.

Although a considerable amount has been advanced to the farmers by way of loan for purchase of milch cattle, there has not been commensurate increase in milk production and milk procurement to the dairy plant. The plan is now to supply milch cattle to the farmers instead of giving them money for purchasing the milch cattle. The State Government farms, Central Government farms and the progressive farmers have to be geared up to take up production of quality milch cattle. Institutional finance has to be mobilised to finance the purchase of milch cattle and the farmers are made to realise their responsibility of making repayment of the loan by selling their milk to dairy plant. There has to be tripartite arrangement between the farmers co-operatives, management of the dairy plants and the financial institution concerned in respect of such loan schemes

The Dairy processing plants established in the past were of uneconomical size. Besides they did not have any facilities for conversion of marketable surplus milk during flush season into milk powder. During the lean months milk production drops down to about one fourth of the procurement during flush season while the demand of milk during this period shoots up. The establishment of Composite Milk Plant at Barauni is likely to solve this problem, since this plant can act as a mother dairy for all the other plants. This plant is well equipped to absorb all the surplus milk of different dairy plants during the flush season and in turn it can feed back the other plants with milk powder during the summer months. Further, during the Fifth Five-Year Plan, period the new dairies of 15,000 litres of milk handling capacity have been planned. Besides, provision is being made in the new plants for the manufacture of sterilised milk, ghee dahi etc. to utilise the winter surplus. Reconstitution unit, homogenizer is also being provided for the preparation of reconstituted milk during the summer months.

The losses in the dairy plants in the form of acidic and curdled milk were high due to power failure and fluctuation of voltage at critical points of chilling and storage of milk. Consequently, the plan is now to provide diesel generating sets as stand by units to take up such critical loads of the plant.

The progress of the dairy plants in the past has also suffered due to shortage of the working capital of the plants. By now the working capital has been increased according to the requirement of each plant.

The past experience in the implementation of new dairy projects and expansion of existing dairy projects has not been happy. It has taken six to eight years to implement new dairy projects through the State Departments. Consequently, the State Government implemented the dairy projects during the Fourth Plan period through the National Dairy Development Board. The State Government is however, eager to develop local expertise to implement the new dairy projects. The Bihar State Dairy Corporation has already set up a nucleus engineering cell to take up the execution of the projects under the plan sector on behalf

of the State Government. The Corporation will charge a nominal service fee of 5 per cent on the total estimated cost of projects in order to meet their expenses on establishment etc. This would obviously facilitate execution of the projects within the scheduled period.

### **Objectives for the Fifth Plan**

The production of milk in this State during 1971-72 was estimated to be around 43 lakhs litres a day, while the population of cow over 3 years was about 42 lakhs and that of she-buffaloes over 3 years, 19 lakhs. The total human population as per Census reports in this State is about 570 lakhs. The present production of milk, therefore, makes available only 80 gms. of milk per day per head human population in this State. The actual per capita availability of fluid milk will be still less considering the fact that about 60 per cent of the total production of milk is converted into various milk products and milk based products. According to the recommendation of the Nutritional Advisory Committee the minimum requirement of milk per adult is about 220 gms. per day. Obviously there is a huge gap between the requirement and availability of milk in this State.

To meet the minimum nutritional requirement of the population, it will be necessary to produce about 142 lakhs litres of milk per day, i.e. about 350 per cent of the present level of production.

To provide maximum employment in the rural areas, particularly among the landless agricultural labour and the marginal farmers, the practices of dairying will have to be made an economic proposition. This can be achieved only if the productivity of the animal can be increased by providing technical inputs for upgrading of milch stock and reduction of cost of production of milk. This would require massive breeding programme, cultivation of green fodder, and supply of balanced cattle feed at reasonable rates.

It would be necessary to provide incentive price for milk to these producers, so that they can be freed from the clutches of the middlemen and may derive maximum benefit from the various cattle development projects launched by the State Government from time to time. To extend technical inputs and marketing facilities to the vast population of rural milk producers, it will also be necessary to organise a large number of viable milk producers co-operative societies.

The situation demands an integrated approach to increase the milk production and to create adequate infrastructure for its marketing. A viable milk producers co-operative society can act as a two way traffic where it would extend technical inputs to the primary milk producing members towards increase of milk production and also help organise marketing of milk produced by their members at remunerative prices. It is obvious that during the coming years, greater emphasis has to be laid on increasing milk production.

By the end of Fourth Five-Year Plan it is estimated that 45 lakh litres of milk would be produced daily in the State as against the installed capacity of the Dairy Plants of 1.56 lakhs litres a day which works out to 3.4 per cent of the total production in the State. There is an immediate need to increase the milk handling capacity of the existing plants as well as to establish new dairies in order to handle 8—10 per cent of the milk produced in the State through organised dairy by the end of Fifth Five-Year Plan period. The establishment of new dairies will have two fold objectives, namely to provide assured marketing facilities to the rural milk producers at reasonable rate and to supply wholesome milk and milk products in the urban area and industrial townships where these commodities are scarce and nutritional gap between demand and supply is wide.

By the end of the Fifth Five-Year Plan period, it is estimated that 61 lakhs litres of milk will be produced daily in Bihar. Therefore, to channelise 8—10 per cent of the total milk produced in the State, the installed capacities of the existing as well as new dairies to be established will have to be raised to 4.80 to 5.50 lakhs litres a day. In order to achieve the target, new dairies will have to be established in the urban areas, industrial townships as well as in the rural milk shed areas.

To launch dairy development programmes on such a massive scale, it will be absolutely essential to have a strong body for management and control at the apex level of the whole organisation, equipped with adequate experience and expertise. Recently the State Government

have established the Bihar State Dairy Corporation, a body registered under the companies Act, 1956, for rapid implementation of dairy projects and for taking up the control of the running dairy projects. The Corporation is bound under the Companies Act, to run the Schemes under its control on commercial lines. The projects, purely of developmental nature, which cannot be implemented by the Corporation have got to be executed by the Dairy directorate which also requires to be strengthened.

To sum up ,the broad objectives during the Fifth Plan are as follows :—

- (1) To build up adequate and strong infrastructure in the potential milk shed areas, urban areas and at the apex level of the management so that producer farmers could be benefitted within the stipulated period, for increasing milk production and its marketing through organised dairies.
- (2) To take action for the production of adequate quantities of basic technical inputs required for increasing milk production.
- (3) To popularise the practices of dairying among the rural masses and to reach economic benefits to them by providing remunerative prices and various other basic technical inputs.
- (4) To organise adequate number of healthy milk producers co-operative societies in the milk shed areas of this State and to provide economic relief to the producers through these co-operatives.
- (5) To generate maximum employment facilities in the rural areas through dairy industry within the available financial and administrative resources.
- (6) To raise the installed capacities of the existing dairy plants and establish new dairy plants in the milk shed areas to provide marketing facilities for at least 8—10 per cent of the total quantity of milk production in the State.
- (7) To set up adequate number of milk marketing and distribution centres in the industrial towns of this State to cater to the needs of milk scarcity hit consumers of these areas.

#### **Fifth Five-Year Plan Programme :**

6. A brief description of the Programmes included in the fifth Five-Year Plan is given hereunder :—

#### **(A) Spill Over Dairy Projects :**

The following schemes included in the Fourth Five-Year Plan, are likely to be carried over to the Fifth Five-Year Plan period.

*A-1. Bokaro-Dhanbad Milk Supply Scheme.*—Originally, a scheme to handle 10,000 litres of milk per day at Dhanbad was sanctioned in January, 1965. The proposal was to supply milk to this plant from Barauni area. The Scheme was linked with the setting up of Composite Milk Plant at Barauni. But, due to non-availability of foreign exchange, neither of the two schemes could be put through during third Five-Year Plan period. Subsequently, with the coming up of Bokaro Steel City, the State Government decided to establish the main plant at Bokaro after establishment of the plant at Barauni. The equipment which were imported for Dhanbad Milk Supply Scheme under Swedish Credit programme, was utilised for consolidation and Expansion of Patna Milk Supply Scheme.

The Government have now sanctioned a scheme to handle 25,000 litres of milk a day at an estimated cost of Rs. 73.00 lakh to be established at Bokaro Steel City. The work of establishment of this project has been entrusted to the National Dairy Development Board, on "turn Key" basis, A Plot of land of about 40 acres has been handed over to the State Government by the Bokaro Steel Ltd. for setting up of this dairy. The work of this project is in progress, but the entire commissioning of this plant might be carried over to the first year of the Fifth Five-year Plan. A sum of Rs. 20 lakh has been provided for this scheme in the fifth plan.

**A-2. Jamshedpur Milk Supply Scheme.**—The population in and around Jamshedpur is rapidly increasing due to coming up of a large number of industrial units. There is a great shortage of milk in the town as it is located in non-agricultural areas. Keeping in view the demand for milk, provision was made to establish a dairy of 25,000 litres of milk handling capacity per day at Jamshedpur. Due to constraint of resources during Fourth Plan period and priority for establishment of a Composite Milk Plant at Barauni, this scheme was deferred to the end of the Fourth Five-Year Plan. It is estimated that a sum of Rs. 60.00 lakh would be required to complete the project. Accordingly a sum of Rs. 60.00 lakh has been provided for this scheme during the Fifth Five-Year Plan period.

**A-3. Rural Dairy, Samastipur.**—During Fourth Five-Year Plan period it was proposed to establish two rural dairies to cater to the needs of liquid milk of smaller towns and to supply the surplus milk to the Composite Milk Plant at Barauni. During the year of 1972-73, the State Government sanctioned the establishment of a rural dairy-cum-Chilling centre of 20,000 litres of milk handling capacity per day at Samatipur at a total estimated cost of Rs. 22.10 lakh. The implementation of this project has been entrusted to the Bihar State Dairy Corporation in 1972-73. It might take about two years to commission this project, Hence it is necessary to include it as a Spill-over project under the Fifth Five-Year Plan. A sum of Rs. 5.00 lakh has been provided for this scheme.

#### **(B) Consolidation and Expansion of the Existing Dairy Projects :**

At present the Milk Supply Schemes at Patna, Gaya, Darbhanga, Ranchi and Composite Milk plant at Barauni are functioning. Some of these schemes have achieved their targetted capacity. The year of commissioning of the plant, installed capacities at the beginning of the Fourth Five-Year Plan period, current milk handling expected handling by the end of 1973-74 in respect of these dairy plants has been given at Statement—I.

The Milk Supply Schemes at Patna and Ranchi have progressed satisfactorily but the output of the plant at Gaya has remained poor. The Milk Supply Schemes at Darbhanga and the Composite Milk Plant at Barauni have been recently commissioned.

So far, progress of the plants have been not up to the expectation due to lack of facilities for disposal of marketable. Surplus milk during flush period and a sharp drop in the procurement of milk during summer months coupled with repeated occurrences of drought and flood in the milk shed areas. However, with the commissioning of Composite Milk Plant at Barauni, the prospect of progress of other dairy plants in the State appear to be bright since the Barauni plant has all the facilities to absorb the marketable surplus milk of other plants for conversion into milk powder and other products and again it could supply adequate quantity of milk powder to the same plants during summer months for recombination to liquid milk in order to maintain same level of supply of milk to the public as that during the flush season.

Therefore, additional facilities have been proposed in the existing dairies for reconstitution of milk, opening of milk booths, and transportation of milk from milk producers to the plant and from the plant to the consumers, at a total provision of Rs. 50 lakh.

#### **(C) Establishment of New Dairy Projects :**

By the end of Fourth Five-Year Plan it is estimated that 45 lakhs litres of milk per day would be produced in the State. As against this production the installed capacity of the dairy plants would be 1.56 lakhs litres a day which works out to 3.4 per cent of the total production.

By the end of Fifth Five-Year Plan period it is estimated that 61 lakh litres of milk will be produced daily in Bihar. Therefore, to channalise 8—10 per cent of the total milk produced in the State, the installed capacities of the existing as well as new dairies (to be established) will have to be raised to 4.80 to 5.50 lakhs litres a day. In order to achieve this target, new dairies will have to be established in urban/industrial areas as well as in

rural milk shed areas. Following new Milk Supply Schemes are proposed to be established during Fifth Five-Year Plan period in urban/industrial areas :—

Name of the scheme.	Targetted capacity. (litres/day).	Estimated cost of the project. (Rs. in lakh).
(i) Muzaffarpur Milk Supply Scheme-cum-Product Factory.	50,000	80.00
(ii) Milk Supply Scheme, Bhagalpur ...	15,000	40.00
(iii) Dairy Depots and Distribution Centres in industrial areas, (4 nos.)	...	20.00
Total	...	1,40.00

Places like Sindri, Gomia, Gomoh, Patratu, Jharia, Ramgarh, Giridih, etc. which are located in the Chhotanagpur plateau face acute shortage of milk. Therefore, it is necessary to have distribution centres and milk depots at these places where processed and bottled milk can be supplied from plants located at Bokaro, Jamshedpur, Ranchi, etc. for supply to the consumers. It is proposed to establish 4 such centres in the industrial areas.

Muzaffarpur, Darbhanga, Champaran, and Saran districts of the North Bihar are considered to be highly potential areas for milk production. The total daily milk production in these four districts is estimated to be about 9.50 lakhs litres a day. Besides, the Gangetic plain in the district of Bhagalpur and Monghyr are quite rich in milk production. In order to provide adequate marketing and other facilities to the producers of these areas, it is proposed to set up a dairy plant of 50,000 litres handling capacity at Muzaffarpur and one dairy at Bhagalpur of 15,000 litres day milk handling capacity.

#### (D) Establishment of Rural Dairies :

To feed the larger plants and to provide facilities to consumers in smaller towns it is proposed to establish rural dairies-cum-chilling centres with facilities for distribution of milk. It is expected that only 10—20 per cent of the milk handled through such plant will be utilised for meeting the local demand, whereas the rest of the milk after chilling will be diverted to the bigger plants. The milk handling capacity of these plants will be 15,000 litres per day. Besides these, it is further proposed to establish 10 still smaller rural Dairy Centres of handling capacities varying from 2,000 to 4,000 litres of milk a day. The total installed milk handling capacity of these rural dairies would be around 1.20 lakhs litres a day.

A sum of Rs. 1,27.00 lakh have been provided for these schemes.

#### (E) Dairy Training Research and Quality Control :

**B-1. Central Quality Control Laboratory** —From the foregoing paragraphs it will be evident that the main problem facing dairy industry in this State is lack of organised marketing facilities of milk in the rural as well as urban areas. Even towns having population of more than a lakh are not having facilities for supply of assured quality of milk. As a result, various agencies dealing in milk trade are exploiting the poor village milk producers as well as the urban consumers. There is no effective agency which can help milk producers in getting proper price for their milk and save them from being under-paid.

It is therefore, proposed to establish a central institution which can effectively control the quality of milk and milk products, at different stages of handling as well as can ensure a fair deal to the producers/consumers.

A sum of Rs. 10.00 lakhs has been provided for the establishment of a central quality control laboratory during the Fifth Five-Year Plan.

**E-2. Training and Man-power Development** :—With the development of dairy industry the demand for trained personnel will increase for successful implementation and operation of the



schemes. It has been estimated that in all 3,475 personnel would be required to be trained in different disciplines of dairying. These will include training in Dairy Science, Dairy Engineering, Business Management, Accountancy, etc. Training at lower level for field workers and plant operators would be also essential for the efficient operation of the projects. Provision will also have to be made for the farmers training. A sum of Rs. 10.00 lakh has been provided for this scheme.

**(F) Rural Dairy extension and Milk Production Enhancement Programme :**

*Strengthening of seven existing Dairy Extension Units and establishment of six new Dairy Extension Units.*—With the development programme in view, seven Dairy Extension Units each attached separately with the running Dairy projects in the State were set up during the Third Five-Year Plan. These units have been provided with working capital to supply feed and fodder to the producers at reasonable rates on no. profit no loss basis. During the Fifth Five-Year Plan period serious efforts have to be made to facilitate increase milk production in the milk shed areas by making effective arrangements for the flow of basic technical inputs to the producer farmers. A large number of milk producers co-operative societies have to be organised in the rural area to cover as many animals as possible under the technical input programme to be taken up during the subsequent years. It is proposed to set up 1,500 such co-operative societies during the Fifth Plan period. A suitable team of staff for each milk shed area would be required to achieve this target. Besides facilities in the shape of feed godowns, transport, and technical know-how for the producers for increasing milk production have to be provided. Further for quality milk production, the producers are required to be given adequate information, technical know-how and inputs like supply of balanced feed, fodder seeds, first aid, preventive measures for disease control apart from organisation of calf rallies, milk yield competition farmers' field day, seminars etc., for popularising this trade. Thus to streamline the extension programme in rural areas provision for some additional equipments, vehicles, film materials field staff, etc. have to be made for the existing seven extension units and for the six new dairy extension units proposed to be attached to the new dairy plants and rural dairies during the Fifth Plan period at a cost of Rs. 30 lakh.

*F-2. Provision to raise fund through the Financial institution.*—For the small and marginal farmers and landless labourers who form the most vulnerable section of the rural population, arrangements have to be made to provide employment through dairy industry. It will be necessary to make arrangements of loans from financial institutions like commercial Banks, Agricultural Refinance Corporation, National Co-operative Development Corporation etc., for these farmers to enable them to purchase milch stock, dairy plants and equipments, etc. To support such schemes, the State Government will have to provide around 30 per cent of the loan amount to be deposited in the Banks and financial institution as risk fund and share capital to cover eventualities. It is therefore, proposed to provide a fund of Rs. 7.00 lakh for this purpose in the 5th Plan outlay.

*F-3. Assistance to co-operative societies and their unions in the form of share capital contribution.*—It is necessary that some financial assistance is given in the shape of share capital so that the borrowing capacity of the society is increased. It is proposed to organise 1,500 milk producers' co-operative societies and contribute Rs. 1,500 to each society and Rs. 5,000 to 10,000 to their unions as share capital. A sum of Rs. 30.60 lakh has been provided for this scheme during the Fifth Five-Year Plan period.

*F-4. Scheme for giving Managerial Assistance to the Milk Producers co-operative societies and their unions and assistance to any agency engaged in increasing milk production and its supply to organised dairy plants.*—A provision of Rs. 60.00 lakh has been made in the Fifth Plan outlay to meet the expenditure on managerial assistance to the proposed 1,500 co-operative societies, calf subsidies, subsidised feeds and fodders and for giving assistance to the private or semi-Government organisation engaged in milk production and supplying the milk to the organised dairy plants.

*F-5. Supply of milk Testing and Chilling Outfits, Pumps, Buckets etc., and construction of 100 Milk Centres for the co-operative societies/assemblies/centres/corporate bodies.*—In order to run successfully the existing and proposed milk supply schemes/milk product factories intensive milk collection operations will have to be launched. In doing so it would be

necessary to provide at the assembling centres/milk co-operative societies, necessary equipments needed for collection, chilling and transportation of milk. In certain areas where milking at the village level is practiced in the earthen pots, provision has to be made for supply of buckets to eliminate smoky flavour in milk. Some of the societies having large collection of milk can be provided facilities for construction of milk collection centres where facilities for storing feeds and fodders could be made. A sum of Rs. 20.00 lakh has been proposed for this scheme during the Fifth Five-Year Plan period.

**(G) Survey and Statistics :**

For proper execution of development programme well-trained and experienced staff is necessary to closely evaluate the progress made in terms of plan programme. For launching massive milk marketing and milk production enhancement programmes it is necessary to carry out bench mark survey and there after conduct yearly survey to evaluate the impact of the programmes undertaken. There will be need to provide equipments and machinery to process the data and forecast the results.

A sum of Rs. 2.00 lakh has been provided for this scheme in the Fifth Five-Year Plan.

**(H) Strengthening of staff at Headquarters :**

To launch the dairy development programmes on massive scale of the order of Rs. 701.60 lakh and for the effective control and management of the dairy plants as also to ensure implementation of the projects in its true perspective during the Fifth Five-Year Plan, it will be necessary to strengthen the Organisation for which a provision of Rs. 50 lakh has been made.

**(I) Share Capital contribution to the Bihar State Dairy Corporation :**

The Bihar State Dairy Corporation has been established with an authorised share capital of Rs. 500 lakh. Till 1972-73 a sum of Rs. 21.20 lakh has been transferred to this Corporation as contribution towards its share capital. During the 1973-74 it is proposed to contribute another Rs. 18.00 lakh towards its share capital. The Composite Milk Plant and Rural Creamery at Barauni have been transferred to the Corporation. Besides the implementation of the Operation Flood Projects have also been entrusted to the Corporation. Under operation Flood a Feeder Balancing Dairy of 1.00 lakh litres per day handling capacity and a Cattle Feed Factory are being established at Patna, besides a number of chilling centres/assembling centres and milk production enhancement projects are to be established. The other dairy projects are to be handed over in phases to the Corporation. For all these projects to be implemented and managed by the Dairy Corporation it is necessary to provide adequate fund to the Corporation by way of share capital.

A sum of Rs. 70.00 lakh have been provided for contribution towards the share capital of the Bihar State Dairy Corporation during the Fifth Five-Year Plan period.

**(J) Operation Flood Project :**

During the Fourth Five Year Plan period in the year 1971-72 the Operation Flood Project was launched in this State by the Indian Dairy Corporation through the Bihar State Dairy Corporation Limited for the implementation of dairy development programme in the districts of Patna, Shahabad, Gaya and Saran. The total investment is likely to be of the order of Rs. 440.00 lakh for the establishment of a Feeder Balancing Dairy at Patna of 1,00,000 litres milk handling capacity per day, a Cattle Feed Factory at Patna of 100 tones feed manufacturing capacity per day, besides, Rs. 180.00 lakh towards the technical input for increase in milk production in the milk shed area of the plant. The Indian Dairy Corporation is providing the funds on 70 per cent loan and 30 per cent grant basis, phased over a period of Five-Year beginning from 1971-72.

However, the State Government has to provide necessary fund for the acquisition of land, construction of staff quarter, and towards working capital, since the implementation of this

project has only made a beginning from 1971-72 and is likely to continue up to the period 1975-76, it is, therefore, proposed to provide Rs. 10.00 lakh.

**Total Financial Requirement and Flow of Fund :**

The total financial requirement for implementation of the programmes, during the Fifth Five-Year Plan period will be Rs. 1000.00 lakh. Out of which Rs. 701.60 lakh have been earmarked for the establishment of new dairy plants, consolidation of the existing dairy plants, Man-power development and quality control, Rural Dairy Extension Programmes, strengthening of staff at headquarter and for contribution towards the share capital of the Bihar State Dairy Corporation. A sum of Rs. 50 lakh would be required to provide working capital to the dairy plants to meet their day to day expenditure. Besides, a sum of Rs. 250 lakh would be required to advance loans to the small/marginal farmers/landless agricultural labourers, for the purchase of milch animals. It is expected that the requirement of working capital and loans to be advanced will be met through institutional Finance to the extent of Rs. 300 lakh.

**Employment potentiality :**

8. With the investment of about Rs. 1000 lakh envisaged during the Fifth Five-Year Plan period, for dairy development programmes in this State, it is expected that the total employment potential under this sector will be of the following order :—

Direct employment	...	...	2,348
Indirect employment	...	...	12,050
Self-employment through dairying	...	...	74,750

The employment generation through individual schemes is given in statement no. 4.

**Backward Areas content :**

9. The Chhotanagpur and Santhal Parganas area is acutely deficit in milk production. The strategy during the Fourth Plan was to supply milk in this area from the milk shed areas of North Bihar and South Bihar. This strategy will continue during the Fifth Plan period also.

10 Necessary statements are enclosed.

## STATEMENT I

STATEMENT SHOWING THE INSTALLED CAPACITIES AT THE BEGINNING OF FOURTH FIVE-YEAR PLAN, CURRENT HANDLING AND EXPECTED HANDLING BY THE END OF 1973-74. TARGET INSTALLED CAPACITY BY THE END OF 1973-74 OF THE EXISTING RUNNING DAIRY PROJECTS AND PROJECT UNDER IMPLEMENTATION.

Serial no.	Name of the projects.	Year of commissioning.	Installed capacity at the beginning of the Fourth Five Year Plan.	Current handling day (1973-74).	Expected handling by the end of 1973-74.	Installed capacity at the end of 1973-74.	Remarks.
1	2	3	4	5	6	7	8
1	Patna Milk Supply Scheme, Patna	1964	10,000 lts./day	12,000 lts./day	15,000 lts./day	20,000 lts./day	
2	Gaya Milk Supply Scheme, Gaya	1961	6,000	1,500	6,000	6,000	
3	Ranchi Milk Supply Scheme, Ranchi.	1969	6,000	4,500	10,000	10,000	
4	Darbhanga Milk Supply Scheme, Darbhanga.	1971	6,000	3,000	10,000	20,000	This dairy has been equipped to receive and chill 2,00,000 litres of milk per day and to act as a chilling centre for the Composite Milk Plant, Barauni.
5	Composite Milk Plan, Barauni ..	1972	..	10,000	50,000	1,00,000	
6	Rural Creamery, Barauni ..	1964	2,000 Kgs.	..	..	..	Rural Creamery, Barauni has been amalgamated with Composite Milk Plant, Barauni and had been handed over to the Bihar State Dairy Corporation Ltd.
7	Bokaro Milk Supply Scheme ..	..	..	..	2,000	..	The work of establishment of main scheme has been entrusted to N.D.D.B. A pilot dairy is being established to handle 2,000 litres of milk/day.
8	Rural Dairy-cum-Chilling Centre, Samastipur.	..	..	..	..	..	The establishment of this scheme is being entrusted to the N.D.D.B. during 1973-74.
						93,000	1,56,000

## STATEMENT II

STATEMENT SHOWING THE NUMBERS OF PERSONNEL TO BE TRAINED IN DIFFERENT DISCIPLINES OF DAIRYING UNDER FIFTH FIVE-YEAR PLAN PERIOD. (MAN-POWER DEVELOPMENT PROGRAMME)

Serial no.	Discipline/Grade.	Yearwise phasing of personnel to be trained.					Total.
		1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	
1	2	3	4	5	6	7	8
1	Dairy Science .. ..	10	10	10	15	15	60
2	Dairy Engineering ..	2	2	2	2	2	10
3	Accountancy .. ..	6	6	6	6	6	36
4	Short Course Training ..	10	10	10	10	10	50
5	Farmers Training .. ..	100	200	200	200	200	900
6	Foreign Training in different disciplines ..	2	2	2	2	2	10
7	Milk Technicians .. ..	20	50	50	100	100	320
8	Skilled Operators .. ..	10	20	20	20	20	90
	TOTAL .. ..	160	300	300	355	355	1,470

## STATEMENT III

STATEMENT SHOWING THE PHYSICAL TARGET FOR RURAL DAIRY EXTENSION *vis, a, vis* ORGANISATION OF CO-OPERATIVE SOCIETIES UNDER MILK PRODUCTION ENHANCEMENT PROGRAMME.

Serial no.	Particulars.	Target for Fifth Five Year Plan.	Yearwise phasing of programmes.				
			1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8
1	Organisation of Co-operative Societies ... ..	1,500	200	200	300	400	400
2	Assistance to the Milk Producers Co-operative Societies in the form of share capital contribution at the rate of Rs. 2,000 per society.	..	4.00 lakh	4.00 lakh	6.00 lakh	8.00 lakh	8.00 lakh
3	Scheme for giving managerial assistance to the co-operative societies or to their unions and to other agencies engaged in milk production.	.. lakh	5.00 lakh	10.00 lakh	15.00 lakhs	15.00 lakh	15.00 lakh
4	Scheme for providing milk testing and chilling outfits hand pumps, buckets to the milk centres (100) to the co-operative society.	100 milk centres.	10 milk centres.	20 milk centres.	25 milk centres.	30 milk centres.	15 milk centres.
5	Strengthening of the seven existing Dairy Extension Units.	7	2	2	1	1	1
6	Establishment of six New Dairy Extension Units ..	6	2	2	2	..	..

## STATEMENT IV

## STATEMENT SHOWING THE DAIRY DEVELOPMENT PROGRAMME WITH ALLOCATION TO BE UNDERTAKEN DURING THE FIFTH FIVE-YEAR PLAN.

Serial no.	Name of the projects.	Installed capacity at the end of Fourth Plan in litres.	Proposed capacity by the end of Fifth Plan (in litres/day).	Effective procurement from field.	Proposed allocation during Fifth Plan (Rs. in lakh).	Total.	Employment potential.		
							Direct.	Indirect.	Self-employment.
1	2	3	4	5	6	7	8	9	10
<b>A—SPILL OVER DAIRY PROJECT.</b>									
1	Bokaro-Dhanbad Milk Supply Scheme.	2,000 (Pilot Dairy)	25,000	..	20.00		100	300	..
2	Jamshedpur Milk Supply Scheme.	..	25,000	..	60.00	85.00	100	300	..
3	Rural Dairy, Samastipur ..	..	15,000	15,000	5.00		70	350	3,500
<b>B—CONSOLIDATION AND EXPANSION OF EXISTING DAIRY PROJECTS.</b>									
1	Patna Milk Supply Scheme/ Feeder Balancing Dairy.	20,000	1,00,000	60,000	10.00	50.00	400	2,400	15,000
2	Darbhanga Milk Supply Scheme	20,000	25,000	20,000	10.00		100	1,500	5,000
3	Gaya Milk Supply Scheme ..	6,000	15,000	15,000	10.00		125	500	2,500
4	Ranchi Milk Supply Scheme ..	10,000	15,000	2,000	20.00		100	300	1,000
5	Composite Milk Plant, Barauni	1,00,000	1,00,000	80,000	..		400	2,400	18,750*
<b>C—ESTABLISHMENT OF NEW MILK SUPPLY SCHEME.</b>									
1	Milk Supply-cum-product factory, Muzaffarpur.	..	50,000	40,000	80.00	1,40.00	200	1,000	10,000
2	Bhagalpur Milk Supply Scheme	2,000	15,000	15,000	40.00		150	700	3,500
3	Dairy Depots and Distribution Centre (4 nos.).	..	..	..	20.00		40	..	..
<b>D—ESTABLISHMENT OF RURAL DIARIES.</b>									
1	Capacity 15,000 litres at Sasaram, Chapra, Sitamarhi, Purnea-Katihar, Arrah (5 nos.)	..	75,000	75,000	1,10.00	1,27.00	180	1,300	7,500
2	Capacity 2,000—4,000 litres (10 in nos.).	..	30,000	30,000	17.00		100	1,000	8000
<b>E—DAIRY TRAINING AND QUALITY CONTROL.</b>									
1	Quality Control Laboratory ..	..	..	..	10.00	20.00	50	..	..
2	Dairy Training ..	..	..	..	10.00		..	..	..

F—RURAL DAIRY EXTENSION AND MILK PRODUCTION ENHANCEMENT PROGRAMME.										
1	Strengthening of seven existing Dairy Extension Units and establishment of six New Dairy Extension Units.	..	..	..	30.00	} 1,47.60	..	..	..	
2	Provision to raise fund through the Financial Institution.	..	..	..	7.00		..	..	..	
3	Assistance to Milk Producers Co-operative Societies and their unions, in the form of Share Capital.	..	..	..	30.60		..	..	..	
4	Managerial Assistance to Co-operative Societies and their unions/calf subsidy-subsidised feeds, feeders/assistance to other Government, Semi-Government or private agencies engaged in milk production.	..	..	..	60.00		..	..	..	
5	Supply of milk testing and chilling outfit hand pump, buckets to Co-operative Societies/assembling centres and construction of 100 milk centres.	..	..	..	20.00		..	..	..	
G—SURVEY AND STATISTICS										
..	..	..	..	..	2.00	2.00	33	..	..	
H—STRENGTHENING OF STAFF AT HEADQUARTERS										
..	..	..	..	..	50.00	50.00	200	..	..	
I—SHARE CAPITAL CONTRIBUTION TO THE BIHAR STATE DAIRY CORPORATION.										
..	..	..	..	..	70.00	70.00	..	..	..	
J—OPERATION FLOOD PROJECT.										
..	..	..	..	..	10.00	10.00	..	..	..	
TOTAL		..	1,60,000	4,90,000	3.52.000	7,01.60	7,01.60	2,348	12,050	74,750

\* This project has been handed over to B.S.D. Corporation and as such no financial allocation shown here.

## STATEMENT V

## STATEMENT SHOWING YEARWISE REQUIREMENT OF FUND DURING FIFTH FIVE-YEAR PLAN.

(Rupees in Lakh.)

Serial no.	Heads.	Total.	Yearwise requirement of fund.				
			1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8
<b>A—SPILL OVER DAIRY PROJECTS.</b>							
1	Bokaro-Dhanbad Milk Supply Scheme .. ..	20.00	10.00	4.00	2.00	2.00	2.00
2	Jamshedpur Milk Supply Scheme .. ..	60.00	15.00	20.00	10.00	10.00	5.00
3	Samastipur Rural Dairy .. ..	5.00	1.00	1.00	1.00	1.00	1.00
<b>B—CONSOLIDATION AND EXPANSION OF THE EXISTING DAIRY PROJECTS.</b>							
1	Patna Milk Supply Scheme .. ..	10.00	6.00	4.00	..	..	..
2	Darbhanga Milk Supply Scheme .. ..	10.00	2.00	4.00	2.00	1.00	1.00
3	Gaya Milk Supply Scheme .. ..	10.00	2.00	4.00	2.00	1.00	1.00
4	Ranchi Milk Supply Scheme .. ..	20.00	5.00	5.00	4.00	3.00	3.00
<b>C—ESTABLISHMENT OF NEW DAIRY PROJECTS.</b>							
1	Muzaffarpur Milk Supply-cum-Product Factory ..	80.00	..	..	30.00	30.00	20.00
2	Bhagalpur Milk Supply Scheme .. ..	40.00	..	20.00	10.00	5.00	5.00
3	Dairy depots and distribution centres (4 nos.) ..	20.00	4.00	4.00	4.00	4.00	4.00
<b>D—ESTABLISHMENT OF NEW RURAL DAIRIES.</b>							
1	Rural dairies (15,000 litres)/day at Sasaram, Arrah Purnea, Sitamarhi and Chapra.	1,10.00	22.00	22.00	22.00	22.00	22.00
2	Small Rural dairy centres (2,000—4,000 litres/day) at Bakhtiarpur, Bikramganj, Daudnagar, Monghyr, Betiah, Madhubani, Rosera, Hazipur, Ekangarsarai and Nirmali.	17.00	3.40	3.40	3.40	3.40	3.40
<b>E—RURAL DAIRY EXTENSION PROGRAMME,</b>							
1	Strengthening of the existing Dairy Extension Units and setting up of New D.E. Units.	30.00	4.00	6.00	6.00	7.00	7.00
2	Provision to raise Fund through the Financial Institutions.	7.00	1.00	1.00	1.00	2.00	2.00
3	Share Capital contribution to the Milk Producers Co-operative Societies.	30.60	4.00	4.00	6.00	8.00	8.60
4	Managerial assistance to the Milk Producers Co-operative Societies and assistance to any agency Government, Semi Government or Private engaged in milk production.	60.00	5.00	10.00	15.00	15.00	15.00
5	Purchase of milk testing outfits, chilling outfits and hand pump etc., and construction of milk centres	20.00	2.00	4.00	4.00	5.00	5.00
<b>F—DAIRY TRAINING AND QUALITY CONTROL.</b>							
1	Quality control .. ..	10.00	..	3.00	3.00	2.00	2.00
2	Dairy Training .. ..	10.00	1.00	2.00	2.00	3.00	2.00
G.—SURVEY .. ..		2.00	0.40	0.40	0.40	0.40	0.40
H—STRENGTHENING OF THE DIRECTORATE.		50.00	8.00	8.00	10.00	12.00	12.00
I—SHARE CAPITAL CONTRIBUTION TO THE BIHAR STATE DAIRY CORPORATION.		70.00	5.00	15.00	20.00	20.00	10.00
J—OPERATION FLOOD PROJECT .. ..		10.00	5.00	5.00	..	..	..
<b>TOTAL .. ..</b>		<b>7,01.60</b>	<b>1,05.80</b>	<b>1,49.80</b>	<b>1,57.80</b>	<b>1,56.80</b>	<b>1,31.47</b>



## ANNEXURE I.

## FOURTH FIVE YEAR PLAN—TARGETS AND ACHIEVEMENTS.

Serial no.	Item.	Base level 1968-69.	Target 1973-74.	Anticipated 1973-74.	Remarks.
1	2	3	4	5	6
1	Milk Plant (including Composite Milk Plant) in operation—				
	(a) Numbers .. .. .	2	6	4	
	(b) Capacity in litres .. .. .	16,000 litres/day.	60,000 litres/day.	43,000 litres/day.	
2	Milk Plant Factory (including creameries) in operation—				
	(a) Numbers .. .. .	1	1	1	
	(b) Capacity in kg./litres .. .. .	2,000 kg/litres.	50,000 litres of milk/day	40,000 litres/day	
3	Rural Dairy centres in operation—				
	(a) Numbers .. .. .	..	1	1	
	(b) Capacity in litres .. .. .	..	..	..	The scheme is under implementation.
4	Dairy Co-operatives—				
	(a) Primary society—				
	(i) Numbers .. .. .	N.A.	..	392	
	(ii) Total membership .. .. .	N.A.	..	7,309	
	(b) Unions—				
	(i) Numbers .. .. .	2	..	1	
	(c) Quantity of milk handled—				
	(i) Numbers .. .. .	N.A.	N.A.	5,000(approx.)	

## ANNEXURE II.

## FOURTH FIVE-YEAR PLAN PROGRESS OF UTILISATION OF CAPACITY OF MILK PLANT/PRODUCT FACTORY

Serial no.	Location of Plant/Factory.	Year of installation	Installed capacity in litres (1968-69).	Utilisation (1968-69)	Actual utilisation level 1971-72.	Anticipated utilisation level 1972-73.	Likely utilisation level 1973-74.	Remarks.
1	2	3	4	5	6	7	8	9
1	Patna Milk Supply Scheme, Patna	1964	10,000	2,186	11,516	12,500	15,000	Lt / day
2	Gaya Milk Supply Scheme, Gaya	1961	6,000	550	1,050	1,200	6,000	„
3	Ranchi Milk Supply Scheme, Ranchi.	1969	6,000	..	5,349	5,000	10,000	„
4	Darbhanga Milk Supply Scheme	1971	6,000	..	575	2,000	20,000	„
5	Composite Milk Plant, Barauni	1972	..	..	..	3,000	50,000	„
6	Rural Creamery, Barauni ..	1964	2,000 Kg/day	378.3 (Kg.)	800 (Kg.)	700 (Kg.)	..	R.C. Barauni has been amalgamated with Composite Milk Plant, Barauni and handed over to B.S.D.C.
7	Bokaro Milk Supply Scheme ..	..	..	..	..	..	2,000	The work of establishment of main scheme has been entrusted to N.D. D.B. A pilot dairy is being established to handle 2,000 lit of milk/day.

## ANNEXURE III.

## FIFTH FIVE YEAR PLAN—TARGETS OF DAIRY INDUSTRY.

Serial no.	Items.	Base level	Targeted level
		1973-74.	1978-79. -
		(In litres/day.)	
1	Milk Plant (including Composite Milk Plants) in operation—		
	(a) Nos. . . . .	4	7
	(b) Capacity in litres . . . . .	43,000	1,91,000
2	Milk Product Factories in operation—		
	(a) Nos. . . . .	1	2
	(b) Capacity (in litres) . . . . .	40,000	1,50,000
3	Rural Dairy Centres—		
	(a) Nos. . . . .	..	6
	(b) Capacity (in litres) . . . . .	..	95,000
4	Dairy Co-operatives—		
	(a) Primary Society—		
	(i) Nons. . . . .	392	3,000
	(ii) Total memberships . . . . .	7,309	1,20,000
	(b) Unions—		
	(i) Nos. . . . .	1	5
	(c) Quantity of milk handled in litres . . . . .	5,000 (approx.)	60,000

## ANNEXURE IV.

## FIFTH FIVE YEAR PLAN—TARGETS OF DAIRY PROGRAMMES/PROJECTS.

Items.	Targets. (Litres/day.)
<b>A. SPILL OVER DAIRY PROJECTS TO THE FIFTH PLAN—</b>	
A. (1) Bokaro-Dhanbad Milk Supply Scheme . . . . .	25,000
(2) Jamshedpur Milk Supplu Scheme . . . . .	25,000
(3) Rural Dairy, Samastipur . . . . .	15,000
<b>B. EX,STING MILK PLANT PROPOSED FOR EXPANSION—</b>	
(1) Patna Milk Supply Scheme/Balancing Dairy . . . . .	1,00,000
(2) Darbhanga Milk Supply Scheme . . . . .	25,000
(3) Gaya Milk Supply Scheme . . . . .	15,000
(4) Ranchi Milk Supply Scheme . . . . .	15,000
(5) Composite Milk Plant, Barauni . . . . .	1,00,000
<b>C. DAIRY PROJECTS WHOSE EXPANSION IS PROPOSED TO BE COMPLETED DURING FIFTH PLAN.</b>	All projects as indicated above under item 'B'.
<b>D. NEW MILK PLANT TO PROPOSED TO BE TAKEN UP DURING FIFTH PLAN—</b>	
(1) Bhagalpur Milk Supply Scheme . . . . .	15,000
(2) Dairy Depots and Distribution Centre (4 nos.) . . . . .	5,000 (each).
<b>E. DAIRY PROJECT INDICATED UNDER ITEM "D" ABOVE TO BE COMPLETED DURING FIFTH PLAN.</b>	All dairy projects as indicated under head 'D' proposed for completion during Fifth Plad.
<b>F. NEW MIHK PRODUCT FACTORIES TO BE TAKEN UP DURNIG FIFTH PLAN—</b>	
(1) Milk Supply-cum-Product Factory at Muzaffarpur . . . . .	50,000
<b>G. DAIRY PROJCT UNDER HEAD "F" PROPOSED FOR COMPLETION DURING FIFTH PLAN</b>	Proposed for completion during Fifth Plan.

## CHAPTER IX

### FISHERIES

Bihar has extensive inland fisheries resources. It is estimated that there are 80,000 hectares of tanks and ponds of which only about 20,000 hectares have been brought under fish culture and these too not in an intensive manner. The rest of them are either lying fallow or producing low quantities of fish. In addition to tanks and ponds, there are 40,000 hectares of *Mans*, *Chauras* and swamps; 40,000 hectares of irrigation reservoirs and impoundments besides 1,000 miles of perennial rivers, 2,000 miles of canals and 1,000 miles of seasonal rivers and streams where culture or capture fisheries could be done. Assuming 60 per cent of the adult population of the State requires one ounce of fish protein per day adult, the total requirement of fish in the State will come to roughly 3 lakhs tons per year. At the end of the Third Five-Year Plan production potential was estimated to be 0.48 lakh ton which went up to 0.52 lakh ton by 1969-70. It is estimated that if all available resources are properly utilised, Bihar has a production potential of 1.50 lakh metric tonnes of fish per year.

From the figures given above it is apparent that tanks and ponds constitute the largest potential for inland fisheries resources and, because of their highest potentiality for intensive fish production, deserve priority for development. In the Fifth Plan, therefore, greater emphasis is proposed on the development of fisheries in tanks, ponds, ox-bow lakes and swamps which could suitably be converted into ponds for intensive fish production or utilised for culture of air-breathing fishes. The plan further envisages development of fisheries in reservoirs and running water simultaneously, but till such time the respective technologies for their development are standardised, these activities will be restricted to the extent commensurate with the existing knowledge and availability of funds.

2. *The Fourth Plan Experience.*—The progress in the achievement of targets during the Fourth Five-Year Plan is given in Table 1. The achievements ending 1971-72 (average of the first three years) against the targets prescribed in respect of fish spawn production, production of fry/fingerlings and fish production are 60 per cent, 73 per cent and 88 per cent respectively. This achievement in regard to creation of nursery area is only 31.5 per cent. So far fish production is concerned, out of 60 thousand metric tonnes achieved at the end of 1971-72, only 35 metric tones was produced in 410 hectares of water are in the form of tanks and ponds managed departmentally. The rest of the production was obtained from rivers. Ox-bow lakes and other miscellaneous water bodies under the control of Government, local bodies and the private owners.

By the end of the Fourth Plan (1973-74) it is expected that a level of 200 million spawn and 50 million fry/fingerlings would be achieved, representing an achievement of 66 per cent and 83 per cent respectively. In regard to creation of nursery space, the position on the whole is not satisfactory. Against the target of 80 hectares of additional nursery space, only 25.2 hectares of additional nursery area have been constructed by the end of the year 1971-72, which is only 31.5 per cent of the total plan target. It is expected that in this case target would be achieved to the extent of 85 per cent. The fish production is expected to be of the order of 68,000 M.T. by the end of the Fourth Plan and therefore, the target is likely to be achieved in full.

So far the target of fish spawn and raising them to fry/fingerlings stage is concerned, the achievement during the first three years of the Fourth Plan has not been satisfactory. These shortfalls, to a great extent, resulted from (a) inadequacy of

dependable nursery space and (b) over dependence on riverine source of spawn. The shortfall in regard to construction of nursery is due to the lack of an Engineering Cell in the Directorate of Fisheries. Under the present system of arrangement, the State Minor Irrigation Department is supposed to execute all works costing more than 10,000 (ten thousand). The Central Working Group on Fisheries, in their mid-term appraisal of the plan, have observed that inland fisheries development programmes" have been hampered to a great extent for want of qualified engineering staff in the Department of Fisheries and the delay in execution of projects by other agencies who have enough work load of their own."

In absence of well defined class of fish farmers in this State, greater reliance has been placed for fisheries exploitation on lessees, who, for several reasons, are not in a position to take up intensive fish culture but are interested in only taking out the maximum stock they could do within the short period of their lease. Also, whatever little fish-seed is produced in the private sector is not properly accounted for as a result of which the stocking programmes could not be properly rationalised.

Rivers and their tributaries and streams are managed by agencies or departments other than Fisheries Directorate. These organisations have no programme of rational management of these primary resources so that these are indiscriminately exploited. It is obvious that this resource need to be managed rationally to ensure availability of sustained yields of quality spawn, through continuous study of fishery trends, implementation of measures to regulate fishing intensity, afford protection to brood fish populations and taking up of the programme of transplantation where necessary.

Despite vast potentialities in regard to development of fisheries in reservoirs, fish production has not been substantially increased. This is due to absence of adequate machinery at the State level for under taking surveys, drawing up of project reports and implementing the same. Likewise, in regard to development of canal fisheries, this aspect of development has not yet been taken up.

3. *Objectives and strategy for the Fifth Five-Year Plan.*—In order to make headway in culture fisheries during the Fifth Five-Year Plan, the following strategy will be adopted :—

- (a) Every manageable resource will be attached with an exclusive trained fish farmer to undertake development on effective lines.
- (b) In order to achieve the highest possible production from each resources, an enduring interest and necessary motivation will be created among the fish farmers by way of long lease to facilitate capital investment on the required scale.
- (c) Creation of Fish Farmers Development Agency to facilitate the continuous flow of necessary supplies and services like credit from the Government or the financing institutions, seed from the State/Private seed farms, supply of other inputs like fertilizers, feed, fishing gear, equipments for dewatering, desilting, etc., availability of technical, advisory or extension services and training to the Fish Farmers.
- (d) Reservoir, river and canal fisheries will be developed.
- (e) Spawn production trade will be industrialised by providing training facilities and required assistance to fishermen employed in this trade.
- (f) Strengthening of the existing Statistical-cum-Marketing agency for proper assessment of fish production from different inland water resources and to arrange sale and supply of fish and fish seed at district and subdivisional level.

- (g) Providing training and extension facilities to progressive fish farmers falling outside the operational area of Fish Farmers' Development Agency for intensive fish culture and providing adequate incentive by way of fish seed production and fish production on scientific lines.
- (h) State Fisheries Research Unit will be expanded to take up survey work and preparation of Project Reports of reservoirs. This organisation will also work to adopt and extend among fish farmers the known techniques of fish culture and spawn production under local conditions.

4. *Fifth Plan Targets.*—On the lines of the strategy detailed above, the Fifth Plan envisages to achieve an annual production level of 75 thousand metric tonnes (an additional annual production of 7 thousand metric tonnes by the end of the Fifth Plan), against the estimated production of 68 thousand metric tonnes to be achieved by the end of the Fourth Plan period. The physical targets, with respect to each of the important items, are shown in Annexure III.

5. Brief details of each scheme that is proposed to be taken up during the Fifth Plan period are given below.

*V. Expansion of Fisheries Development Scheme.*—Under this programme, two Regional Fish Farmers Development Agencies, one in Darbhanga and another in Purnea, are proposed to be set up which will take up improvement and intensive culture in the ponds and tanks falling under their area. The total water area of tanks and ponds under each of these agencies, both under private and Government sector, is shown below.

This table further indicates the number of spawn, fry and fingerlings that would be required for stocking and the nursery space needed for raising the stocking material.

Fish Farmers Development Agencies and their area of operation.	Average water area in Government and Private Sector (ha.).	No. of spawn required in millions.	Fry/fingerlings required for stocking in millions.	Nursery space in hac.
1	2	3	4	5
1. Darbhanga .. ..	4,065 Govt. 1,900 Private	150	50	68
2. Purnea .. ..	5,070 Govt. 1,000 Private	165	55	72
Total .. ..	12,035	315	105	140

Under this scheme it is proposed to bring 3,000 hectares of water area (out of total water area of about 12,000 hectares) into intensive fish culture which, by the end of the Fifth Plan, will produce 3,500 metric tonnes of fish per year (an additional annual production of 2,100 metric tonnes). Presently, these water area are yielding only 1,400 metric tonnes of fish per year. With reference to fish production, the present status of these water areas and the anticipated yield expected at the end of the Fifth Plan after they are properly developed, reclaimed and brought into intensive culture is shown below. For convenience, they have been further classified into three categories depending upon their present fish production and the anticipated capital investment required for their development.

## CATEGORIES OF WATER AREA AND THEIR PRODUCTION POTENTIAL

	Category I	Category II	Category III	Total
1. Area in hectares. . . . .	500	1,000	1,500	3,000
2. Present fish production (metric tonnes). (at the rate of 1,000 Kg./ha/ per year).	500 (at the rate of 1,000 Kg./ha/ per year).	600 (at the rate of 600 kg./ha./yr.)	300 (at the rate of 200 kg./ha./yr.)	1,400
3. Capital cost required for improvements (Rs. in lakhs).	5.0 (at the rate of Rs. 100/ha.).	20.0 (at the rate of Rs. 200/ha.).	75.0 (at the rate of 5,000/ha.).	100.00
4. Additional fish production after improvement (metric tonnes).	250 at the rate of 500 kg./ha/per year).	900 (at the rate of 900 kg./ a./ per year).	1,950 (at the rate of Rs. 500 ha. per year).	2,100

Besides the establishment of Fish Farmers, Development Agency, five districts of the Chotanagpur region have also been selected where tanks and ponds will be improved for intensive culture by providing loans to the trained fish farmers through commercial banks. The total water area, both under Government and private sector, under each of these selected districts are shown below. This table also indicates the quantity of fish seed required for proper stocking of the entire water area and the nursery space required for raising the fish seed.

Under this scheme it is proposed to develop and bring 5,000 hectares of tanks and ponds under intensive fish culture. By the end of the Fifth Five-Year Plan, this will produce 5.5 thousand metric tonnes of fish per year at the rate of 1,5000 kg/ha/year. Table below shows the requirement of fish seed and the nursery space required for producing the fish seed.

Name of the district.	Average water area in hectares.	No. of spawn required. (millions).	Fry/fingerlings required. (millions).	Nursery space required (millions).
1. Santhal Parganas .. ..	5,390 Govt. 650 Private	120 120	40 40	50 50
2. Chaibasa .. ..	5,400 Govt.	62	20	25
3. Ranchi .. ..	320 Private	..	..	..
4. Dhanbad .. ..	5,100 Govt. 600 Private	115	38	50
5. Hazaribagh .. ..	2,550 Govt. 480 Private.	90	30	40
Total .. ..	23,040	507	168	215

## STATEMENT SHOWING CATEGORY OF WATER AREA PROPOSED TO BE DEVELOPED UNDER THIS SCHEME AND THEIR PRODUCTION POTENTIAL IN TONNES.

	Category I.	Category II.	Category III.	Total.
1. Area in hectares. . . . .	1,000	3,000	1,000	5,000
2. Present fish production in metric tonnes.	1,000 (at the rate of 100 kg./ha/per year).	1,800 (at the rate of 600 kg/ha/per year).	200 (at the rate of 200 kg/ha/per year).	3,000
3. Capital cost required over improvement.	10.0 (at the rate of Rs.100/ha.).	60.0 (at the rate of Rs.200/ha.).	50 (at the rate of Rs.5,000/ha.).	120.0
4. Additional fish production after completion of (in metric tonnes).	500 (at the rate of 500 kg/ha/yr.).	2,700 (at the rate of 900 kg./ha/yr.).	1,300 (at the rate of 1,300 kg./ha/yr.).	4,500

As the water areas intended to be developed under this scheme fall outside the operational areas of the Fish Farmers Development Agency, the work, which will be managed more or less on similar lines as proposed for the Fish Farmers Development Agency, will be looked after by the districts staff.

The scheme would cost Rs. 339.73 lakhs for the entire five years of the Fifth Five-Year Plan, out of which State's share will be Rs. 119.73 lakhs and the rest of Rs. 220 lakhs will come from institutional sources.

#### Establishment of Engineering Cell.

The Directorate of Fisheries, Bihar has no independent engineering cell of its own. Absence of Engineering Cell has been the main hurdle in the development of Fisheries in this State. With the increased anticipated work proposed during the Fifth Five-Year Plan, one full construction division headed by an Executive Engineer with other supervising staff has been proposed for the Fifth Five-Year Plan. The total cost over this come to Rs. 18.92 lakhs. The construction division will be required to handle work of approximately 3,000 lakhs of rupees during the entire Fifth Five-Year Plan period.

#### Reorganisation of Directorate

During the Fifth Plan period it is visualised to utilise institutional finance for development work on a large scale. A centrally-sponsored scheme with 100 per cent of Central assistance has already been launched in the district of Champaran for development of *Mans*. About Rs. 243 lakh of institutional finance is envisaged to be utilised during the Fifth Plan period on improvement and renovation of derelict tanks for taking up intensive fish culture. In view of the increased work and responsibilities, a scheme for reorganising the present Directorate of Fisheries at a total cost of Rs. 12.54 lakh has been proposed.

#### Scheme for Development of Reservoir Fisheries.

There are over 40 big and small reservoirs in Bihar, covering water area of 40,000 hectares. These reservoirs can yield good quantity of fish crop by proper manipulation of Fish population and judicious exploitation. At present 16 of these reservoirs are under the control of Fisheries Department having a total water area of 8,000 hectares.

The developmental programme under the Fifth Plan, therefore, envisages to create a reservoir cell at the Directorate level which will be a co-ordination cell, at a cost of Rs. 21.72 lakh.

### Intensive Fish Culture Scheme.

'Mans' are narrow and long sections of old river course of various shapes and sizes. Some of these are either completely detached from the parent river, while others still retain temporary connections through 'Chours' which are activated only during the monsoon months. The result is that although these *mans* hold huge water throughout the year, but from fisheries point of view, they are still in wild state. There are altogether 41 such *mans* having a total water area of 3,600 hectares in the districts of Champaran and Muzaffarpur of North Bihar. Most of these are choaked with aquatic vegetation and the natural flushing and entry of spawn and fish seed from the river have stopped. The few *mans* which have been developed by the State Fisheries Department are an exception. The present total production from 2,150 hectares of effective area of these *mans* is estimated to be 414 metric tonnes giving a production figures of 115 kg./h./year. There are about 2.50 lakhs of active fishermen dependent on rivers and *mans* of these districts who take lease for exploitation on year to year basis either from the Government or from the Fishermen Co-operative Societies. There are 30 fishermen Co-operative Societies in this area.

From the point of view of land and water utilisation, the development of these *mans* deserves urgent attention. The Technical Committee of the Central Board of Fisheries have examined in detail the problem of developing these *mans* and decide that the strategy for development of *mans* fisheries might have to be both development of culture and capture fishery.

As the *mans* will be surveyed and their project reports prepared, the blue print will be handed over to the Fish Farmers Development Agency which will take up the work of construction of ponds. The Agency will also select suitable Fish Farmers of the areas, provide training facilities, arrange loans from financing institutions and settle these ponds either permanently or for long lease periods for development and intensive fish production. Since considerable technical guidance will be required by the Fish Farmers Development Agency and contact have to be made at various levels with the concerned department for effective supervision, it is proposed to establish a Co-ordination Cell.

During the last year of the Fourth Five-Year Plan, the development of selected *mans* through Fish Farmers Development Agency as a pilot scheme has already been taken up at a total cost of Rs. 12.46 lakh, the entire cost of which is being borne by the Central Government. This scheme envisage to create 62 hectares of water areas for intensive fish production in 1973-74 which will yield 77 metric tonnes of additional fish per year. During the Fifth Five-Year Plan this scheme will continue and at the end of the Fifth Plan period it will provide 310 hec. of additional water area for intensive fish culture yielding 400 metric tonnes of additional fish per year. This scheme will require institutional finance to the tune of Rs. 23 lakhs and Central assistance of Rs. 39.25 lakh. The total cost of this programme will be Rs. 68.48 lakh.

### Intensive Fish Production Scheme.

Intensive Fish Production Scheme has been continuing since 1966-67 in 25 selected blocks with an object to bring all available water resources under intensive fish production. During the Fifth Five-Year Plan it is envisaged to extend this activity in six more districts and include 30 more selected blocks. It is proposed to create 8 hectares of additional nursery area and bring 20 hectares of waters area



under intensive fish production, yielding 30 metric tonnes of fish per year. The total cost of this scheme comes to Rs. 39.48 lakh.

#### Fish Marketing-cum-Statistical Cell.

Fish production from all inland water resources of Bihar at the end of the Fourth Plan period is estimated to reach a level of 68 thousand metric tonnes. By the end of Fifth Plan period, another 5 thousand metric tonnes of fish will be produced in the entire State making an annual production of 73 thousand metric tonnes. For organising proper marketing of this produce and correct estimation of the total fish produce in the entire State from all inland resources, a Fish Marketing-cum-Statistical Cell is proposed at the Directorate level. This scheme will cost Rs. 6.85 lakhs.

#### Applied Nutrition Programme

The physical achievements of this programme during the first three years of the Fourth Five-Year Plan is hereunder :—

Item of work.	1969-70.	1970-71.	1971-72.	1972-73.
No. of Blocks .. ..	49	58	52	36
No. of tanks taken ..	88	105	100	..
Fry in Millions .. ..	0.98	1.12	0.50	0.70
Fish distributed (in metric tonnes.)	1.80	2.25	5.01	3.17

A provision of Rs. 7.72 lakh has been made in this Scheme.

#### Fisheries Training Scheme

Although the Central Government is providing facilities to the State Governments in training of their in-service personnel of various categories, the basic skill and technical expertise known so far for intensive culture, seed production, capture and exploitation, etc. are not available to fish farmers. The Fisheries Training Officer is engaged in imparting training of 4 months duration to literate fishermen.

During the Fifth Plan greater emphasis is being given on Intensive Fish Culture in smaller water bodies and production of quality fish seed from natural induced breeding and bundh breeding to achieve highest possible production from each source. The plan also envisages to raise a district class of Fish Farmers and create enduring interest and necessary motivation among them by way of permanent settlement or long lease of jalkars to facilitate capital investment. Under these circumstances, adequate facilities for training fish farmers has got to be made. Under the operational area of Fish Farmers Development Agency, such facilities will be arranged by the respective agencies. But for the Districts, which do not fall under the command area of Fish Farmers Development Agency, these facilities have to be arranged by the State Government. The Fifth Plan, therefore, envisages to continue the activities of the present Fisheries Training School and arrange training services to the Fish Farmers. This scheme during the Fifth Five-Year Plan would cost Rs. 6.47 lakh.

#### Expansion of Fisheries Research Scheme

During the Fourth Five-Year Plan, two co-ordinated research projects, one on riverine carp spawn prospecting investigation and another on culture and propagation of air breathing fishes have been taken up in Bihar. The State Fisheries Research

Unit is also working in collaboration with these two Units at Patna and Darbhanga to evolve suitable techniques under local condition. Two other Co-ordinated Projects, one on survey and utilisation of Dhars of Kosi and another on development of reservoir fisheries, is in the offing. To work effectively these two new projects and to extend the work simultaneously in other reservoirs, the existing research organisation of the State department has got to be strengthened. With this end in view, the State research unit is proposed to be expanded during the Fifth Plan at a total cost of Rs. 9.03 lakh.

### Fisheries Propaganda and Demonstration Scheme

Knowledge gained in the field of Intensive Fish Culture Techniques has not yet affected the Fish Farmers as a whole. The result is the follow-up of some age old techniques of irrational stocking and prejudicious exploitation. Considering the importance of propaganda and demonstration of scientific fish culture techniques, the Government of India has advised the State Governments to take up this work on priority basis during the Fifth Five-Year Plan, 50 per cent cost of which is to be borne by the Central Government.

This scheme on a modest scale is, therefore, proposed to be taken up during the Fifth Five-Year Plan. The total cost of the Scheme comes to Rs. 2.43 lakhs in which Rs. 1.21 lakh will be the State's share, and Rs. 1.22 lakh will come as Central assistance.

6. *Fifth Plan Outlay.*—During the Fourth Five-Year Plan the total outlay in the Fisheries Sector was of the order of Rs. 200 lakh. Out of this Rs. 195 lakh was allocated to the Fisheries Department and Rs. 5 lakh was allocated to the Co-operative Department. The expenditure by the Fisheries Directorate and Co-operative Department during the Fourth Plan period has been of the order of Rs. 142.18 and Rs. 4.88 lakh respectively.

During the Fifth Plan the proposed outlay for the Fisheries Directorate is Rs. 250 lakh and in the Co-operative Department Rs. 13 lakh. The main programmes together with their outlay of the Fisheries Department are summarised as under :—

Serial no.	Name of Programme.	Proposed Outlay.	
		State Plan.	Inst. Finance.
(Rs. in lakh.)			
1	Expansion of Fisheries Development ..	1,19.73	2.20
2	Establishment of Engineering Cell ..	18.92	..
3	Reorganisation of Directorate ..	12.54	..
4	Development of reservoir fisheries ..	21.72	..
5	Development of Man-fisheries ..	6.23	23
6	Intensive Fish Production ..	39.58	..
7	Fish Marketing-cum-Statistical Cell ..	6.85	..
8	Applied Nutrition Programme ..	7.72	..
9	Fisheries Training Programme ..	6.47	..
10	Fisheries Research ..	9.03	..
11	Fisheries Propaganda and Demonstration ..	1.21	..
TOTAL ..		2,50.00	2,43.00

7. *Fisheries Programme of the Department of Co-operation.*—During the Fourth Plan small provision of Rs. 5 lakh was made for giving financial assistance to 63 Fishermen's Co-operative Societies. In all there are 350 Fishermen's Co-operative Societies in the State, besides 3 fish marketing federations which have been registered at Patna, Khagaria and Muzaffarpur.

During the Fifth Plan the proposed outlay is Rs. 13 lakh. It is proposed to strengthen the fish marketing federations and the primary fishermen's Co-operative Societies as shown below :—

		(Rs. in lakh.)
<i>(a) Fish marketing Federation—</i>		
(i) Two Ice Plants .. .. .		0.30
(ii) Working Capital loan at the rate of Rs. 15,000 each.		0.30
(iii) Share capital contribution at the rate of Rs. 25,000 each.		0.50
(iv) Subsidy .. .. .		0.30
Total .. .. .		1.40
 <i>(b) Primary Fishermen's Co-operative Societies.—</i>		
(i) Share capital contribution at the rate of Rs. 10,000 each to 40 Societies.		4.00
(ii) Loan/Subsidy for purchase of fishing equipment at the rate of Rs. 10,000 (Rs. 7,500 loan + Rs. 2,500 subsidy) each to 40 Societies.		4.00
(iii) Managerial Subsidy .. .. .		3.60
Total .. .. .		11.60
GRAND TOTAL .. .. .		13.00

For as many as 8 Societies, a sum of Rs. 1.64 lakh is earmarked for Chotanagpur Division and Santhal Parganas District, as indicated below :—

		(Rs. in lakh.)
1. Share Capital .. .. .		0.40
2. Loan/Subsidy .. .. .		0.40
3. Managerial Subsidy .. .. .		0.84
TOTAL .. .. .		1.64

8. Thus, the total outlay proposed in the Fifth Five Year Plan in the Fisheries Sector is of the order of Rs. 2.63 lakh.

Information in Annexures I, II and III is enclosed.

ANNEXURE I.  
FISH  
STATE-BIHAR                      PROGRESS MADE DURING 1969-70 TO 1973-74.

Serial no.	Items.	Unit.	Base Level (1968-69).	Fourth Plan Target (1969-74).	Achievement.		
					1969-72 Actual.	1972-73 * Antici- pated.	1973-74 Target.
1	2	3	4	5	6	7	8
<b>1 Physical Programme—</b>							
	(a) Mechanised boats..	.. No.	..	..	..	..	..
	(b) Trawlers ..	.. No.	..	..	..	..	..
<b>2 Refrigeration—</b>							
	(a) Cold storages ..	.. No.	..	..	..	..	..
	(b) Ice Plants ..	.. No.	..	..	..	..	..
	(c) Freezing Plants ..	.. No.	..	..	..	..	..
<b>3</b>	Minor ports with landing and berth- ing facilities.	No.	..	..	..	..	..
<b>4 Fish Seed Procured—</b>							
	(a) Spawn ..	.. Million	170	300	179	190	300
	(b) Fry/Fingerlings ..	.. ..	26.5	60	43.6	42.1	60
<b>5</b>	Nursery area with Fish Seed Farms..	Hectares	60	60	44.2	10.0	25
<b>6</b>	Development of reservoirs ..	Hectares	400	5,000	..	..	..
<b>7 Fish Production—</b>							
	(a) Inland..	.. 000tonnes	48	68	60	64	68
	(b) Marine ..	.. ..	..	..	..	..	..
	<b>TOTAL</b> ..	.. ..	..	..	..	..	..

NOTE.—All achievements to be shown in terms of levels.

## ANNEXURE II.

## FIFTH FIVE YEAR PLAN 1974—79 : SCHEMEWISE (CLASSIFIED) BREAK-UP OF THE FINANCIAL OUTLAYS.

(Rs. in lakhs.)

Name of Scheme.	Fifth Plan Outlay 1974—79.		
	Total.	Capital.	Foreign Exchange.
1	2	3	4
<b>I. Inland Fisheries—</b>			
(a) Expansion of Finances Development Scheme .. ..	3,39.73	2,53.45	..
(b) Development of Reservoir Fisheries .. ..	21.72	3.05	..
(c) Development of <i>Man</i> Fisheries .. ..	68.48	26.75	..
(d) Intensive Fish Production Scheme .. ..	39.58	9.80	..
(e) Applied Nutrition Programme .. ..	7.72	0.15	..
(f) Centrally Sponsored Integrated Pilot Project Scheme on Development of Reservoir.	15.00	..	..
<b>II. Marine Fisheries—</b>			
(a)			
(b)			
<b>III. Marketing, Processing and Storage—</b>			
(a) Marketing-cum-statistical Cell .. ..	6.85	2.80	..
<b>IV. Research Education and Training—</b>			
(a) Expansion of Fisheries Research Scheme .. ..	9.03	2.80	..
(b) Fisheries Training Scheme .. ..	6.47	0.50	..
(c) Central Sponsored State Level Composite Fish Farm ..	10.00	7.50	..
<b>V. Fisheries Extension and Administration.—</b>			
(a) Reorganisation of Directorate of Fisheries .. ..	13.54	1.24	..
(b) Establishment of Engineering Cell .. ..	18.92	2.10	..
(c) Fisheries Extension Scheme .. ..	2.43	1.10	..
<b>TOTAL</b> .. ..	<b>5,59.47</b>	<b>3,10.64</b>	<b>..</b>

..—Nil.

Out of this total Plan outlay, the break up of the Central, State and Institutional Snnance is as such.

State Sector—Rs. 2,51.0 lakh, Central Sector Rs. 65.47 lakh, and Institution Sector—Rs. 243.0 lakhs.

## ANNEXURE III.

## FIFTH FIVE YEAR PLAN 1973-79 : PRODUCTION AND PROGRAMME TARGET FISHERIES.

Serial no.	Item.	Unit.	Base Level 1973-74.	Fifth Five Year Plan Target 1978-79.
1	2	3	4	5
1	Physical Programmes—			
	(a) Boats machanised .. .. .	No.	..	..
	(b) Trawlers Procured .. .. .	No.	..	..
2	Refrigeration—			
	(a) Number .. .. .	No.	..	..
	(b) Rated capacity .. .. .	Tonnes	..	..
	(c) Ice Plants—			
	(i) Number .. .. .	No.	..	..
	(ii) Rated capacity .. .. .	Tonnes	..	..
	(d) Freezing Plants—			
	(i) Number .. .. .	No.	..	..
	(ii) Rated capacity .. .. .	Tonnes	..	..
3	Minor Parts with landing and borthing facilities .. .. .	No.		..
4	Fish Seed Procured—			
	(a) Spawn .. .. .	Million	200	400
	(b) Fry/Fingerlings .. .. .	Million	50	100
5	Fish Seed Farms—			
	(i) Number .. .. .	No.	..	..
	(ii) Area .. .. .	Hectares	650	130.0
6	Nursery Area .. .. .	Hectares	..	..
7	Development of reservoirs .. .. .	Hectares	5,000	5,000
8	Brachish water fish farming .. .. .	Hectares	..	..
9	Fish market through institutions i.e. Co-operatives/Corporation	Tonnes	..	..
10	Fish Production—			
	(a) Inland .. .. .	Tonnes	68	75
	(b) Maringe .. .. .	Tonnes	..	..
	(c) Total .. .. .		68	75

NOTE.—1. All physical targets to be indicated in terms of levels.

2. In case of base levels as targets only completed works are to be included. For instance, in relation to the programme of nursery area the area actually under fish seed nursery at the end of 1973-74 should be shown as base level.

## CHAPTER X.

### MARKETING AND WAREHOUSING.

#### Agricultural Marketing.

With the sanction of I.D.A. loan of 14 Million Dollars to develop 50 markets in Bihar, the Bihar State Agricultural Marketing Board has been constituted to exercise superintendence and control over Marketing Committees and also to be in over-all charge of the execution of programmes of agricultural marketing. Barring a small cell under the Government, the entire marketing organisation of the Agriculture Department has been transferred to the Board with effect from 30th October 1970.

#### The Fourth Plan Experience

2. The progress made so far and the likely achievements by the end of the Fourth Five-Year Plan in various activities of agricultural marketing are as follows :—

(a) *Regulation of markets*—The Bihar Agricultural Produce Markets Act, 1960 was enacted with a view to safeguarding the interests of the farmers in the markets. There are 314 wholesale markets in the State, out of which 68 markets have been brought under regulation by the end of 1971-72. During 1972-73 a target for bringing 68 new markets under the purview of the Act was fixed against which preliminary notification for 50 markets has already been issued and in respect of the remaining 18 markets the work is in progress. During the year 1973-74, the proposal is to regulate 50 new markets. Thus, by the end of the Fourth Five-Year Plan 186 markets are expected to be brought under regulation.

(b) *Development of marketing complex.*—(i) *Under I.D.A. Project.*—I.D.A. has sanctioned a project for the development of 50 markets at a total cost of Rs. 16.95 crores. Under this project 50 important markets would be provided with modern market yards alongwith marketing and storage facilities. Market yards proposed to be constructed would be composite markets which would not only provide facilities for the sale of the produce of the producers—sellers but would also make available inputs such as seeds, fertilizers, motor pumps, sprayers and dusters as well as workshop for repair of implements. Consumer stores would also be available in the market yard to meet the consumer needs of the users of the markets.

3. The cost of the land is to be borne by the State Government and that of construction of yards, etc., would be met from the World Bank Loan. Preparatory work on this project has already started but actual construction would begin in the current year (1973-74) and would continue upto 1978. According to the time schedule, construction of 10 markets would be undertaken during the year 1973-74. The land acquisition is almost complete for 10 markets of the first phase and it is expected that by the end of the Fourth Five-Year Plan period land acquisition would also be completed for at least another lot of 10 markets.

4. *Under Central assistance.*—Under this project, a ceiling of Rs. 10 lakh has been fixed for the development of each market. The Central Government has proposed to provide 20 per cent margin money, subject to a maximum of Rs. 2 lakh as grant. The balance of Rs. 8 lakh is to be obtained from Commercial Banks as loan. 33 markets have been proposed to be included under this project.

5. *In S.F.D.A. and M.F.A.L. areas.*—Recognising the pivotal role that markets play in assuring remunerative returns to farmers, the Government of India have agreed to provide fund to the tune of Rs. 1 lakh per market in the areas where the scheme for Small Farmers Development and Marginal Farmers and Agricultural Labourers Agencies are in operation. In all 30 markets are to be taken up in this scheme.

6. *Grading and Standardisation (Grading for Consumers).*—Grading and standardisation of agricultural commodities under the Central Agricultural Produce (Grading and Marketing) Act, 1937 formed an important part of activities of the State Organisation. From the very inception, efforts were largely confined to pilot projects undertaken in commodities like *gur*, tobacco, *ghee*, etc. The Central Laboratory at Patna and one State Grading Laboratory at Darbhanga have been set up so far.

Grading of agricultural produce before being put for sale is an essential part of market development programme. It helps the producer-sellers in fetching reasonable price and assuring desired quality to the consumers. By the end of 1971-72, 34 grading units were set up at Mandi levels in the regulated markets and six additional centres have been set up during 1972-73. It is proposed to establish 24 additional grading units during 1973-74. Thus, by the end of the Fourth Five-Year Plan the State will have 67 grading units.

7. *Collection and dissemination of market prices, stocks, etc.*—The importance of Market News service as an aid towards planned production and promotion of orderly marketing by achieving effective distribution and fair pricing of farm products needs no emphasis. So far 48 Market Intelligence Centres have been established and another set of 21 such centres are likely to function by the end of 1973-74.

8. *Link Roads.*—Out of the 50 markets taken up under the World Bank Project, 22 fall in the Command Areas of Kosi, Gandak and Sone. 11 link roads are being constructed at an estimated cost of Rs. 100 lakh in the Kosi Command Area. The Central Government have also sanctioned link roads for Gandak and Sone Command Areas at an estimated cost of Rs. 100 lakh and Rs. 65 lakh respectively. The work on these roads will commence from the current year (1973-74).

#### **Objective and Strategy during the 5th Plan period.**

9. The main objective of agricultural marketing is to provide basic facilities for the movement, grading and disposal of agricultural produce so as to give the best possible returns to the farmers for his produce, adequate quantities of all produce of appropriate quality at minimum incidental cost to the consumers and reasonable margin of profit to the traders. In order to achieve this objective the strategy in agricultural marketing during the Fifth Five-Year Plan consists of—

- (a) Bringing all the remaining wholesale markets under regulation ;
- (b) Development of market yards and provision of marketing and warehousing facilities on a priority basis ;
- (c) Setting up of one grading laboratory in tribal areas ;
- (d) Establishment of Market Intelligence Centre in each market ;
- (e) Strengthening of organisation at various levels to cope up with the increased activities of agricultural marketing and training the personnel.

10. A brief description of the activities of this sector proposed during the Fifth Five-Year Plan is given below :—

*A-1. Strengthening Organisation at Supervisory Level.*—For proper supervision of the functions of the Market Committees and their co-ordination, 4 posts of Assistant Director of Agricultural Marketing with supporting staff have been proposed to be created during 1973-74. A provision of Rs. 6.50 lakh has been proposed for its continuance during the Fifth Five-Year Plan period.

*A-2 Grant to A.N.S. Institute.*—Under the agreement with I.D.A., the evaluation of Bihar Agricultural Markets Project has been entrusted to A.N.S. Institute of Social Studies, Patna and the evaluation cost is to be borne by the State Government. The evaluation work will continue upto July, 1977. Necessary provision to the tune of Rs. 5.78 lakh has been included in the Plan.



- A-3 Town Planning Cell.*—For Planning and lay-out of the markets under I.D.A. Project, it has been decided to have a Town Planning Cell under the Board. There is a provision of Rs. 2.16 lakh for this wing in the Annual Plan, 1973-74. For its continuance during the fifth plan period, a sum of Rs. 8.50 lakh has been included in the Plan.
- A-4 Land Acquisition Cell.*—With a view to expediting the land acquisition proceedings, a separate cell consisting of one Land Acquisition Officer and two Kanungos with other supporting staff has been created in the Board. This cell will continue during the Fifth Five-Year Plan and a sum of Rs. 5.50 lakh has been proposed to be provided.
- B-1 Regulation of new markets.*—Out of 314 whole-sale markets in the State, 186 markets are expected to be brought under regulation by the end of the Fourth Plan. It is proposed to regulate the remaining 128 markets during the Fifth Five-Year Plan period for which a sum of Rs. 28.93 lakhs has been earmarked.
- B-2 Development of Markets under the I.D.A Scheme I and Acquisition.*—Under the agreement, the land acquisition cost for 50 markets selected for development with the assistance of World Bank is the responsibility of the State Government. The land acquisition proceedings for 50 markets will have to be finalised during the Fifth plan period. Though the cost of land is expected to be much higher only Rs. 1.41 lakhs are being provided due to constraint of resources.
- B-3 Establishment of State Laboratory in tribal area and opening of new grading units.*—There is a proposal to setup one grading Laboratory in tribal area and establish 60 additional grading units during the Fifth Five-Year Plan. The scheme is estimated to cost Rs. 22.09 lakh.
- B-4 Establishment of Market Intelligence Centres.*—69 Price Reporting Centres are expected to function by the end of 1973-74 and it is proposed to open 100 additional Price Reporting Centres during the Fifth Five-Year Plan at an estimated cost of Rs. 9 lakhs only.
- B-5 Strengthening of Organisation at Supervisory level.*—The scheme aims at strengthening of organisation at divisional and district levels, wherefrom close supervision and effective co-ordination of the working of regulated markets are necessary. At present there are 4 posts of Assistant Director of Agricultural Marketing. Another 4 posts are likely to be created during 1973-74. During the Fifth Five-Year Plan it is proposed to create additional 9 posts with supporting staff, making a total of 17 such posts so that one Assistant Director may be assigned to supervise and co-ordinate the working of regulated markets within one old district. Besides, there is a proposal to create 6 posts of Deputy Director of Marketing, out of which one post is needed at the headquarters and the remaining 5 posts are required at the range levels. The cost of the strengthening of the organisation has been estimated at Rs. 21.65 lakh.
- B-6 Training of personnel.*—Training of personnel is essential as per agreement with the World Bank. It is, therefore, proposed to impart training to 175 Market-Secretaries and 112 Grading Inspectors during the entire fifth plan period.
- B-7 Financial assistance to newly regulated markets.*—Under this scheme the proposal is to provide assistance at the rate of Rs. 1,000 to each newly regulated markets committee in the first year.
- B-8 Loan to the Agricultural Marketing Board.*—State Agricultural Marketing Board has been constituted by Bihar State Agricultural Produce Markets (Amendment) Act, 1972. Loan is being made available each year for meeting the establishment and other contingent expenditure incurred over the headquarters staff of the Board. During 1973-74 a sum of Rs. 10 lakh has been provided under this item. During the Fifth Five-Year Plan

period, a sum of Rs. 8 lakhs would be required each year for expenditure over the Boards' Establishment. The Board would also require about Rs. 5 lakh by way of loan for the construction of office building. Thus, in total a sum of Rs. 45 lakhs would be needed as loan.

11. Schemewise and yearwise details are enclosed. The total outlay proposed for agricultural marketing is Rs. 3,00 lakh.

**REQUIREMENT OF FUNDS UNDER PLAN SECTOR.**

(Fifth Five-Year Plan).

[Rs. in lakh]

Serial no.	Scheme.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	TOTAL.
1	2	3	4	5	6	7	8
<i>(A) Continuing Schemes—</i>							
1	Strengthening of Organisation at Supervisory level.	1.30	1.30	1.30	1.30	1.30	6.50
2	Grant to A.N.S. Institute ..	1.78	2.00	2.00	..	..	7.78
3	Town Planning Cell ..	1.70	1.70	1.70	1.70	1.70	8.50
4	Land Acquisition Cell ..	1.10	1.10	1.10	1.10	1.10	5.50
	<b>TOTAL A ..</b>	<b>5.88</b>	<b>6.10</b>	<b>6.10</b>	<b>4.10</b>	<b>4.10</b>	<b>26.28</b>
<i>(B) New Schemes—</i>							
1	Regulation of new markets ..	2.40	4.50	6.60	7.68	7.75	28.93
2	Development of market (cost of land)	60.00	60.00	20.00	1.00	..	1,41.00
3	(a) Establishment of State Laboratory in tribal area.	0.97	0.33	0.33	0.33	0.33	2.29
	(b) Opening of new grading units (additional 12 units each year).	3.00	3.48	3.96	4.44	4.92	19.80
4	Establishment of I. Centres (additional 20 centres each year).	0.60	1.20	1.80	2.40	3.00	9.00
5	Strengthening of Organisation at Supervisory level.	2.49	3.26	4.28	5.30	6.32	21.65
6	Training of personnel ..	1.94	0.97	0.87	0.72	0.27	4.77
7	Financial assistance to newly regulated markets.	0.40	0.35	0.35	0.18	..	1.28
8	(a) Loan to the Agricultural Marketing Board for Establishment, Contingencies etc.	8.00	8.00	8.00	8.00	8.00	40.00
	(b) Loan to Board for construction of Office building.	3.00	2.00	..	..	..	5.00
	<b>TOTAL (B) ..</b>	<b>82.80</b>	<b>84.09</b>	<b>46.19</b>	<b>30.05</b>	<b>30.59</b>	<b>273.72</b>
	<b>TOTAL (A)+(B)</b>	<b>88.68</b>	<b>90.19</b>	<b>52.29</b>	<b>34.15</b>	<b>34.69</b>	<b>300.00</b>

*Ware Housing—*

12. Under Warehousing Corporations Act, 1962, the authorised capital of the Bihar State Warehousing Corporation can be fixed up to Rs. 200 lakh. The authorised capital of the Bihar State Warehousing Corporation is Rs. 100 lakh. The subscribed capital of the Corporation is, however, Rs. 56 lakh only. The existing storage capacity of the Corporation is 82,000 M.T. The Corporation unfortunately does not have any godown of its own and all storage facilities have been obtained on hire. By the end of the Fourth Plan period the storage capacity of Corporation is likely to go up to 10 lakh M.T.

13. The existing storage facilities of the Corporation is far too inadequate. There is a proposal to increase the storage facilities to 2 lakh M.T. during the Fifth Plan period. The programme of the Corporation visualises construction of its own godowns of a total capacity of 75,000 M.T. and increase of the hired storage facilities to 1.25 lakh M.T. Thus, it is proposed to double the storage capacity during the Fifth Plan period. The proposed doubling of the storage capacity of the Corporation calls for strengthening the share-capital base of the Corporation and for that a provision of Rs. 50 lakh has been made in the Plan for share-capital contribution of the State Government to the Corporation.

## CHAPTER XI

### COOPERATION

For making Cooperatives viable entities responsive to the needs of the farmers, the workers and the consumers, the Fifth Five Year Plan of the state visualise consolidation and activation of the Cooperative Societies of the State. The objective is to make these basic institutions alive to meet the specific needs of the weaker sections of the Society. Special stress is also being given to rejuvenation of the cooperative societies of economically backward areas and tribal areas.

#### **The Fourth Plan Experience :**

2. The Fourth Plan outlay on cooperation was Rs. 720 lakhs. Against this outlay, expenditure during the Fourth Plan is anticipated to be Rs. 650.52 lakhs. However, against the fourth plan target for giving Rs. 45 crores as short-term and Medium-term credit to farmers the likely achievement is expected to be only Rs. 23 crores. The main reasons for the poor financing through Cooperatives are mounting overdue inadequate membership and lack of adequate members share capital. The coverage of credit facilities was only 37 per cent of agricultural families and 40 per cent of the borrowing members by the end of the Fourth Plan. To remove these deficiencies the following major steps have been taken for reduction of overdue so far as short term and medium term financing is concerned :—

- (i) Under the existing crop loan system the primary Agricultural Credit Societies become eligible for raising loans from the Central Cooperative Banks only if they realise 65 per cent or above of the demand. Failure of crops due to drought or flood has, by and large, affected their financial capability making them ineligible for fresh loans. As a result, the non-defaulting or new members also do not get loans. At the instance of the Reserve Bank of India the procedure has been relaxed enabling the banks to allow fresh loans to the non-defaulting or new members irrespective of the default of societies to the banks.
- (ii) The normal as well as special bad debt reserves of the Central Cooperative Banks and societies are being strengthened.
- (iii) The agricultural credit stabilisation fund at the levels of the Apex and the Central Cooperative Banks is being strengthened for enabling the agriculturists to raise fresh loan in time for next crop by converting their short-term loan into medium-term loan in the event of natural calamities.
- (iv) The Reserve Bank of India has been moved for conversion of the S.T. loans of Rs. 5.00 crores into M.T. loans under the State guarantee.
- (v) Concerted effort is being made through an intensive drive for collection of Cooperative dues.
- (vi) Under the relaxed procedure for financing the agriculturists joining the High Yielding Varieties Programme, the normal limit of mortgage-free S.T. and M.T. loans has been raised from Rs. 750 to Rs. 1,250 per crop, where as a special limit of Rs. 2,000 has been fixed for the districts of Purnea and Saharsa provided the Medium Term loan outstanding does not exceed Rs. 500.

#### **Fifth Plan objectives :**

3. During the Fifth Plan it is proposed to cover 73 per cent of the agricultural families and 75 per cent of borrowing members. Further more, it is proposed to distribute Rs. 60 crores as short term loan advances and Rs. 10 crores as Medium term loan advances to farmers.

4. The Fourth Plan experience has revealed that Primary credit institutions can flourish only if their link with marketing cooperatives is successfully established. It is with the end in view that it is proposed in the Fifth Plan to market agriculture produce of the value of Rs. 25 crores as against the Fourth Plan performance of only Rs. 15 crores. As against one sugar factory in cooperative sector by the end of Fourth Plan, two more sugar factories

would be established during the Fifth Plan. Similarly, as against 17 Rice Mills in Co-operative sector, the Fifth Plan envisages to establish 20 more Cooperative Rice Mills. 33 cold storage units in the cooperative sector would be available by the end of the Fifth Plan as against 15 by the end of the Fourth Plan.

5. The anticipated facilities of cooperative storage by the end of the Fourth Plan will be 286 marketing godowns, having storage capacity for about 60,000 tonnes and construction of 763 rural godowns with the storage capacity of about 76,000 tonnes. During the Fifth Plan it is proposed to increase storage facilities to 536 marketing godowns having capacity of about 1,50,000 tonnes and 1,603 rural godowns having capacity of about 1,60,000 tonnes would be constructed.

6. In view of rise in prices of consumer articles, cooperatives of the State have attempted to market them both in rural and urban areas so as to give some relief to the society. By the end of the Fourth Plan, consumer articles worth Rs. 7 crores and Rs. 15 crores would get sold by cooperative consumer societies in rural and urban areas respectively. During the Fifth Plan it is visualised to market consumer articles worth Rs. 15 crores in rural areas and worth Rs. 25 crores in urban areas.

7. During the Fifth Plan, it is proposed to provide Rs. 1418.70 lakhs on the following programmes :—

			(Rs. in lakhs.)
(i)	Cooperative Agricultural Credit ...	...	5,99.44
(ii)	Cooperative Marketing/processing/storage ...	...	5,32.04
(iii)	Consumer Cooperation.		54.05
(iv)	Other types of Cooperative activities.		94.48
(v)	Cooperative training and education.		39.75
(vi)	Special schemes for tribal areas.		48.94
(vii)	Cooperative administration ...	...	50.00
TOTAL ...			14,18.70

This financing does not include Rs. 5,81.30 lakhs which is visualised to be made available exclusively for the schemes of Reserve Bank of India during the Fifth Plan.

8. These schemes are briefly described below :—

#### **Cooperative Agr,cultural Credit (Rs. 5,99.44 lakh)**

(a) *Managerial subsidy to Primary Agricultural Credit Societies (Rs. 2,25.00 lakh).*—Nearly 16,500 potentially viable units of Primary Agricultural Credit Societies have emerged through the process of amalgamation of uneconomic units, organization of fresh units, delimitation of area of operation etc. Existing management of these units has been financially too weak to engage a full time manager. It is therefore, proposed to reimburse the managerial subsidy at the rate of Rs. 200 per month per manager by contributing to the cadre fund from the State Plan. The concerned society would be asked to additionally contribute Rs. 50 per month to this fund per manager from its own resources. However for such assistance, only such units would be chosen which fulfill the prescribed criteria in respect of the size of members share capital, step up of credit business and coverage of agriculturist families. The prescribed criteria in tribal areas will be naturally less exacting.

(b) *Managerial subsidy to Central Cooperative Banks for their branches (Rs. 10.39 lakh).*—There is a great need for opening of such branches at suitable places so as to keep pace with the increased agricultural financing. These banks are given managerial subsidy for meeting the cost of pay etc. of one accountant and one cashier per branch on a tapering rate for 3 years. It is proposed to open 65 such branches during the Fifth Plan for which the managerial subsidy will be given to Banks on the tapering rates laid down.

(c) *Assistance to weak Central Cooperative Banks (Rs. 17.05 lakh)*—It is proposed to provide Rs. 17.05 lakh for giving assistance by way of subsidy to such banks whose bad debts, accumulated losses and other overdues over three years reach 50 per cent of their owned funds.

(d) *Out right grants for special bad debt reserves (Rs. 16 lakh).*—This scheme aims at liquidating the bad and doubtful debts on account of advance made to the weaker sections of the community. The rates of such grants are 12 per cent and 40 per cent of the extra advance made during the cooperative year over and above the advance of the preceding years so far as the societies and the Central Cooperative Banks are concerned respectively. It is proposed to provide Rs. 12 lakh and Rs. 4 lakh respectively for the cooperative societies and the Central Cooperative Banks under this scheme.

(e) *Managerial subsidy to Land Development Bank (Rs. 36 lakh).*—It is proposed to open branches of the Land Development Bank during the Fifth Plan Period for facilitating the availability of long term credit to agriculturists. For this purpose, it is proposed to provide Rs. 36 lakhs for giving managerial subsidy to the L.D. Bank.

(f) *R. B. Is. long-term loans to State Government for investment in the share capital of Cooperative Credit Institutions (Rs. 275 lakh).*—Under this head, sums of Rs. 200 lakh, Rs. 25 lakh and Rs. 50 lakh are proposed to be given as share capital contribution to as many as 2,000 Primary Agricultural Credit Societies, the Central Cooperative Banks and the State Cooperative Land Development Bank respectively during the Fifth Plan period. It is however, anticipated that more funds would be forthcoming from the Reserve Bank of India's L.T.O. fund, and in that event the overall ceiling will go up to the extent of additional availability. It is therefore, additionally, proposed to allocate a sum of Rs. 5,81. lakh under this head.

(g) *Contribution to the share capital of societies to be given as medium term loan to members (Rs. 10 lakh).*—In order to strengthen the cooperative system, it is proposed to advance of Rs. 10 lakh as medium-term loans to individual members for purchase of shares in Primary Societies which will, in turn, contribute to the share capital of the Central Cooperative Banks.

(h) *Long term loan on deposit to Central Cooperative Bank for maintaining non-overdue cover (Rs. 10 lakh).*—A number of Central Cooperative Banks are unable to utilise the short-term credit limit sanctioned to them by the R.B.I. as they do not satisfy the non-overdue cover requirements. It is therefore, proposed to help such Banks by providing long-term loans or deposits to enable them to maintain adequate non-overdue cover. A sum of Rs. 10 lakh is proposed to be spent on this item during Fifth Plan.

#### 9. Marketing, processing and storage (Rs. 5,32.04 lakh)

(a) *Marketing (Rs. 1,22.60 lakh).*—To organise and strengthen marketing societies in order to meet the requirement of trading pattern envisaged by the Government take-over of wholesale trade in foodgrains, it is proposed to set up 200 new Vyapar Mandal Sahyog Samities by investing Rs. 80.00 lakh during Fifth Five Year Plan period. It is also proposed to give managerial subsidy of the order of Rs. 25.20 lakh to V.M.S.S. to enable them to participate in the procurement of foodgrains. A sum of Rs. 10.00 lakh has been envisaged as the State Government's contribution towards the share capital of the Bihar State Marketing Union (Biscomaun) in order to enable it play its role effectively during the Fifth Plan period. A provision of Rs. 2 lakh has also been proposed as price fluctuation fund for encouraging outright purchase of agricultural produce by the marketing societies. It is also envisaged to grant loans to 7 Vyapar Mandals which are running rice mills, for purchase of trucks. This facility is also proposed to be extended to 4 fruit processing societies of the State. On this scheme, a sum of Rs. 5.40 lakhs is earmarked to be spent.

(b) *Processing (other than sugar factories Rs. 2,11.56 lakh).*—It is proposed to set up following types of processing units by investing Rs. 2,11.56 lakh in providing 20 percent contribution of their total block cost :—

	(Rs. in lakh)
(i) 22 cold storages ... ..	33.00
(ii) 20 Modern Rice Mill ... ..	30.00
(iii) Modernisation of Rice Mill ... ..	17.50
(iv) Solvent Extraction Unit ... ..	8.16
(v) Jute Mills ... ..	60.60
(vi) Managerial Subsidy to processing Units ... ..	2.10
(vii) Processing Units (other than cold storages and Rice Mill)	60.30

(c) *Cooperative Sugar Factories.*—A sum of Rs. 1,00.00 lakh is proposed to be given as share capital contribution to the cooperative sugar factories coming up at Raiyyam and Warsaliganj.

(d) *Cooperative Storage (Rs. 97.88 lakhs)*—It is proposed to provide subsidy for cooperative godowns as follows :—

	(Rs. in lakh)
(a) Construction of Godowns of 400 tonnes capacity (200 Vyapar Mandals.)	45.00
(b) Construction of Additional Godowns of 200 tonnes capacity (50 Vyapar Mandals.)	5.63
(c) Construction of rural godowns of 100 tonnes (capacity 840 M.P.C.S.)	47.25

**Consumer Cooperation (Rs. 54.05 lakh) :**

10. In order to hold the price line and to effect distribution of controlled goods to consumers, it is proposed to activities cooperative societies to take up this business on a large scale, both in the urban as well as in rural areas.

(a) It is proposed to give Rs. 10 lakh as managerial subsidy and financial assistance in shape of share capital to one hundred Vyapar Mandal Sahayog Samities in rural areas. Each of these Vyapar Mandal is would be given financial assistance at the rate of Rs. 10,000. Similarly each of these Vyapar Mandals would be asked to recruit one Accounts Clerk and one Sales man at the rate of Rs. 200 per month respectively. The estimated cost of this subsidy is Rs. 7.20 lakh. This assistance will be made available to the societies for three years only after which the societies are expected to attain a viability.

(b) The existing urban consumer cooperative societies are proposed to be strengthened and streamlined during the Fifth Plan period so as to enable them to do business in consumer articles efficiently. Creation of new districts has also necessitated recruitment of staff for the New Central Consumer Stores which would be opened. It is proposed to provide Rs. 18.05 lakh on the programme of opening of new-C.C. stores and Rs. 4 lakh on the strengthening of the existing C.C. Stores.

The Bihar State Wholesale Consumers Cooperative Federation which has the responsibility of distribution of controlled cloth in the State through the Central Consumer Stores and other cooperative societies, needs to be strengthened for the sake of viability and efficiency. It is proposed to contribute Rs. 3 lakh as share capital to this federation.

The Primary Consumer Stores are to be given managerial subsidy and financial assistance in shape of share capital in order to facilitate the distribution of controlled commodities. A sum of Rs. 7.20 lakh as managerial subsidy and a sum of Rs. 2 lakh as share capital for strengthening the borrowing capacity are proposed to be provided for 200 Primary Cooperative Stores.

The absence of godowns of the Central Consumer Stores adversely effects the business of the C.C. Stores. To meet this deficiency it is proposed to construct four godowns involving on expenditure of Rs. 0.60 lakh.

A sum of Rs. 2 lakh is also proposed to be allocated as share capital contribution to the Department stores during this period.

**Other types of cooperative Activities (Rs. 94.48 lakh)**

11. (a) *Cooperative Farming (Rs. 5 lakh).*—As a result of the implementation of Bihar Land Reforms (fixation of Ceiling Area and Acquisition of surplus land) Act, surplus land is likely to be made available for cooperative farming. It is proposed to provide following assistance to 20 cooperative Farming Societies during the Fifth Plan period :—

	(Rs. in lakh)
(i) Land Development loan at the rate of Rs. 20,000 each ...	4.00
(ii) Share Capital contribution at the rate of Rs. 5,000 each=	1.00
TOTAL ... ..	5.00

(b) *Labour Cooperative (Rs. 25.05 lakhs).*—In order to save the agricultural labourers, landless workers and other kind of labourers from the exploitation of the contractor and middlemen, and to ensure payment of reasonable wages, labour cooperatives have been organised. 220 such labour Cooperative Societies have been organised, in the State. These societies also require adequate fund for the contract business which they are called upon to undertake. It is proposed to spend Rs. 25.05 lakh on the following schemes covering labour cooperative societies :—

	(Rs. in lakh.)
(i) Share capital contribution to 40 Primary Labour Cooperative Societies at the rate of Rs. 20,000.	8.00
(ii) Managerial Subsidy to 40 societies ... ..	3.60
(iii) Share capital contribution to 5 District Labour Cooperative Unions.	1.50
(iv) Subsidy to District Labour Cooperative Union ...	0.45
(v) Share capital contribution to the apex State Labour Co-Federation.	2.00
(vi) Managerial subsidy to the State Labour Cooperative operative Federation.	1.50
(vii) Working Capital loan to Labour Cooperatives ...	8.00

(c) *Auto Rickshaw Driver Cooperative Societies (Rs. 12.90 lakh).*—It is proposed to organise 10 Auto-Rickshaw Driver Societies each having 15 auto rickshaw driver members during the Plan period. Government propose to give loan assistance of Rs. 8,000 only to each members of these societies being the estimated cost of one auto rickshaw. Also a sum of Rs. 3,000 annually is proposed to be given as managerial subsidy in a phased manner to each of these cooperative societies. During the Fifth Plan it is proposed to provide Rs. 12.90 lakh for these schemes.

(d) *Other types of Cooperatives (Rs. 51.53 lakhs).*—A sum of Rs. 51.53 lakh is proposed to be provided for the following types of Cooperative Societies :—

	(Rs. in lakh)
(i) Boat Traffic Cooperative Societies ... ..	1.00
(ii) Washermans Cooperative Societies ... ..	2.90
(iii) Barbers Cooperative ... ..	1.90
(iv) Toddy Tappers' Cooperatives ... ..	1.90
(v) Band Cooperatives ... ..	17.28
(vi) Housing Cooperatives ... ..	5.00
(vii) Unemployed Educated Cooperatives ... ..	14.75
(viii) Employers' Cooperative Credit and Thrift Societies ...	3.15
(ix) Other Special Types of Cooperative ... ..	3.65

#### Cooperative Training and Education (Rs. 39.75 lakh) :

12. This scheme aims at promoting understanding and awareness among the rural people for active participation in the cooperative movement It is proposed to spend Rs. 39.75 lakh on the following program :—

	(Rs. in lakh)
(a) Member Education Programme ... ..	20.00
(b) State Assistance to Bihar Cooperative Federation for publication and propaganda.	5.00
(c) Prizes, study tours, publicity, seminars propaganda etc. ...	1.25
(d) Publicity-cum-training programme in tribal areas ...	1.55
(e) Certificate Course Training of Paid Managers ...	9.45
(f) Repairs and maintenance of Buildings of Cooperative Training centres.	2.50

**Special Schemes for Tribal Areas (Rs. 48.94 lakh) :**

13. This scheme envisages provision of subsidy to scheduled Tribes members of Multi-purpose Cooperative Societies to the extent of 10 per cent of the share amount by the State Government. The remaining 70 per cent is expected to be raised by such members themselves. The rate of subsidy is Rs. 32 since 1972-73. Rs. 17.09 lakh is earmarked on this scheme during the Fifth Plan period as detailed below :—

Item.	Ranchi.	Hazari- bagh.	Palamau.	Dhanbad.	Singh- bhum.	Santhal Parganas.
1	2	3	4	5	6	7
1. Total no. of M.P.C.S. ...	1,006	943	552	243	721	1,091
2. Average membership per society.	108	125	101	259	146	86
3. Average tribal membership per society.	67	84	19	28	60	13
4. No. of Societies selected for doubling up the tribal membership.	400	200	200	100	200	400
5. No. of adivasis to be assisted by way of subsidy for enrolment as member of M.P.C.S.	26,800	2,800	3,800	2,800	12,000	5,200

Total outlay per adivasi at the rate of Rs. 32/-  $53,400 \times 32$ —Rs. 17,08,800  
or Rs. 17.09 lakh.

Over and above the above scheme, the following schemes involving an expenditure of Rs. 31.85 lakh are also proposed to be implemented in the tribal areas of the State :—

(Rs. in lakh)

(a) Grant to Central Cooperative Banks for bad-debt reserves	7.05
(b) Working capital loan at the rate of Rs. 10,000 to 40 lac growers Cooperative Societies.	4.00
(c) Working capital loan Rs. 10,000 to 65 Forest Labour Co-operative Societies.	6.50
(d) Working capital loan at the rate of Rs. 10,000 to 68 Labour Cooperative Societies.	6.80
(e) Loan for modernisation of lac making machinery to the Lac Federation.	5.00
(f) Share capital contribution to the Vegetable and fruit growers Cooperatives.	2.50

TOTAL ...	31.85
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**Strengthening of Departmental Organisation (Rs. 50 lakh) :**

14. In order to execute the programmes envisaged above, strengthening of the departmental organisation is necessary for which a sum of Rs. 40 lakh is proposed during the Fifth Plan period.



**Industrial Cooperative Societies (Rs. 75 lakh) :**

15. During the Fourth Plan the financial condition of a large number of industrial co-operatives in the State could not be improved. Presently, the main financing agencies for Industrial Cooperatives are the State Industries Department acting under to the State Aid to Industries Act., the State Bank of India and the State Cooperative Department. To identify the uneconomic and non-viable industrial cooperatives a survey of the existing dormant societies has been taken up. This identification survey is likely to be completed in the first year of the Fifth Five Year Plan. The reorganisation of industrial Cooperatives would be effected in a phased manner subsequently during the Fifth Plan by providing adequate assistance and regular technical guidance.

The members of these industrial cooperative societies mostly are very poor due to which they are not in position to raise adequate working capital. In view of this, a sum of Rs. 25 lakh is proposed to be given as working capital loan to as many as 500 Primary Industrial Cooperative Societies. Also it is proposed to provide Rs. 25 lakh in the shape of financial assistance to these Cooperatives on the following schemes :—

<i>(Rs. in lakh)</i>	
(i) Share Capital loan to Industrial Cooperatives at the rate of Rs. 20,000 each.	10.00
(ii) Managerial subsidy ... ..	6.00
(iii) Share-capital contribution to Bihar State Lac Marketing Federation Ltd. Ranchi.	7.50
(iv) Sare capital contribution to Leather and Tanners Workers Cooperative Unit Ltd., Patna.	1.50

It has also been proposed to set up 15 Pilot Industrial Units in the Chotanagpur Division, Santhal Parganas, Darbhanga and Muzaffarpur during the Fifth Plan. Half of 20 per cent of the total block cost requirement of such units is proposed to be provided in the State Plan and the remaining half is to be raised by the societies themselves. The rest 80 per cent of the requirement would be fourth-coming under the central sector schemes. It is proposed to provide Rs. 22.50 lakh on this scheme during the Fifth Plan. It is also proposed to provide Rs. 2.50 lakh on managerial subsidy to selected cooperative Banks for setting up industrial wings so as to enable them to appreciate the needs and problems of industrial cooperatives.

**Handloom (Rs. 125 lakh) :**

16. It has been envisaged to increase the production of handloom cloth from the present level of Rs. 5 lakh to Rs. 12.00 lakh by end of the Fifth Plan period. This will provide employment opportunity to about 10 lakh artisans and to about two thousand educated youths. This programme visualises an investment of Rs. 125 lakh during this period.

(a) With a view to face the competition with mill-made cloth and to increase the marketability of handloom cloth, a rebate of 5 per cent is allowed to the consumers through out the year and 10 per cent on special occasions. It has now been decided that rebate may be given to the Primary Weavers Cooperative Societies restricting it to only 45 days in a year on the sale of handloom goods at the rate of 10 per cent. It has been proposed to provide Rs. 15 lakh on this rebate facility.

(b) On the following schemes which also aim at boosting up the sale of handloom cloth a sum of Rs. 17.25 lakh is proposed to be provided :—

<i>(Rs. in lakh)</i>	
(i) Propaganda and Publicity ... ..	1.25
(ii) Setting up of 20 sales emproira in Industrial and important towns.	5.00
(iii) Regional Depots ... ..	2.50

(iv) Celebration of All-India Handloom week ... ..	0.50
(v) Mobile vans ... ..	2.00
(vi) Sample of handloom cloth to prospective buyers of handloom cloth.	0.50
(vii) Subsidy for participation in Exhibition and fairs ... ..	0.50
(viii) Setting up of 5 Pattern-Making Factorie ... ..	5.00

(c) The Handloom Weavers' Cooperative Societies of the State suffer from lack of adequate finance trained personnel and sophisticated machineries. These have affected the viability of the handloom products. To remove these deficiencies it is proposed to provide a Rs. 66.75 lakh on the following schemes :—

	<i>(Rs. in lakh)</i>
(i) Subsidy to offset the effect of low rate of interest on R.B.Is. loan.	1.50
(ii) Managerial assistance to selected Weavers' Cooperative Societies.	4.00
(iii) Supply of improved looms and accessories to 200 Weavers' Cooperative Societies at the rate of Rs. 2,500 each.	5.00
(iv) Subsidy for reorganization of the Bihar State Handloom Weavers Cooperative Union.	10.00
(v) Share capital loan to cotton Weavers' Cooperative Societies.	5.00
(vi) Working capital loan to Weavers' Cooperative Societies	7.00
(vii) Share capital loan to Wool Weavers Cooperative Societies (at the rate of Rs. 75 per loom for 2,000 looms.)	1.50
(viii) Share capital loan to Silk Weavers Cooperative Societies (at the rate of Rs. 100 per loom for 1,750 looms.)	1.75
(ix) States participation in the share capital of the Bihar Handloom Weavers Cooperatives.	10.00
(x) State assistance to weavers to take up higher training...	0.50
(xi) Award of prizes to Weavers Cooperative Societies.	0.50
(xii) Subsidy on purchase of yarn of Weavers' Cooperative Societies.	9.00
(xiii) Reorganization of two industrial Handloom Weavers Cooperative Societies at Biharsharif and Madhubani.	3.00
(xiv) Loan Housing Colony of Weavers (100 houses for poor weavers.)	8.00

(d) The Bihar State Cooperative Spinning Mill at Mokameh is the only venture in the State on Cooperative basis which supplies yarn to the weavers and Weaver's Cooperative Societies of the State. Due to financial difficulties the Mill had to remain closed from August, 1969 till it was taken over by the National Textile Corporation, Government of India on 25th October, 1972. With a view to meeting its expansion programme a sum of Rs. 25- lakh is proposed to be provided during the Fifth Plan period.

(e) In order to execute the above programmes, some strengthening of the headquarters organisation is required for which a provision of Rs. 1 lakh is proposed.

ANNEXURE II.  
FIFTH FIVE YEAR PLAN.  
PHYSICAL TARGETS AND ACHIEVEMENTS.

State—Bihar.

Serial no.	Item.	Unit.	Fourth Plan (Anticipated achievement 1973-74).	Fifth Plan Target (1978-79).
1	2	3	4	5
1	Number of Primary Agricultural Credit Societies at the end of the year	Number	16,500	16,500
2	Number of viable Primary Agricultural Credit Societies at the end of the year.	Number	372	16,500
3	Membership of Primary Agricultural Credit Societies at the end of the year.	Thousand	3,200	6,000
4	Coverage of agricultural families at the end of the year	Percent	37	73
5	Percentage of borrowing members	Percent	40	75
6	Short term loans advanced during the year	Rs. crores	20	60
7	Medium term loans advanced during the five years of the plan	Rs. crores	3	10
8	Long term loans advanced by land development banks during five years of the plan (including ordinary as well as special).	Rs. crores	13	60
9	Agricultural produce marketed by co-operatives during the year	Rs. crores	15	25
10	Number of co-operative processing units installed at the end of the year (commodity wise)—	Number	..	..
	(i) Sugar factories	..	1	3
	(ii) Rice Mills	..	17	37
	(iii) Dal Mills	..	1	1
	(iv) Cotton ginning and pressing	..	..	..
	(v) Jute bailing units	..	7	7
	(vi) Jute Mills	..	1	1
	(vii) Oil seeds units	..	..	..
	(viii) Fruit vegetable units	..	4	4
	(ix) Plantation crops units	..	..	..
	(x) Dairing Units	..	..	..
	(xi) Cold Storages	..	15	33
	(xii) Others	..	1	2
11	Fertilisers retailed by Co-operative during the year—	Rs. crores.		
	(i) Quantity in terms of material	Metric tonns.	200	325
	(ii) Value..	Rs. crores	16	50
	(iii) No. of Co-operative/retail fertiliser depot at the end of the year.	Number	147	160
12	Marketing godowns—			
	(a) Assisted up to the end of the year	Number	286	536
	(b) Constructed up to the end of the year	Number	286	536
	(c) Capacity up to the end of the year	'000 tonns	60.4	150.4
13	Rural godowns—			
	(a) Assisted up to the end of the year	Number	1,102	1,942
	(b) Constructed up to the end of the year	Number	763	1,603
	(c) Capacity up to the end of the year	'000 tonns	76.3	160.3
14	Distribution of consumer articles in rural areas during the year	Rs. crores	7	15
15	Retail sales of urban consumer co-operatives during the year	Rs. crores	15	25

ANNEXURE III.  
FIFTH FIVE YEAR PLAN COOPERATION.  
Programmewise Financial Outlays.

(Rs. in lakhs.)

Serial no.	Programme.	Fourth Plan.		Fifth Plan Outlay.
		Outlay.	Anticipated expenditure.	
1	2	3	4	5
<b>I. N.C.D.C. SCHEMES.</b>				
1	Co-operative Agricultural Credit .. .. .	2,45.55	5,41.62	5,99.44 +5,81.30*
2	Co-operative Marketing .. .. .	63.70	18.89	1,22.60
3	Co-operative processing other than Sugar Factories .. .. .	1,44.00	59.35	2,11.56
4	Co-operative Sugar Factories .. .. .	35.00	57.00	1,00.00
5	Co-operative Agricultural Supplies .. .. .	Nil	Nil	Nil
6	Co-operative Storage .. .. .	67.50	38.18	97.88
7	Co-operative distribution of consumer articles in rural areas .. .. .	16.10	8.98	17.20
8	Co-operative Administration) .. .. .	44.00	20.57	50.00
<b>II. No-N.C.D.C. SCHEMES.</b>				
9	Urban Consumer Co-operatives .. .. .	25.30	17.64	36.85
10	Co-operative Farming .. .. .	13.45	1.87	5.00
11	Co-operative Training and Education .. .. .	27.05	24.18	39.75
12	Other Type of Co-operatives .. .. .	18.35	23.03	89.48
13	Special Scheme for Tribal Areas .. .. .	20.00	17.17	48.94
	<b>TOTAL—COOPERATION) .. .. .</b>	<b>7,20.00</b>	<b>8,28.48</b>	<b>14,18.70</b> <b>+5,81.30*</b>
	<b>III. INDUSTRIAL COOPERATIVE .. .. .</b>	<b>33.95</b>	<b>16.35</b>	<b>75.00</b>
	<b>IV. HANDLOOM .. .. .</b>	<b>61.00</b>	<b>36.69</b>	<b>1,25.00</b>

\* Indicates additional resources from R.B.I.

ANNEXURE IV.  
FIFTH FIVE YEAR PLAN—COOPERATION.

Schemewise Outlays.

Name of the State—Bihar.

(Rs. in lakhs.)

Serial no.	Title of the Scheme.	Whether Continuing/new.	Fourth Plan.		Fifth Plan Outlay.
			Outlay.	Anticipated expenditure.	
1	2	3	4	5	6
<b>A. N.C.D.C. SCHEMES.</b>					
<b>I. COOPERATIVE AGRICULTURAL CREDIT.</b>					
1	Managerial subsidy to Primary Agriculture Credit Societies ..	Continuing ..	60.00	39.46	2,25.00
2	Managerial subsidy to Central Cooperative Banks—				
	(i) For supervisory staff .. .. .	Continuing ..	3.00	2.00	Nil
	(ii) For branches .. .. .	Continuing ..	12.00	7.58	10.39
3	Assistance to weak Central Cooperative Banks ..	Continuing ..	15.00	29.10	17.05
4	Outright grants for Special bad debt reserves—				
	(i) To Primary Agriculture Credit Societies ..	Continuing ..	13.50	13.43	12.00
	(ii) To C.C. Banks .. .. .	Continuing ..	4.50	3.50	4.00
5	Agricultural Credit (Relief and Guarantee) Fund ..	Continuing ..	10.00	Nil	Nil
6	Managerial subsidy to Land Development Banks—				
	(i) For Headquarters staff .. .. .	Continuing ..	4.27	2.34	4.00
	(ii) For branches .. .. .	Continuing ..	12.63	16.12	27.00
	(iii) For Kosi Scheme .. .. .	Continuing ..	10.65	9.17	5.00
	<b>TOTAL—CREDIT</b> .. .. .		<b>1,45.55</b>	<b>1,22.70</b>	<b>3,04.44</b>
<b>II. COOPERATIVE MARKETING.</b>					
1	Share capital contribution—				
	(i) To State Cooperative Marketing Union ..	Continuing ..	10.00	Nil	10.00
	(ii) To Primary Marketing Societies ..	Continuing ..	28.00	13.10	80.00
2	Managerial subsidy to Primary Marketing Societies ..	Continuing ..	5.70	1.59	25.20
3	Establishment of staff cadre of marketing societies ..	Continuing ..	3.00	Nil	Nil
4	Price Fluctuation Fund .. .. .	Continuing ..	9.00	Nil	2.00
5	Loan for purchase of transport vehicles ..	Continuing ..	8.00	4.20	5.40
	<b>TOTAL—MARKETING</b> .. .. .		<b>63.70</b>	<b>18.89</b>	<b>1,22.60</b>

ANNEXURE IV—*contd.*  
**FIFTH FIVE YEAR PLAN—COOPERATION,**  
**Schemewise Outlays.**

Name of the State—Bihar.

(Rs. in lakhs.)

Serial no.	Title of the Scheme.	Whether Continuing/new.	Fourth Plan.		Fifth Plan Outlay.
			Outlay.	Anticipated expenditure.	
1	2	3	4	5	6
<b>III. COOPERATIVE PROCESSING (OTHER THAN SUGAR FACTORIES.)</b>					
1	Modern Rice Mills .. .. .	Continuing ..	75.00	7.50	30.00
2	Cold Storages .. .. .	Continuing ..	54.00	19.70	33.00
3	Existing processing units .. .. .	Continuing ..	..	3.25	..
4	Hajipur Fruit Processing Unit .. .. .	Continuing ..	..	1.00	..
5	Existing Fruit Processing Unit .. .. .	Continuing ..	..	1.00	..
6	Modernisation of existing Rice Mills .. .. .	Continuing ..	12.00	13.50	17.50
7	Shellar Type Rice Mills .. .. .	Continuing ..	3.00	2.40	..
8	Dal Mill .. .. .	Continuing ..	..	1.00	..
9	Jute Mill .. .. .	Continuing ..	..	1.00	60.50
10	Solvent Extraction Units .. .. .	New ..	Nil	Nil	8116
11	Managerial subsidy to Processing Units .. .. .	New ..	Nil	Nil	2.10
12	Processing Units (other than Cold Storages and Rice Mills) .. .. .	Continuing ..	Nil	9.00	60.30
<b>TOTAL—PROCESSING .. .. .</b>			<b>1,44.00</b>	<b>59.35</b>	<b>211.56</b>
<b>IV. COOPERATIVE SUGAR FACTORIES.</b>					
1	Share capital contribution to Cooperative Sugar factories .. .. .	Continuing ..	35.00	57.00	1,00.00
<b>TOTAL—SUGAR FACTORIES .. .. .</b>			<b>35.00</b>	<b>57.00</b>	<b>1,00.00</b>
<b>V. COOPERATIVE STORAGE.</b>					
1	Construction of marketing godowns—				
	(i) 1,000 tonnes capacity .. .. .	Continuing ..	7.50	Nil	Nil
	(ii) 500 tonnes capacity .. .. .	Continuing ..	12.00	9.46	Nil
	(iii) 400 tonnes capacity .. .. .	New ..	..	..	45.00
	(iv) 200 tonnes capacity .. .. .	Continuing ..	28.00	15.13	5.63
2	Rural godowns .. .. .	Continuing ..	20.00	13.59	45.25
<b>TOTAL—STORAGE .. .. .</b>			<b>67.50</b>	<b>38.18</b>	<b>97.88</b>

ANNEXURE IV—contd.  
**FIFTH FIVE YEAR PLAN—COOPERATION.**  
**Schemewise Outlays.**

Name of the State—Bihar.

(Rs. in lakhs.)

Serial no.	Title of the Scheme.	Whether Continuing/new.	Fourth Plan.		Fifth Plan Outlay.
			Outlay.	Anticipated expenditure.	
<b>VI. RURAL CONSUMERS.</b>					
1	Additional Share capital contribution to Vyapar Mandals engaged in distribution of Consumers' articles in rural areas.	Continuing ..	10.50	6.70	10.00
2	Managerial subsidy .. .. .	Continuing ..	5.60	2.28	7.20
<b>TOTAL—RURAL CON;UMCR;</b>			<b>16.10</b>	<b>8.98</b>	<b>17.20</b>
<b>VII. COOPERATIVE ADMINISTRATION.</b>					
1	Additional Departmental Staff .. .. .	Continuing ..	44.00	20.57	50.00
<b>TOTAL—ADMINISTRATION</b>			<b>44.00</b>	<b>20.57</b>	<b>50.00</b>
<b>TOTAL—A. N.C.D.C. SCHEMES</b>			<b>5,15.85</b>	<b>3,25.67</b>	<b>9,03.68</b>

**B. NON-N.C.D.C. SCHEMES.****I. COOPERATIVE AGRICULTURAL CREDIT.**

1	R.B.I.'s long term loan to State Government for investment in the share capital of—				
	(i) Primary Agricultural Credit Societies .. .. .	Continuing ..	25.00	..	2,000 3,50.00
	(ii) Central Co-operative Banks .. .. .	Continuing ..	25.00	..	25.00 75.00
	(iii) State Cooperative Land Development Bank .. .. .	Continuing ..	50.00	..	50.00 1,00.00
	(iv) State Cooperat.ve Bank .. .. .	Continuing ..	..	..	Nil
<b>TOTAL</b>			<b>1,00.00</b>	<b>4,18.92</b>	<b>2,75.00 5,81.30*</b>
2	Contribution to the share capital of societies to be given as medium term loan to members.	New ..	..	..	10.00
3	Long term loan or deposit to Central Cooperative Bank for maintaining non-overdues cover.	New ..	..	..	10.00
<b>TOTAL—CREDIT</b>			<b>Nil</b>	<b>Nil</b>	<b>20.00</b>

\*Indicates additional resources from R.B.I.

ANNEXURE IV—*contd.*  
**FIFTH FIVE YEAR PLAN—COOPERATION.**  
**Schemewise Outlays.**

Name of the State—Bihar.

(Rs. in lakhs.)

Serial no.	Title of the Scheme.	Whether Continuing/new.	Fourth Plan.		Fifth Plan Outlay.
			Outlay.	Anticipated expenditure.	
1	2		4	5	6
<b>II. URBAN CONSUMERS.</b>					
1	Tetail Units (400 sft. floor area)	Continuing	4.73	0.85	Nil
2	Large sized retail units	Continuing	10.66	1.94	Nil
3	Department Store	Continuing	1.27	8.00	2.00
4	Consumers Industries	Continuing	1.38	1.31	Nil
5	University Stores	Continuing	5.43	1.05	Nil
6	College Stores	Continuing	0.22	0.05	Nil
7	Public Relation member education Programme	Continuing	0.50	0.12	Nil
8	Strengthening of State Consumer's Federation	Continuing	1.00	4.20	3.00
9	Central Consumers Cooperative Stores—				
	(a) Existing units—				
	(i) Share capital cottribution	New	..	..	4.00
	(b) 13 New Units—				
	(i) Share capital contribution at the rate of Rs. 0.80 lakh each.	New	..	..	10.40
	(ii) Managerial subsidy	New	..	..	3.75
	(iii) Loan/Subsidy for furniture and fixtures at the rate of Rs. 30,000 each (Rs. 22,500 loan and Rs. 7,500 subsidy).	New	..	..	3.90
10	Primary Consumers Stores—				
	(i) Share capital contribution	New	..	..	2.00
	(ii) Managerial subsidy	Continuing	..	10.2	7.20
11	Construction of godowns by Consumers Cooperative Stores..	New	..	..	0.60
<b>TOTAL—URBAN CONSUMERS</b>			<b>25.30</b>	<b>17.64</b>	<b>3 6.85</b>
<b>III. COOPERATIVE FARMING.</b>					
1	Land development loan	Continuing	9.60	1.28	4.00
2	Share capital contribution	Continuing	0.96	0.20	1.00
3	Loan/subaidy for godown-cum-cattle shed	Continuing	2.40	0.35	Nil
4	Managerial subsidy	Continuing	0.49	0.04	Nil
<b>TOTAL—FARMING</b>			<b>13.45</b>	<b>1.87</b>	<b>5.00</b>



ANNEXURE IV—*contd.*

## FIFTH FIVE YEAR PLAN—COOPERATION.

## Schemewise Outlays.

Name of the State—Bihar.

(Rs. in lakhs.)

Serial no.	Title of the Scheme.	Whether Continuing/new.	Fourth Plan.		Fifth Plan Outlay.
			Outlay.	Atticipated expenditure.	
1	2	3	4	5	6
IV. COOPERATIVE TRAINING AND EDUCATION.					
1	Member education programme .. ..	Continuing ..	18.05	16.70	20.00
2	Assistance to Bihar Cooperative Federation .. ..	Continuing ..	4.25	3.09	5.00
3	Prizes, study tours, publicity etc. .. ..	Continuing ..	1.25	0.29	1.25
4	Publicity-cum-training programme in Tribal districts .. ..	Continuing ..	1.55	0.16	1.55
5	Certificates course training of paid managers .. ..	Continuing ..	1.70	2.92	9.45
6	Repairs and maintenafce of buildings of Coopertive Training Institutes.	Continuing ..	0.25	1.02	2.50
TOTAL—TRAINING AQD EPUCATION .. ..			27.05	24.18	39.75
V. OTHER TYPES OF COOPERATIVES.					
1	Labour Cooperatives—				
	(a) Primaries—				
	(i) Share capital contributon at the rate of Rs. 20,000 each.	Continuing ..	5.00	1.00	8.00
	(ii) Managerial subsidy .. ..	Continuing ..	2.21	0.74	3.60
	(iii) Working capital loan .. ..	New ..	..	..	8.00
	(b) District Union—				
	(i) Share capital contribution at the rate of Rs. 30,000 each.	Continuing ..	0.50	0.20	1.50
	(ii) Managerial subsidy .. ..	Continuing ..	0.17	0.14	0.45
	(c) Apex Union—				
	(i) Share capital contribution to Stâte Lzabour Co-operative Federation.	Continuing ..	..	0.70	.200
	(ii) Managaerial subsidy .. ..	Continuing ..	..	..	1.50
2	Auto-Rickshaw Drivers Cooperatives—				
	(i) Loan for purchase of rickshws .. ..	Continuing ..	4.50	3.60	12.00
	(ii) Managerial subsidy .. ..	Continuing ..	0.24	0.13	0.90
3	Washermens Cooperatives—				
	(i) Working capital loan at the rate of Rs. 10,000 each	Continuing ..	1.50	0.60	1.00
	(ii) Managerial subsidy .. ..	Continuing ..	0.01	0.07	0.90
	(iii) Share capital contribution at the rate of Rs. 5,000 each.	New ..	..	..	0.50

ANNEXURE IV—*contd.*

## FIFTH FIVE YEAR PLAN—COOPERATION.

Name of the State—Bihar.		Schemewise Outlays.			(Rs. in lakhs.)		
Serial no.	Title of the Scheme.	Whether Continuing/new.	Fourth Plan.		Fifth Plan Outlay.		
			Outlay.	Anticipated expenditure.			
1	2	3	4	5	6		
	(iv) Block capital loan at the rate of Rs. 5,000 each ..	New	..	..	0.50		
4.	Barber's Cooperatives—						
	(i) Share capital contribution at the rate of Rs. 5,000 each.	New	..	Nil	0.50		
	(ii) Working capital loan at the rate of Rs. 5,000 each	New	..	Nil	0.50		
	(iii) Managerial subsidy	New	..	Nil	0.90		
5.	Toddy Tapper's Cooperatives						
	(i) Share capital contribution .. ..	New	..	Nil	0.50		
	(ii) Working capital loan .. ..	New	..	Nil	0.50		
	(iii) Managerial subsidy .. ..	New	..	Nil	0.90		
6	Band Cooperatives—						
	(i) Subsidy to Chamars for enrolment as members of Chamar Band Cooperatives at the rate of Rs. 11 each.	New	..	Nil	0.48		
	(ii) Subsidy for purchase of dress and musical instruments.	New	..	Nil	16.80		
7	Boat Traffic Cooperatives—						
	(i) Working capital loan at the rate of Rs. 10,000 each	Continuing	..	1.00	1.00		
	(ii) Managerial subsidy .. ..	Continuing	..	0.40	0.05		
8	Share capital contribution to apex Bihar State Cooperative House Construction Financing Society Ltd., Patna.	Continuing	..	Nil	5.00		
9	Share capital contribution to un-employed Educated Cooperatives.	Continuing	..	Nil	12.50		
10	Managerial subsidy to unemployed Educated Cooperative ..	Continuing	..	Nil	2.25		
11	Motor Transport Cooperatives—						
	(i) Working capital loan .. ..	Continuing	..	2.50	0.50		
	(ii) Managerial subsidy .. ..	Continuing	..	0.09	Nil		
12	Employees Cooperative Credit and Thrift Societies—						
	(i) Share capital contribution .. ..	New	..	Nil	1.50		
	(ii) Working capital loan .. ..	New	..	Nil	1.50		
	(iii) Managerial subsidy .. ..	New	..	Nil	0.15		
13	Other Special Type of Cooperatives—						
	Working capital loan share capital loan and Managerial subsidy	New	..	Nil	3.65		
		TOTAL—OTHERS	..	18.35	23.03	89.48	

ANNEXURE IV—contd  
FIFTH FIVE YEAR PLAN—COOPERATION.

Name of the State—Bihar.		Schemewise Outlays.		(Rs. in lakhs.)		
Serial no.	Title of the Scheme.	Whether Continuing/new.	Fourth Plan.		Fifth Plan Outlay.	
			Outlay.	Anticipated expenditure.		
1	2	3	4	5	6	
<b>VI. SPECIAL SCHEME FOR TRIBAL AREAS.</b>						
1	Subsidy to adivasis for enrolment as members of M.P.C.S. at the rate of Rs. 32 each.	Continuing ..	2.60	4.86	17.09	
2	Grant to C.C. Banks for bad debt reserves .. ..	Continuing ..	11.05	2.00	7.05	
3	Working capital loan to Lac growers Cooperative Societies at the rate of Rs. 10,000 each.	Continuing ..	0.50	1.00	4.00	
4	Working capital loan to Forest Labour Cooperative Societies Rs. 10,000 each.	Continuing ..	.215	1.95	6.50	
5	Working Capital loan to Labour Cooperative Societies at the rate of Rs. 10,000 each.	Continuing ..	0.50	1.55	6.80	
6	Loan to Lac Marketing Federation for modernisation of Lac machineries.	New ..	Nil	Nil	5.00	
7	Share Capital contribution to vegetable and Fuirt growers Co-operative Societies at the rate of Rs. 5,000 each.	New ..	Nil	Nil	2.50	
8	Rickshw-pullers Cooperative Societies—					
	(i) Working capital loan .. ..	Continuing ..	3.00	5.70	Nil	
	(ii) Managerial subsidy .. ..	Continuing ..	0.20	0.11	Nil	
	<b>TOTAL—SPEC,AL SCHEME</b> ..		<b>20.00</b>	<b>17.17</b>	<b>48.94</b>	
	<b>TOTAL—NON-N.C.D.C. SCHEMES (B)</b> ..		<b>2,04.15</b>	<b>5,01.82</b>	<b>5,15.02</b> <b>+5,81.30*</b>	
	<b>GRAND TOTAL—COOPERATION (A+B)</b> ..		<b>7,20.00</b>	<b>8,28.48</b>	<b>14,18.70</b> <b>+5,81.30*</b>	
<b>INDUSTRIAL COOPERATIVES.</b>						
1	Working capital loan to Primary Industrial Cooperative Societies.	Continuing ..	12.00	7.65	25.00	
2	Share capital loan to Primary Industrial Cooperative Societies	Continuing ..	6.00	4.50	10.00	
3	Managerial subsidy to Primary Industrial Cooperative Societies.	Continuing ..	3.95	1.80	6.00	
4	Share capital contribution to Bihar State Cooperative Lac Marketing Federation Ltd., Ranchi.	Continuing ..	4.00	2.00	7.50	
5	Share capital contribution to Leathers and Tanners Workers Cooperative Union.	Continuing ..	8.00	0.40	1.50	
6	Managerial subsidy to selected Central Cooperative Banks for setting up industrial wings.	New ..	..	..	2.50	
7	Share capital contribution to selected Industrial Cooperatives of Technicians/Engineers for production of mass consumption goods with employment potential.	New ..	..	..	22.50	
	<b>TOTAL—INDUSTRIAL COOPERATIVES</b> ..		<b>33.95</b>	<b>16.35</b>	<b>75.00</b>	

\*Indicates additional resources anticipated from Reserve Bank of India (L) Ffnd.

## ANNEXURE IV—contd.

## FIFTH FIVE YEAR PLAN—COOPERATION.

## Schemewise Outlays.

Name of the State—Bihar.

(Rs. in lakhs.)

Serial no.	Title of the Scheme.	Whether Continuing/new.	Fourth Plan.		Fifth Plan Outlay.
			Outlay.	Anticipated expenditure.	
HANDLOOM.					
1	Rebate or sale of Handloom Cloth .. ..	Continuing ..	10.00	14.30	15.00
2	Propoganda and Publicity .. ..	Continuing ..	1.00	0.80	1.25
3	Award of Prizes .. ..	Continuing ..	0.50	0.25	0.50
4	Sales Emporia .. ..	Continuing ..	0.40	0.60	6.00
5	Regional Depots .. ..	Continuing ..	0.15	..	2.50
6	Mobils vans .. ..	Continuing ..	7.25	1.25	2.00
7	Sample of Handloom Cloth .. ..	Continuing ..	0.60	0.20	0.50
8	Supply of improved looms and accessories to Cotton W.C.S.	Continuing ..	2.50	0.70	5.00
9	Subsidy to offset the effect of law interest of Reserve Bank of Industries loan.	Continuing ..	1.00	1.55	1.50
10	Managerial Assistance to W.C.S. .. ..	Continuing ..	3.00	1.05	4.00
11	Loan for Housing Colony of W.C.S. (Weaver's Co operative Society)	Continuing ..	2.00	..	8.00
12	Celebrations of All India Handloom Week .. ..	Continuing ..	0.50	0.50	0.50
13	Subsidy for reorganisations of the Bihar State Handloom Weaver Cooperative Union.	New ..	..	..	10.00
14	Share Capital Loans to Cotton W.C.S. .. ..	Continuing ..	7.50	1.06	5.00
15	Working Capital Loan to Cotton W.C.S. .. ..	Continuing ..	6.00	..	7.00
16	Loan for expansion of Spinning Mills.. ..	Continuing ..	3.40	9.62	25.00
17	Share Capital Loans to Wool W.C.S... ..	Continuing ..	0.75	0.10	1.50
18	Share Capital loan to Silk W.C.S. .. ..	Continuing ..	9.00	0.75	1.75
19	State's participation in the shares of the Bihar State Handloom W.C. Union.	Continuing ..	5.00	4.71	10.00
20	State's Assistance to Weavers to take up higher training in Handloom Technology.	Continuing ..	7.00	..	0.50
21	Subsidy for participation in fair / exhibition .. ..	Continuing ..	1.50	0.22	0.50
22	Pattern Making Factories .. ..	Continuing ..	..	..	5.00
23	Reorganisation of Industrial Handloom W.C.S. at Biharsharif and Madhubani.	New ..	..	..	3.00
24	Ministrial staff at Headquarters .. ..	New ..	..	..	1.00
TOTAL—HANDLOOM			61.00	36.69	125.00

## CHAPTER XII

### COMMUNITY DEVELOPMENT

The Community Development Blocks are the primary units of field administration and development activities in the State. The State is divided into 587 Blocks, which are partly in stage II and mostly in stage III (i.e. post stage II). At present 166 Blocks are in stage II and 121 blocks are in stage III. After the lapse of second year of the Fifth Five Year Plan, all the Blocks of the State will be in stage III. While for the first two stages namely stage I and II, a schematic ceiling of Rs. 12 lakhs and Rs. 5 lakhs respectively is earmarked for the developmental activities of the Block, no such ceiling has so far been conceived for post stage II Block. However, it is expected that to sustain the developmental activities, funds would be made available to stage III Blocks, by the concerned Development Departments.

2. Against the requirement of Rs. 1385 lakhs, an outlay of Rs. 1200 lakhs only was fixed for the Community Development Programme during the Fourth Five Year Plan. It is anticipated that by the end of the Fourth Plan Rs. 1146 lakhs would be spent on this sector. With the limited financial resources, Community Development Programme has continued to generate local initiative and voluntary action by transmitting knowledge to villagers in different fields of activities. A large number of drinking wells, Irrigation wells etc. have been constructed with peoples' contribution. However, development activities have suffered serious set back in the post stage II Blocks due to non-availability of funds.

3. On continuance of the schematic block budget for Block of stage II (on 1st April, 1974, 131 Blocks will be in stage II and their number will decrease to 90 by October, 1974, to 47 by October, 1975 and to nil by 1st April, 1976), a sum of Rs. 2,66.50 lakhs is required during the Fifth Five Year Plan. Even after conversion of the stage II blocks into the stage III Blocks, it is expected that a sizeable number of certain developmental schemes would spill over into the post stage II Block. The requirement of funds to sustain development activities of the stage III Block is large; however, an outlay of Rs. 94 lakhs only is proposed to be spent during Fifth Plan on the stage III Blocks. Thus a sum of Rs. 3,60.50 lakh is proposed to be spent as schematic ceiling on blocks as per following details :—

(Rs. in lakhs.)

Serial no.	Year.	Stage II	Stage III	Total.	
1	1974-75 ...	...	1,62.45	9.00	1,71.45
2	1975-76 ...	...	1,94.05	10.00	1,14.05
3	1976-77 ...	...	...	25.00	25.00
4	1977-78 ...	...	...	25.00	25.00
5	1978-79 ...	...	...	25.00	25.00
<b>TOTAL</b>		...	2,66.50	94.00	3,60.50

4. Although by the end of the first two year of the Fifth Plan all the Community Development Blocks in the State will have lapsed into stage III with very meagre allocations under this sector, it is visualised that the set up of the Community Development Blocks will be fully involved in the implementation of the Minimum Needs Programme for which sufficient allocations have been provided within the outlays of the respective sectors.

5. Out of 587 Blocks only 336 Blocks have Block Headquarters buildings. Construction work is in progress in 124 Blocks only. In remaining 127 Blocks, no construction work has yet been taken up. The estimate of the cost of the construction of Block Headquarter

buildings as estimated in 1958-59 has become out of date in view of the price rise. At the existing price level, the estimated cost of these building is about Rs. 3.30 lakhs per Block. On the basis of this estimate a sum of Rs. 6,69.51 lakh is required during Fifth Plan period. This comprises Rs. 2,50.15 lakhs on the completion of spill over work and Rs. 4,19.36 akh on the construction of remaining Blocks headquarter buildings for 127 Blocks. Against this requirement, Rs. 42 lakhs would be met during the Fourth Plan on work where construction is in progress. Thus, a sum of Rs. 727.50 akhs is actually required for this item of work during the Fifth Plan.

6. For carrying out various development programmes in the State, most of the Blocks of the State had been supplied jeeps years back. Most of these jeeps have outlived their life and have become unserviceable. Also about 46 Blocks could not be provided with jeeps so far due to paucity of fund. The execution of development programmes gets handicapped in absence of vehicles Keeping in view the limitation of resources, it is proposed to provide jeeps to nearly 33 per cent of the Blocks during the Fifth Plan. A sum of Rs. 66 lakhs is proposed on this item during Fifth Plan.

7. The Rural Engineering Organization of the Community Development Department at present looks after the work relating to construction of Block Headquarters buildings, minor irrigation work of he C.D. Department, construction of roads under the crash programme and repairs relating to these works. It also looks after the construction of feeder roads for agricultural markets. In the Fifth Five Year Plan the activities of the R.E.O. will extend very considerably. Development of Rural Roads under the Minimum Needs Programme and Construction of Family Planning and Health Sub-centre Buildings wil. cast heavy additional responsibility on this organization. It is, therefore, essential to strengthen it considerably. It is proposed to provide an outlay of Rs. 5,23.95 lakhs for the purpose during the Fifth Five Year Plan.

8. For accelerated development of the backward subdivision of Godda in the Santhal Parganas district, a samiti named Godda Samagra Vikas Samiti has been formed for implementing the various development programmes in the rural areas of this subdivision. This Samiti is to receive assistance in shape of Engineering Personnel etc. from AVARD. To help build its administrative set-up, it is proposed to give this Samiti on assistance of Rs. 11.06 lakhs during Fifth Plan.

9. The necessity for providing decent accomodation at a reasonable rate at the district headquarter for the common folk of the country-side who visit district towns has been felt since long. It has, therefore, been proposed to construct Kisan Bhavans at each district headquarters. For existing 32 district, this scheme would, therefore, entail an expenditure of Rs. 40 lakhs, at the rate of Rs. 1.25 lakhs per Kisan Bhavan. However, by the end of the Fourth Five Year Plan, such buildings would be constructed in 8 districts of the State involving an expenditure of Rs. 10 lakhs. For the remaining 24 district a sum of Rs. 30 lakhs is proposed to be provided during the Fifth Plan period.

10. A "Pilot Research Proect on Growth Centres" is in operation as a central sector scheme at Turkaulia Block in Champaran District. This scheme has been launched to evolve a broad research methodology of micro-level planning based on growth centres. It is proposed to take up one Block in Ranchi district for introducing similgr scheme therein. It is, therefore, proposed to provide a sum of Rs. 2 lakh is for thes purpos in the Fifth Plan.

11, In sum, under the Community Development sector following schemes are proposed to be executed during the Fifth Five Year Plan :—

	<i>(Rs. in lakh)</i>
(i) Schematic Programme for C.D. Block ... ..	360.50
(ii) Construction of C.D. Block Buildings ... ..	6,27.50
(iii) Provision of Vehicles for C.D. Blocks ... ..	66.00
(iv) Strengthening of Rural Engineering Organisation ... ..	5,23.95
(v) Assistance to Godda Samagra Vikas Samiti... ..	11.06
(vi) Construction of Kisan Bhavan ... ..	30.00
(vii) Pilot Research Project in a growth Centre at Ranchi ... ..	2.00
<b>TOTAL</b> ... ..	<b>1921.01</b>

12. *Applied Nutrition Programme.*—(a) Although this programme was started in this State in the year 1965-66, the coverage has not been significant. Till the year 1972-73, 69 Blocks have been brought under this programme, of which 33 are located in tribal areas. In only 15 Blocks this programme is in active operation and 54 Blocks have relapsed to post operative stage. 10 more blocks are being taken up in 1973-74.

The resources for executing this programme are the Special Central assistance, State's assistance and the assistance provided by the UNICEF. Under the pattern of assistance so far available, Central assistance is available at the rate of Rs. 34,000 per year per Block while the State's share comes to Rs. 50,000 per Block per year for execution of the various production components of the programme as noted below :—

Serial Item. No.					Amount per Block (Rs.)
1	Horticulture	...	...	...	11,000
2	Fisheries Development	...	...	...	14,000
3	Poultry Development	...	...	...	14,000
4	Minor Irrigation	...	...	...	12,000

The assistance from the UNICEF is in the form of supply of equipments, teaching aids and for meeting of cost of stipend for trainees and production of literature etc. The total UNICEF Assistance per Block during its five year period of operation comes to 27,500 Dollars

(b) *The Fourth Plan Experience.*—The following Statement will show the position of availability of Central Assistance, utilisation and percentage of utilisation on total assistance :—

Year.			Amount of Central Assistance.	Expend ture.	(Rs. in lakh) Percntage.
1969-70	...	...	17.05	13.20	77.4
1970-71	...	...	16.74	15.20	90.8
1971-72	...	...	15.00	15.25	75.00
1972-73	...	...	5.00	5.00	100.00

The following Statement will show the position of availability of assistance from the State in the different years :—

Year.				Amount.
				(Rs. in lakh)
1960—70	...	...	...	7.07
1970-71	...	...	...	11.94
1971-72	...	...	...	14.08
1972-73	...	...	...	12.05

(c) *The Fifth Plan Programmes.*—There are 587 Block in the State, out of which 79 will be brought under this programme by the end of the Fourth Plan. It is proposed to cover 100 more blocks at the rate of 20 Blocks per year. In view of the patter of assistance mentioned above, the Central Assistance will be of the order of Rs. 170 lakhs, the Central assistance will be of the order of Rs. 178 lakhs, State's assistance of the order of Rs. 2,55 lakhs and the U.N.I.C.E.F. assistance will be of the odrder of 27.5 lakhs dollars. So far as the State's assistance is concerned, requisite allocations will be made from the appropriate sectoral outlays.

## ANNEXURE I C.D.

## FIVE FIVE YEAR PLAN

## FINANCIAL OUTLAY

## Community development and Panchayati Raj

State—Bihar.

(Rs. in Lakhs)

Programme.	Fourth Plan.		Fifth Plan outlay.
	Outlay.	Anticipated expenditure.	
<b>1. COMMUNITY DEVELOPMENT—</b>			
(a) Investment .. .. .	1,58.61	1,15.42	6,93.50
(b) Current outlay .. .. .	10,40.39	10,30.58	9,27.51
<b>TOTAL—(a+b)</b> .. .. .	<b>12,00.00</b>	<b>11,46.00</b>	<b>1621.01</b>
<b>2. PANCHAYATI RAJ—</b>			
(a) Investment .. .. .	Nil	Nil	47.69
(b) Current outlay .. .. .	60.00	13.83	481.30
<b>TOTAL</b> .. .. .	<b>60.00</b>	<b>13.85</b>	<b>528.99</b>

## ANNEXURE II

## FIFTH FIVE-YEAR PLAN

## COMMUNITY DEVELOPMENT AND PANCHAYATI RAJ.

## Schemewise Outlays.

State Bihar.

(Rupees in Lakhs.)

Set ial no.	Title of the Scheme.	Whether continuing/ new.	Fourth Plan.		Fifth Plan outlay.
			Outlay.	Anticipated expenditure.	
1	2	3	4	5	6
1	Schematic Programme for Community Development	Continuing			360.00
2	Construction of Community Development Block buildings	Ditto	12,00.00	11,46.00	627.50
3	Provision of Vehicles for Community Development Blocks	Ditto			66.00
4	Strengthening of Rural Engineering Organisation	New			5,23.95
5	Assistance to Godda Samgra Vikas Samity	New			11.06
6	Construction of Kisan Bhawan	New			30.00
7	Pilot Research Project in a Growth Centre at Ranchi	New			2.00
	<b>TOTAL C.D.</b>		<b>1200.00</b>	<b>1146.00</b>	<b>1621.01</b>
<b>PANCHAYATS.</b>					
1	Matching incentive grant to Panchayats for additional Tax efforts	Continuing	25.73	12.72	4,00.00
2	Loans to Gran Panchayats for building up of remunerative assets.	Ditto	23.50	0.56	20.00
3	Strengthening of Panchayati Raj Training Centres	Ditto	4.21		45.31
4	Construction of Panchayat Bhawan	New			24.00
5	Creation of Publicity Wing in the Directorate	New			3.81
6	Publication of Panchayati Raj Journal and opening of Panchayati Rak Printing Press.	New			12.18
7	Provision of vehicles in Zila Parishads	New			23.69
	<b>TOTAL PANCHAYAT</b>		<b>53.44</b>	<b>13.28</b>	<b>528.99</b>



## CHAPTER. XIII

### PANCHAYATS.

An outlay of Rs. 60 lakhs was envisaged for this sector in the Fourth Five-Year Plan. As against this the anticipated expenditure will be of the order of Rs. 13.83 lakhs. The short-fall is mainly due to smaller allocations as a result of constraint on the resources. Only three schemes were in operation during the Fourth Plan period. One was of giving loans to Panchayats for building remunerative assets, the second was of giving matching incentive grants to encourage additional tax efforts by them and the third concerned strengthening of the Directorate. Anticipated expenditure on these three schemes is Rs. 0.56 lakh, Rs. 12.72 lakh and Rs. 0.55 lakh respectively.

2. During the Fifth Plan period it is proposed to make the Panchayat Raj institutions an effective instrument of rural development including the implementation of minimum needs programme. Panchayat Samities and Zilla Parishad have already been formed in eight districts. It is expected that these bodies will be formed in the rest of the districts in the near future. The State Government have recently decided that all the development work in the district should be entrusted to Zilla Parishads. Chief Executive Officers who will be equal in rank to District Magistrates will be posted in every Zilla Parishad. Already two such functionaries are in position.

3. It is proposed that during the Fifth Plan period the operation of the scheme of giving matching incentive grants to Panchayats to encourage additional tax efforts should be enlarged. It is visualised that with the matching grants so received and the resources mobilised on their own, the panchayats would be in a better position to undertake small but productive schemes of development within their areas. There are as many as eleven thousand panchayats in the State. Even if with a matching grant of Rs. 5,000 per panchayat per year, an outlay of Rs. 5.5 crores would be required for the purpose per year. For the Fifth Plan period requirement of funds on this basis will be of the order of Rs. 27.50 crores. This is a colossal requirement. Moreover, it visualises unprecedented order of resource mobilisation by Panchayats. Taking the realistic view and having regard to the constraint on resources, it is proposed to make a modest provision of Rs. 4.00 crores in the Fifth Plan period for this purpose.

4. It is also proposed to continue the scheme of granting loans to Gram Panchayats for building up of remunerative assets. The Bihar Panchayati Raj Act provides for granting of such loans to panchayats. Such loans can be given to deserving panchayats who may not be in a position to take advantage of the matching grant schemes. A provision of Rs. 20 lakhs is proposed during the Fifth Plan.

5. With the increasingly important role expected of the Gram Panchayats, it is imperative to strengthen the facilities for proper training of panchayat officials. At present panchayat Raj training centres are available only at four places namely Bhagalpur, Ranchi, Muzaffarpur and Patna. It is proposed to open thirteen more such training centres during the Fifth Plan. It is expected that during the Fifth Plan, 75,000 members of Panchayati Raj institutions would be provided training at these centres. An outlay of Rs. 45.31 lakhs is proposed for opening and running the new training centres.

6. Out of the eleven thousand panchayats in the State only eleven hundred panchayats have Panchayat Bhavan where they can locate their offices. Even these Bhavans are not in good shape. It is proposed to make a beginning to remove this deficiency in a phased programme. It is proposed that 32 Panchayat Bhavans be

constructed every year at a modest estimated cost of Rs. 15,000 per Bhavan to be built at Government cost. An outlay of Rs. 24 lakhs is proposed for the purpose.

7. It is necessary to have adequate information facility for the Panchayati Raj institutions. For this purpose it is proposed to build up a Publicity Wing in the Directorate of Panchayat for which an outlay of Rs. 3.81 lakh is proposed. In order to give proper publicity to the developmental activities of the panchayats and also to disseminate necessary legal and other information to the members of the panchayats, it is proposed to publish a Panchayati Raj journal. For this purpose, necessary printing and accessory machinery and staff is proposed to be provided. The printing facility will also be utilised for centralised printing of ballot papers and electoral rolls for Panchayat elections. An outlay of Rs. 12.18 lakhs is proposed for the purpose.

8. With the transfer of entire development work to Zilla Parishads, the Chief Executive Officers would have to be provided with vehicles so that they will be in a better position to supervise, guide and inspect the work of panchayati raj agencies in an effective manner. For this purpose it is proposed to provide 20 Station Wagons with necessary staff, etc., to all the Zilla Parishads during the Fifth Five-Year Plan. An outlay of Rs. 23.69 lakhs is proposed for the purpose.

9. The outlay proposed in this sector for the Fifth Five-Year Plan is summarised below:—

	(Rs. in lakhs).
(i) Matching Incentive grant to Panchayats for additional tax effort	400.00
(ii) Loan to Gram Panchayats for building up of remunerative assets	20.00
(iii) Strengthening of Panchayati Raj Training Centres	.. 45.31
(iv) Construction of Panchayat Bhavans	.. .. 24.00
(v) Creation of a Publicity Wing in the Directorate	3.81
(vi) Publication of Panchayati Raj journal and opening up of Panchayati Raj Printing Press.	12.18
(vii) Provision of vehicles to Zilla Parishads	.. .. 23.69
Total	.. <u>528.99</u>

**CHAPTER XIV**  
**IRRIGATION AND FLOOD CONTROL**

**Introduction :**

Bihar has a total ground area of 173.8 lakh hectares. Between 1959-60 and 1967-68, the area available for cultivation increased from 111.2 lakh hectares to 116.8 lakh hectares mainly due to the reduction of area under forest and the barren area being brought under cultivation.

It has been assessed that the ultimate irrigation potential (cropped area) of 121.5 lakh hectares could be created by 1990-91 from major, medium and minor Schemes. Out of this, about 92.20 lakh hectares alone would be from major and medium Schemes.

Bihar had preplan irrigation potential of 4.04 lakh hectares. Through the Major and Medium Irrigation Schemes taken up during the plan period, the irrigation potential in the State could be increased to 9.71 lakh hectares at the beginning of the Fourth Plan.

**Fourth Plan Experience :**

2. Against the original target of irrigation potential of 19.23 lakh hectares to be created through the Major and Medium Schemes during the course of Fourth Plan, the target was increased to 20.07 lakh hectares. Against the original utilization target of 14.86 lakh hectares, the anticipated utilization at the end of Fourth Plan will be 14.60 lakh hectares. In terms of percentage as against a target of 77.4 per cent of potential utilization, the actual utilization is expected to be 72.9 per cent of the target potential. The physical progress of utilization is expected to be about 26.44 thousand hectares less than the original target figures of utilization. This is not considered much when the difficulties that had to be encountered in the execution of the schemes are reviewed. A review of the statement (VA) enclosed will reveal that the short-fall in the creation of potential and utilization has generally taken places in the two Multi-purpose Major Schemes of the State viz., (1) the Gandak Project and (2) the Kosi Project. A general review of the performance of these two projects have been made separately in this Chapter.

3. The performance of the medium schemes has not been far behind the target potential except in a few schemes as could be seen from Statement VA. These schemes are—

- (1) *Uderasthan Irrigation Scheme*—Reason : Canals could not be completed due to land acquisition trouble.
- (2) *Musakhand Dam Distribution System*—Reason : Water could not be supplied by Uttar Pradesh.
- (3) *Kamla, Roro, Paimar Irrigation Schemes*—Reason : Progress of work could not be as per programme due to shortage of supply of construction materials e.g. cement, iron and steel, etc. The physical and financial progress during the Fourth Five

Year Plan is given below :—

*Physical progress (In '000 hectares)*

				Fourth Plan Target.	Fourth Plan revised target.
(1) Potential	...	...	...	1,922.58	2,007.71
(2) Utilization	...	...	...	1,486.26	1,459.82

*Financial Progress (Rs. in crores)*

				Fourth Plan outlay	Fourth Plan anticipated anticipated expenditure.
				Rs. 111.00	Rs. 134.54

The increase in expenditure is mainly due to increase in outlay of Western Kosi Canal, which has been cleared in the Fourth Plan and also due to acceleration in Kosi and Gandak Projects for completion of these projects before the end of Fifth Five Year Plan.

#### **Laws and Legislation :**

4. The major and medium irrigation schemes of Bihar are executed under the Bengal Irrigation Act, 1876. Under this Act, the entire cost of a Project is borne by the Government and areas benefitted are assessed to water rates. Under this Act, every cultivator who requires water for irrigation has to apply to canal S.D.O. who issues permit (Satta system). In the above system various difficulties have been experienced as the procedure for assessment and realisation of water rate has been found to be tedious and cumbersome. Unauthorised irrigation is a common feature and settlement of disputes take long time. With the gradual increase of area under irrigation, the Government has been finding it increasingly difficult to increase the irrigation revenue. By a Government notification the system for application of water was temporarily stayed in the Kharif season of 1972, and it was decided that water rate would be charged for all land benefitted by irrigation. This system was continued in the Rabi season of 1973 also. Amendment of the Bengal Irrigation Act, 1876 is now under the active consideration of the Government. When such changes are brought about, the revenue from irrigation is expected to rise considerably.

5. Bihar had preplan irrigation potential of 4.04 lakh hectares. Through the major and medium irrigation schemes taken up during the plan periods, the irrigation potential could be increased to 9.71 lakh hectares at the beginning of the Fourth Plan. By the end of Fourth Plan, the irrigation potential will increase to 20.07 lakh hectares. The proposals for the Fifth Plan envisage increase of the irrigation potential to 35.36 lakh hectares.

Though the irrigation potential being created by the end of Fourth Plan will be about 20.07 lakh acres, about 4.0 lakh hectares of the above area will still have precarious irrigation facilities i. e. only one crop unassured irrigation through diversion schemes on non-perennial and flashy rivers of South Bihar.

6. In selecting the schemes for inclusion in the Fifth Plan, the continuing schemes have been given the top most priority. These schemes are all proposed to be completed either by the third, fourth or the fifth year of the Fifth Plan. The other schemes proposed to be included in the Fifth Plan have been categorised as (i) Schemes in the Tribal areas of Chotanagpur and Santhal Parganas; and (ii) Schemes in the drought prone areas in the districts of Bhagalpur, Monghyr, Gaya, Shahabad and Patna. Further, in selecting the schemes, care has been taken to see that the regional imbalance in the development of irrigation in the State is reduced to the minimum.

#### **Regional Imbalance :**

7. On completion of the schemes taken up for execution in North Bihar during the earlier Five Year Plans viz., the Kosi Project, the Gandak Project, the Bagmati Irrigation Project and the Kamla Weir Schemes, etc., the irrigation potential to be created in North Bihar would be about 34.4 per cent of the ultimate irrigation potential in that area. Against this for South Bihar the percentage will be 27. This includes the area under Sone Canal system which had been brought under irrigation in the Preplan period. The development of irrigation potential in Chotanagpur and Santhal Parganas which covers mostly the tribal areas of the State has been extremely low. The irrigation potential so far created is only about 2 per cent. of the ultimate irrigation potential for this region.

8. To remove the regional imbalance most of the new irrigation schemes to be included in the Fifth Plan have been proposed in the tribal areas of Chotanagpur and Santhal Parganas and in the drought affected areas of South Bihar where failure of rain and crop is a common feature.

**Allocation :**

9. A provision of Rs. 252.35 lakhs has been proposed for major and medium irrigation schemes in the Fifth Plan with the following distribution :

				<i>(In crore rupees)</i>
(1) Continuing schemes	...	...	...	135.91
(2) New schemes—				
(i) Schemes in Tribal areas	...	...	...	65.73
(ii) Schemes in Drought Prone areas	...	...	...	47.21
(iii) Investigation and Research	...	...	...	3.50
				252.35

It will be seen that about 57 per cent of the allocation on new schemes have been made on the irrigation schemes in the tribal areas, where facilities of irrigation is meagre. The balance allocation of 43 per cent on new schemes has been made on schemes which will come up in the drought prone areas.

The long periods of drought in 1966, 1967 and 1972 have amply demonstrated that agriculture without assured irrigation in the drought prone areas of Bhagalpur, Monghyr, Gaya, and Shahabad is bound to fail and there is no other alternative than to go in for assured irrigation in these areas. These areas are mostly located in South Bihar where it is not possible to sink larger diameter tubewells due to low yield of ground water. Storage reservoirs are, therefore, the best solution for assured irrigation. Storage reservoirs or river pumping schemes have, therefore, been selected for irrigation in this drought prone area.

10. Schemewise details of some of the major and medium irrigation schemes are given below :

**Kosi Project :**

11. The Kosi Project (Original) is a continuing scheme. This scheme was taken up in first Five Year Plan at an estimated cost of Rs. 37.31 lakhs. It comprised both Flood protection and Irrigation. The cost under irrigation sector was then estimated at Rs. 2000 lakhs. The works under irrigation comprised of construction of Barrage and Eastern Kosi Main Canal. The Canal system comprised of following :—

(a) Main Canal	...	...	...	27 miles.
(b) Branch Canals—				
(i) Murliganj Branch Canal	...	...	...	40 miles.
(ii) Janki Nagar Branch Canal	...	...	...	51 miles.
(iii) Purnea Branch Canal	...	...	...	40 miles.
(iv) Araria Branch Canal	...	...	...	36 miles.
(c) Distributaries and Minors	...	...	...	1,694 miles.

12. The estimate on the above works was revised from time to time and finally it now stands at Rs. 7460 lakhs. The estimated cost has increased mainly due to increase in cost of labour and materials. Later on, for quick utilisation of irrigation potential, two major works were taken up in the command area. First construction of water courses up to one cusecs and second reclamation of water logged areas by drainage schemes. Former is estimated at Rs. 787.16 lakhs and later at Rs. 9.86 lakhs.

13. The Kosi Project (original) envisaged an annual irrigation potential of 570 thousand hectares (14.06 lakhs acres), the three crop season having 323 thousand hectares (8.11 lakhs acres) for kharif, 97 thousand hectares (2.37 lakhs acres) for Rabi and 145 thousand hectares (3.58 lakh acres) for Hot Weather. The main canal and Branch canals were almost completed by 1963 and partial irrigation was started from 1964-65, beginning with 2,000 cusecs discharge in the main canal which was subsequently raised to 10,000 cusecs by 1970. For quick utilisation of irrigation potential, construction of water courses up to 1 cusec was also taken up by the Government from 1964 onwards. The irrigation utilisation showed a gradual increase from 1964 to 1968. It showed a decline there after inspite of increase in the number of water courses and better canal management. But again in 1972, the utilisation exceeded the past achievement. On appraisal by several technical committees and water management Division, Government of India the following reasons were attributed to it,

- (i) Heavy siltation in the canal bed.
- (ii) Poor land development and inadequate field distribution systems.
- (iii) defective crop planning.
- (iv) excessive seepage through canals and defective land drainage over 2.91 lakh acres.
- (v) insecure tenancy rights of large numbers of share croppers, and
- (vi) non-construction of field channel by the cultivators at their own cost.

Moreover, nearly 25 per cent of water courses have also not been completed which is proposed to be completed in subsequent years. Drainage of 3.40 lakh acres of water logged areas, is necessary to increase the crop area during kharif as well as Rabi. On detailed investigation of the command area it was found that an area of 2.91 lakh acres are high patches and cannot be commanded for flow irrigation. Thus the C.C.A. which originally was 12.23 lakh acres is reduced to 5.92 lakh acres after deducting water logged and high acres. The annual irrigation is therefore raised to 275 thousand hectare (6.11 lakhs acres). The total annual utilisation is nearly 158 thousand hectares (3.91 lakhs acres) only. It is evident that the shortfall is mainly due to low acres under Rabi and Hot weather crops. The Project envisages nearly equal acreage under Rabi and Hot-weather combined together to kharif. But at present it is only 10 per cent of kharif area. If suitable cropping pattern is introduced it is definite that full irrigation potential created so far will be utilised.

14. Drainage schemes are being formulated to reclaim as large area as could be possible. It is proposed to investigate and execute all the drainage schemes including the schemes for providing flow irrigation to high patches during the Fifth Five Year Plan. It is worth while to mention here that it would, not however, be possible to reclaim hundred per cent of water-logged and high patches area under full command. It is expected that fifty per cent of these areas will come under command. As such the C.C.A. will be restricted to 908 lakh acres and the annual irrigation to a maximum of 10.72 lakh acres. It is further proposed to complete the remaining works on distributaries and Minors and water courses during the Fifth Five Year Plan. Accordingly an outlay of Rs. 894 lakh has been provided in the Fifth Five Year Plan.

		Approximate cost.	
		(Rs. in lakhs.)	
(I) L-Earth Work			
(a) Distributaries and Minors	...	545 lakh cft.	20
(b) Water courses	... ..	3,000 nos.	80
(c) Drainage schemes	... ..	130 nos.	380
(d) Escape channels	... ..	15 miles.	20
(e) Parallel channels	... ..	50 nos.	20
TOTAL ...			520
 (II) Structures			
(a) Silt ejector	... ..	1 no.	28
(b) Cross regulators and falls	... ..	50 nos.	70
(c) Cross-drainage works	... ..	30 nos.	106
(d) Permanent Bye pass channel including structures.	... ..	1 no.	20
(e) Lining on main canal from 0 to 22 R.D.	... ..	...	70
TOTAL ...			374

It is proposed that after completion of the works mentioned above at an estimated expenditure of Rs. 894 lakhs an irrigation potential of 10.72 lakhs acres will be created during the Fifth Plan.

15. The Kosi Project covers mainly the district of Shaharsa and Purnea. It has created a permanent employment of nearly 5,000 persons on canal management. Further on the works mentioned above it will create an employment potential of skilled 10 lakh mandays and unskilled 200 lakh mandays in the Fifth Five Year Plan. Apart from this there will be large scale creation of employment potential of agricultural labourers due to introduction of

three crop system in the area. The Eastern Kosi Canal system has assured water for agricultural purposes through out the year and the farmers of the area should take to three crop system which will provide employment to agricultural labourers all the year round. It is estimated that the agricultural operations in an area of nearly 10 lakh acres will need mandays each year i.e. creating an indirect employment potential of 30 lakh mandays during fifth five Year Plan.

## 2. Rajpur Canal System

16. This is a continuing scheme from the Third Five Year Plan. Its estimated cost is Rs. 972 lakhs. The envisaged capacity is to create an annual irrigation potential (3 crops in a year) of 3.97 lakh acres. But it will be restricted to 2.92 lakh acres only due to water logged areas and high patches within the command. The scheme has not been completed as yet, although irrigation has been started from this system from the year 1967. Last year it irrigated an area of 65 thousand acres. It is proposed to complete the remaining work on distributaries and minors and water courses in the Fourth Five Year Plan itself as such no provision has been made in the fifth plan.

## 3. Western Kosi Canal System

17. The Western Kosi Canal Scheme was sanctioned in the Third Plan at an estimated cost of Rs. 1326 lakhs but the work on it could not be started in absence of an agreement with Nepal. The first 22 miles of this canal falls within Nepal Territory and clearance of Nepal Government was necessary for taking possession of requisite land in Nepal. Before giving clearance, the Nepal Government desired the scheme and alignment of the canal to be vetted by them. This was finalised in a high officials meeting at Kathmandu in October, 1971. The estimate of the scheme was revised to Rs. 4197 lakhs in the above light. There was only a token provision for this scheme in the Fourth Plan due to uncertainty. On a special request made by the State Government for allotment of fund after the scheme was cleared by the Nepal Government, the Government of India agreed to allocate Rs. 250 lakhs in 1972-73 and 1973-74, outside the State Plan. There is a provision of Rs. 150 lakhs in 1973-74 within the Plan Ceiling.

18. The work on the canal portion in Nepal has been started. The total length of main canal is 70 miles out of which the first 22 miles are in Nepal. As per agreement reached with the Nepal Government the canal in their portion should be completed by 1975. It is also proposed to take up a portion of the Western Kosi Canal in Indian portion in 1973-74 and intensify the execution in the Fifth Five Year Plan. Accordingly an outlay of Rs. 25,00 lakhs is proposed in the Fifth Five Year Plan. It is not expected to complete the work in Fifth Five Year Plan and as such it will spill over to the Sixth Plan.

19. Normally the execution of canal is done to create irrigation potential at the end of completion of the scheme. But in this case it is proposed to complete portionwise in all respects upto water courses so as to create irrigation potential simultaneously. The works mainly to be completed in the Fifth Plan are detailed below :—

Serial no.	Item of works.	Quantity.	Approximate cost (in lakhs.)
1	Earth Work—		
	(i) Main canal (including lining of Branch canal.)	4,000lakh cft.	750
	(ii) Distributaries and Minors	... 5,7000lakh cft.	350
	TOTAL	...	<u>1100</u>

Serial no.	Item of works.	Quantity.	Approximate cost (in lakhs.)
2	Structures—		
	(i) C.D. Works ... ..	75 nos.	500
	(ii) Escape regulator, Cross Regulators and Fall.	100 nos.	200
	(iii) Bridges ... ..	350 nos.	150
	TOTAL ... ..		850
3	Water courses ... ..	2,500 nos.	300
4	Drainage ... ..	25 schemes	250

20. It is envisaged that after completion of the above works an irrigation potential of 4.00 lakh acres will be created in Indian portion. Out of the total outlay of Rs. 2500 lakhs on the scheme in Fifth Plan, an outlay of Rs. 250 lakh is meant for the canal in Nepal portion.

21. It is proposed to create an employment potential of 640 lakh mandays during the Fifth Plan. Out of this skilled will be 35 lakh mpndays and unskilled 605 lakh mandays. Apart from this there will be large scale employment of agricultural labourers when an area of 4.00 lakh acres will get assured irrigation during the Fifth Plan.

#### 4. Gandak Project

22. The Gandak Irrigation and Power Project envisages diversion of water of river with the help of a 2,425 ft. long barrage at Valmikinagar and two main canals, known as Main Eastern and Main Western Canal, taking off from the left and right banks respectively upstream of the barrage. In addition, another canal known as Nepal Western Canal takes off from the right bank further upstream of the barrage. Through the above canal system irrigation will be provided in a culturable area of 23.71 lakh acres (crop area 28.45 lakh acres) in Bihar, culturable area of 10.95 lakh acres (crop area 8.21 lakh acres) in Uttar Pradesh and culturable area of 1.09 lakh acres (crop area of 1.28 lakhs acres) in Nepal. The gross command served by the Project comes to 33.87 lakh acres in Bihar, 13.32 lakh acres in Uttar Pradesh and 1.56 lakh acres in Nepal.

An inundation canal, known as Tribeni Canal which tookoff at 2,500 ft. upstream of the present barrage, was built in the year 1914 and serves culturable area of 2.8 lakh acres, corresponding to a gross command of 4.08 lakh acres. The Tribeni Canal system is now fed from the Gandak Barrage through the Main Eastern Canal. Similarly, another inundation canal, known as Naraini Canal has been serving in Uttar Pradesh. This too is now fed from the Gandak Barrage through the Main Western Canal.

Utilizing the 20 ft. fall on the main Western Canal at its 9th mile inside the Nepalese territory, a hydro-electric Power House, having an installed capacity of 15 M.W. will supply power to Nepal and India.

23. The Main Eastern Canal has a total length of 180 mile and will irri gate a culturabl area of 13.44 lakh acres (crop area 16.13 lakh acres) in West and East Champaran Muzaffarpur, Vaishali, Samastipur and Darbhanga Districts of Bihar. In addition, it will provide irrigation benefits to a culturable area of 0.81 lakh acres (0.97 lakh acres) crop area in Bara, Parsa and Rautahat districts of Nepal. From mile two, after the off take of Den and Tribeni Branch Canal, it is known as Tirhut Canal. The Nepal Western Canal will provide irrigation benefits to 28,000 acres of culturable area (crop area 31,000 acres) in Bhairwa zone of Nepal. There is a proposal to extend irrigation benefits to another 45,000 acres of culturable area in the Lumbini zone of Nepal through the extension of Nepal Western Canal.

24. The Main Western Canal has a total length of 125 miles. The first 12 miles lie in Nepal, the middle 70 mile in Uttar Pradesh and the remaining 43 miles in Bihar. where it is known as Saran Canal. The Main Western Canal system will irrigate a crop area of 8.21 lakh acres of Gorakhpur and Deoria districts of Uttar Pradesh and 11.82 lakh acres crop area in the Siwan and Saran district of Bihar. The hydro-electric power houses will generate a firm power of 10 MW and will be ultimately gifted to Nepal.



The actual irrigable area (crop area) in Bihar will be 28.45 lakh acres as per details below :

Districts.	Crop area (lakh acres).
West and East Champaran ... ..	7.94
Vaishali and Muzaffarpur ... ..	6.94
Samastipur and Darbhanga ... ..	1.75
Siwan and Saran ... ..	11.82
<b>TOTAL ... ..</b>	<b>28.45</b>

25. The works in Bihar and Nepal are being executed by the Government of Bihar and those lying in Uttar Pradesh by that Government. The project is being financed from cent per cent loan assistance within the State Plan ceiling received from the Central Government. The expenditure on Nepal benefit schemes is being met by way of grant from the Government of India to the Government of Bihar. The Project was sanctioned by the Planning Commission in the year, 1961 for an estimated cost of Rs. 52.03 crores, the share of Bihar being Rs. 40.47 crores and that of Uttar Pradesh being Rs. 11.56 crores. Revised estimates were prepared in the year 1965, and the Planning Commission gave a sanction for a total of Rs. 1,58.57 crores in the year 1969, the share of Bihar being Rs. 1,19.18 crores and that of Uttar Pradesh Rs. 39.39 crores. The second revised estimate that has been submitted to Planning Commission in November, 1972 amounts to Rs. 1,83.36 crores, which include Rs. 19.68 crores for Drainage work and Rs. 3 crores for remodelling of the existing Tribeni Canal system which now forms part of over all Gandak Project. According to the agreement reached between Bihar and Uttar Pradesh on the sharing of the cost of common works, Bihar had to pay a net sum of Rs. 11.03 crores to Uttar Pradesh. This has now been revised to Rs. 13.04 crores and has, therefore been included in Bihar's share of Rs. 1,83.36 crores. Out of Rs. 1,83.36 crores, a sum of Rs. 19.64 crores will be spent on Nepal benefit schemes leaving a balance of Rs. 163.72 crores for Bihar works. Taking this revised estimate into consideration, the cost benefit ratio for the Gandak Project in Bihar works out to 5.06 with 5 per cent interest charges and 3.11 with 10 percent interest charges.

The main reason for the increase in the present estimated cost of the Project over the revised estimate prepared in the year, 1965 and sanctioned in the year 1969, are as follows :—

<i>(Rs. in crores.)</i>	
(i) Provision of drainage works and anti-water logging measures.	19.27
(ii) Increase in cost of bridges and C.D. works etc. ...	12.41
(iii) Increase in cost due to lining in head reach and from 704 R.D. to tailend of Tirhut Canal and in cost of Earth work.	7.17
(iv) Increase in cost of land ... ..	7.34
(v) Cost of remodelling of Tribeni Canal not provided for in the revised estimate of 1965.	2.96
(vi) Escalation of materials and labour ... ..	7.71
<b>TOTAL ... ..</b>	<b>56.86</b>

#### Progress of works and expenditure

26. The total expenditure incurred by the Government of Bihar on Gandak Project upto the end of March, 1972 comes to Rs. 1,01.75 crores. Out of this a sum of Rs. 12.61 crores has been paid to the Government of Uttar Pradesh towards the share of Bihar for the construction of Main Western Canal within Uttar Pradesh. The balance of Rs. 89.14 crores has been spent on construction of barrage and channels etc.

The construction of barrage was completed in 1969-70. The first 12 miles in Western Canal falling in Nepal was completed by Bihar in 1969-70 and it has been possible to

introduce irrigation through this canal in Uttar Pradesh in the Deoria Branch Canal which takes off as soon as the canal enter in Uttar Pradesh from Nepal. An irrigation potential of 40,000 acres has been created in Saran Canal system which was opened on 3rd December, 1972 after completion of Main Western Canal, which lies in Uttar Pradesh. The Don Canal, on which a sum of Rs. 9.00 crores has been spent is complete. It commands a culturable area of only 41,000 acres in Bihar and has been constructed mainly as a water carrier for Nepal Eastern Canal, which takes off from the tail end of Don Canal. The construction potential has been created because the distribution system below 20 cusecs has to be done by the H.M.G. of Nepal, which has not yet been done. The first 36 miles of Main Eastern on which a sum of Rs. 10.80 crores has been spent, is an idle length, except that it feeds the Don Canal and Tribeni Canal within first two miles of its head reach. All the above accounts for an expenditure of Rs. 71.14 crores. It is only the distribution system of Tirthat Canal between 37 mile and 135 mile, on which a sum of Rs. 18 crores has been spent where it has been possible to create irrigation potential of 4.0 lakh acre up till now.

#### Irrigation potential and utilisation :

27. The programme of construction and creation of potential and utilisation provided in the initial project report of 1959 was as follows :

Year.	Utilization in lakh acres. (crop area).	Remarks.
1960-61 Start of construction	...	Based on cropping
1968-69	...	pattern of 112.96
1969-70	5.3	per cent which was
1970-71	10.6	later revised to 115
1971-72	15.9	per cent and there
1972-73	21.25	after to 120 per cent.
1973-74	26.589	

Full utilization of irrigation potential was envisaged after five years of the end of construction period. It could not be possible to keep up to this programme for want of availability of required funds and had to be revised. From 1966 to 1968, the project works had to be drastically slowed down. In this process, the period of construction has increased considerably, reflecting adversely on the cost of project.

28. The revised programme of creation of irrigation potential and development of irrigation framed in the 11th meeting of the Gandak Control Board held at Patna in July, 1969 was as follows :

Year.	Irrigation potential (in lakh acres) (crop area)	Development of irrigation in lakh acres) (crop area).
1968-69	1.48	0.50
1969-70	4.22	1.36
1970-71	7.77	2.92
1971-72	10.59	5.04
1972-73	18.72	9.31
1973-74	28.45	14.72
1974-75	28.45	19.35
1975-76	28.45	23.50
1976-77	28.45	27.05
1977-78	28.45	28.45

This programme of potential creation was based on the basis of completion of main canal and branch canals. It did not take into account the full completion of distributaries, minors and water courses. It was found that a large number of gaps in the distribution system of Main Eastern Canal system existed because of non-acquisition of land, public obstruction due to the demand of additional bridges and cases pending against land acquisition in the court of law. In a large number of distributaries and minors, work could not

be started due to public objection on the alignment and the hold up continued for 2 to 3 years. The subject was discussed in the meeting held in the Planning Commission in New Delhi in November, 1970 and it was decided that creation of Irrigation potential would mean only when the distribution system right up to water courses, which has to be built up by the project authorities, are completed. Construction of chul field channels will be done by the beneficiaries. Accordingly, a revised programme of creation of potential up to end of IV Plan was prepared and furnished to the Planning Commission in November, 1971 as below :

Year.	Potential (In lakh acres) C.C.A.	Crop Area.
1970-71	1.77	2.10
1971-72	3.81	4.57
1972-73	7.17	8.60
1973-74	10.00	12.00

The actual achievement of creation of potential and utilization of irrigation has been as below :

Year.	Irrigation potential (in lakh acres) (C.C.A.)	Utilization (in lakh acres) (crop area).
1970-71	1.77	0.86
1971-72	3.90	1.26

The average rainfall in the entire Gandak command is rather heavy but it is different on the eastern and Western sides. While the eastern side has an average rainfall of 55" the Western side has 45" only. In the eastern canal command, there is existence of large number of moribund channels, chours and Mans, leading to severe congestion of drainage. The rainfall in the year 1969-70 and 1970-71 during the kharif season has been heavy. Under these conditions, it was found that there was little desire on the part of the farmers to draw water from the canal and the utilization in the Kharif season was limited to 15,000 acres in 1970-71 and 17,500 acres in 1971-72, which speaks for the shortfall in the utilization figures. But this was not so during the Rabi season. With the available water during the Rabi season, about 25 per cent of the culturable command area can be covered, as provided for in the cropping of Pattern 120 per cent. Due to the keenness on the part of the farmers to go in for more rabi cultivation it is felt that in the future, rabi irrigation will have to be supplemented beyond 25 per cent. This can, however be taken care of by supplementing them through tubewells and pumping water from chours and Mans etc.

#### Progress till the end of Fourth Plan :

29. The Gandak Project is a continued scheme from second Five Year Plan. The project is being financed from cent per cent loan assistance within the state plan ceiling received from the Government of India to the Government of Bihar. The expenditure incurred on Gandak Project up to the 3rd Five Year Plan for the work of Bihar portion met from the state plan ceiling is Rs. 4872 lakhs (met from the state plan ceiling) and for Nepal benefit works is Rs. 554 lakhs (met from the Central grant). The programme of work approved by Gandak Control Board in the 11th meeting held on 28th July, 1969 involved an outlay of Rs. 6500 lakhs during the 4th Five Year Plan (1969-74). This was approved by Planning Commission as below :

(i) For Works of Bihar Portion	...	5,950 lakhs.
(ii) For Nepal benefit Schemes	...	550 lakhs.

Against the above outlay, the expenditure already incurred during the first three years of the Fourth Five-Year Plan on Bihar portion and Nepal benefits schemes is as below :

*(In Lakhs rupees)*

Year	Expenditure on Works on Bihar portion	Expenditn on Nepalre benefit Scheme.	Total
1969-70 ... ..	1374	289	1663
1970-71 ... ..	1337	383	1729
1971-72 ... ..	1203	161	1364
	3914	833	4747

Allotment for the year 1972-73 is Rs. 13 crores under state plan ceiling and Rs. 1.25 crores under Nepal benefit schemes. The allotment for the last year of the 4th five plan i.e. 1973-74 is Rs. 18 crores with state plan ceiling and 1 crore for Nepal benefit scheme. Thus total expenditure to the end of Fourth Five Year Plan will be Rs. 13498 lakhs against estimated cost of Rs. 18336 lakhs as per details below :

	During Fourth Plan ... (Anticipated)	up to end Third plan	Total. End of 4th Plan
(i) Within State Plan ceiling	7014 lakhs	4872 lakhs	11886 lakhs
(ii) For Nepal benefit scheme	... 1058 lakhs	554 lakhs	1612 lakhs
	8072	5426	13498

This leaves a balance of 4838 lakhs to be spent during the Fifth Five-Year Plan as per details given below :

	Total establishment cost.	Anticipated expenditure up to end of Fourth Plan.	Spill over during Fifth Plan.
(i) For Works on Bihar portion within state plan ceiling.	16372	11886	4486
(ii) For Nepal benefit scheme within Central grant ...	1964	1612	352
	18336	134981	4838

*(Rupees in lakhs).*

#### **Fifth Plan Proposal :**

30. In the initial stages, this project was starved for funds and therefore much progress could not be achieved. This will be evident from the facts that during the second Five-Year Plan a token provision of Rupees 5 crores only was made for the Gandak project and Sone project put together and in the Third Five-Year Plan earlier a sum of Rs. 20 crores had been provided for this project in the irrigation sector beside a sum of Rs. 1.31 crore under power sector. It was only in the year 1964-65 after the visit of the Union Minister of Finance and Deputy chairman of the Planning Commission that the importance and usefulness of the project was fully realised and an accelerated programme of work was approved and additional funds are released by the Government of India.

This project was taken up in 1960-61 and the barrage was completed in 1965-66. Water has been released in Tirhut canal since 1968 and in the Saran canal from December, 1972. Main Western Canal was also opened in 1969 and irrigation is being given in U. P. since then. It will be appreciated that the benefits of the large investment already made can be realised only if the canals and the related drainage works are completed. The area development programme of the Gandak basin will be effective only if the canal and related engineering works are ready for commissioning. A programme has, therefore been chalked out in such a manner to draw maximum benefits of the Gandak project as early as possible. The total crop area command under Gandak project is 28.45 lakhs acre corresponding to culturable area of 23.71 lakh acres. The programme of creation of potential has been phased as below :

Plan.	Year	Creation of potential in lakh acre.	
		C.C.A.	Crop area.
Fourth Five-Year Plan	... 1969-70	1.00	1.20
	1970-71	1.77	7.10
	1971-72	3.81	4.57
	1972-73	7.17	8.60
	1973-74	10.00	12.00
Fifth Five-Year Plan	... 1974-75	15.00	18.00
	1975-76	20.00	24.00
	1976-77	23.71	28.45

It will be thus seen that the entire potential is proposed to be created by the end of the third year Five-Year of the Fifth Five-Year Plan i.e. 1976-77. Potential has already been created in an area of 4.00 lakh acres C.C.A. by end of 1972. According to the above programme of creation of potential, the phased requirement of funds for remaining expenditure of Rs. 4838 lakhs during the Fifth Five-Year Plan period will be as below :

(Rs. in lakhs.)		
1974-75	...	2000 (including Nepal benefit scheme)
1975-76	...	2000 (including Nepal benefit scheme)
1976-77	...	838 (including Nepal benefit scheme)

#### Requirement of construction materials during the Fifth Plan

31. The requirement of cement and steel for the works that will spill over during the Fifth Five Year Plan has been estimated as below :

Name of article.	Phased requirement of materials.				
	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
	M.T.	M.T.	M.T.	M.T.	M.T.
Steel ...	10,000	3,500	2,000	1,100	...
Cement ...	75,000	75,000	50,000	20,000	10,000

#### Requirement of Land

32. Land will have to be acquired for construction of Canal and its distribution system and for construction of Project Colonies at different places required during construction and maintenance. The phased requirement of land to be acquired will be as below :—

Acres.	
1974-75	... 9,000
1975-76	... 5,000
1976-77	... 2,500

**Employment potential**

33. The employment potential during construction and maintenance will be as below. The figures of unskilled labour is based on quantum of Earth work and other major items involved every year (taken as 30 per cent of total outlay)

Year.		Skilled	Personel	Non Technical	Unskilled	Remarks.
		Technical Degree.	(Man Days) Diploma.	(Man Days)	(Man Days)	
1974-75	...	60,000	3,00,000	20,00,000	1,20,00,000	Construction Phase.
1975-76	...	60,000	3,00,000	20,00,000	1,20,00,000	
1976-77	...	60,000	3,00,000	20,00,000	60,00,000	
1977-78	...	40,000	2,00,000	15,00,000	30,00,000	Maintenance Phase.
1978-79	...	40,000	2,00,000	15,00,000	30,00,000	

**Bottlenecks**

34. The intensity of irrigation of 70 per cent during the Kharif season is posing problem unless the tendency of the farmers to depend on the rainfall during Kharif season, is got rid of which will also lead to more scientific cultivation and increased food production, utilization of all irrigation potential during Kharif is not possible, Satta system has to be, therefore, abolished quickly and replaced by compulsory levy.

Another serious bottleneck is the drainage congestion and water logging, which will have to be taken care of through construction of trunk drainage schemes and conjunctive use of surface irrigation through Gandak Canal and Sub-surface irrigation through tube wells and lift pumps. The timely construction of field channels is a must, and so also timely and adequate supply of agricultural inputs, viz fertilisers, improved variety of seeds and loan assistance to the farmers.

On the construction side the bottlenecks are land acquisition, supply of cement and steel and spare parts for the construction machinery. The organisation also has to be adequately stream-lined.

**5. North Koel Rservoir Project**

35. North Koel river, a tributary of river Sone, rises in the hills of Ranchi and Palamau district and flows through the district of Palamau to meet the river Sone near village Bandu (Shahabad).

To augment flow to the Sone High Level Canal system and to irrigate land in the districts of Palamau and Gaya through a system of North Koel Canal, a reservoir has been planned near village Kutku, 75 miles /u/s of Bandu, across river North Koel. A barrage will also be constructed near Mohammadganj 10 miles u/s of Bandu to feed the North Koel Canal system.

36. The North Koel Reservoir Project report and estimate was submitted to C.W. and P.C. in 1964. This was studied in C.W. & P.C. and comments were offered. The Project was accordingly modified in the light of the C.W. and P.Cs. comments and was submitted in October, 1970, after examining all the technical comments of the C.W. and P.C. received from time to time, a revised Project Report pnd estimate has been submitted as detailed below :—

(Rs. in lakhs.)

1. Dam and appurtenant works at Kutku.	13,87.69
2. Pick-up Barrage at Mohammadganj	5,65.06
3. Right Bank Canal system to irrigate 4.5 lakh acres (G.C.E.).	11,34.13

TOTAL	...	30,86.88
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37. The Project has been planned for a gross storage of 9.51 lakh acre ft. The catchment area intercepted at Kuku will be 1,114 sq. miles. Some High Level Canal command will be stabilized through assured regulated flow from the North Koel Rservoir when completed. A further irrigation potential of 4.4 lakh acres (Gross area) will also be created in the districts of Palamau and Gaya. Thus the Project will serve one of the most chronically drought affected area in the State.

38. The salient features of the scheme are given below :—

(a) Dam—

(i) Catchment area above dam site	...	1,114 sq. miles.
(ii) Lowest bed level of river	...	1000.00 E.L.
(iii) Maximum Reservoir Level	...	12,10.00 E.L.
(iv) Normal Reservoir level	...	12,05.00 E.L.
(v) Dead Storage level	...	11,22.00 E.L.
(vi) Gross Storage capacity	...	9.5 lakh acre ft.
(vii) Live Storage capacity	...	8.25 lakh acre ft.
(viii) Height of Dam	...	226 ft.
(ix) Approximate Reservoir length at normal water level.	...	10 miles.
(x) Cost	...	13,87.69 lakhs.

(b) Barrage at Mohammadganj—

(i) Catchment area	...	4,108 sq. miles.
(ii) Design discharge	...	5,85,000 cusecs.
(iii) Length of Barrage between abutments	...	2,277 ft.
(iv) Pond level	...	485.0 E.L.
(v) Average bed level	...	472.00 E.L.
(vi) Cost	...	565.06 lakhs.

(c) North Koel High Level Canal—

(i) Discharge at head...	...	2,780 cusecs.
(ii) F.S.L. at head	...	483.75 E.L.
(iii) F.S.D. at head	...	9.00
(iv) Length of Canal	...	70 miles.
(v) Gross command area	...	4.5 lakh acre.
(vi) Culturable command area	...	3.15 lakh acre.
(vii) Crop area	...	3.31 lakh acre.
(viii) Cost	...	11,34.13 lakhs.

(d) Benefits—

Irrigation (i) North Koel Canal	...	4.40 lakhs (Gross).
Power	...	90 M.W.

(e) Incidence of cost—

(i) Cost per acre of G.C.A.	...	4,33.00 lakhs.
(ii) Cost per acres of G.C.A.	...	6,20.00 lakhs.
(iii) Cost per acre of Gross area	...	537.00

Preliminary works on the project has been taken up.

39. The total expenditure likely to be incurred on this scheme by the end of the Fourth Five Year Plan period will be nearly Rs. 4,45 lakhs. Of the remaining Rs. 2642 lakhs, Rs. 2000 lakh is proposed to be provided in the Fifth Five Year Plan period. By the end of the Fifth Five Year Plan, an area of 2.7 lakh acres is likely to be brought under irrigation command.

### b. Bagmati Irrigation Scheme

40. The Scheme envisages the construction of a Barrage across river Bagmati at about 2 miles below the Dheng Railway Bridge. The total length of Barrage will be 1,992 ft. This will be a Cement Concrete Barrage having 7 ft. high steel gate. A Road 22 ft. wide will be constructed over Barrage which will be capable of carrying on heavy truck and defence vehicles. There is a provision of two head Regulators, one on the left side and the other on the right side of the river having a capacity of 2,250 cusecs and 1,450 cusecs respectively. Therefore the Barrage will have two main canals, one on the left side and the other on the right side. According to water availability the capacity of main left and right canal have been fixed at 1,793 cusecs and 800 cusecs respectively. A proposal to line both the canals with brick lining is under consideration.

41. The Barrage site was previously fixed at village Debapur which is about 10 miles below the Dheng Railway Bridge No. 89. But the river Bagmati subsequently changed its courses from village Lahsunia and as a result of which Barrage site was shifted to the place about 2 miles below Dheng Railway Bridge. This resulted into reinvestigation and redesign of the Barrage.

42. The preliminary work for the construction of Barrage is under progress. The collection of material such as Cement, Iron, Boulder and Chip etc. are going on. The Barrage will require a large number of Cement concrete Block which is under preparation. The Divisional Colony at the Barrage site is also under construction. The construction of approach road from Sitamarhi to Barrage site measuring about 20 miles in length and the road from Barrage site to the nearest railway station named Dheng measuring about 2 miles in length have also been started.

43. The salient features of the scheme are given below :

#### (a) Barrage

(1) Maximum Discharge of the river at the Bagmati Site.	1,55,000 cusecs.
(2) Designed maximum of the river at the Bagmati Site.	2,25,000 cusecs.
(3) Catchment area at the Barrage site	... 1,463 sq. miles.
(4) Maximum H.F.L.	... 233.85
(5) Water level at Barrage site	... 229.00
(6) Bed level of the river	... 221.00
(7) Length of Barrage	... 1,992 ft.
(8) Crest level of Barrage	... 223.004
(9) Crest level of under sluice	... 219.00

#### (b) Right Canal—

(1) Total Benefitted area	... 80,590 acres.
(2) Designed Discharge	... 800 cusecs.
(3) Maximum width of canal	... 82 ft.
(4) F.S. Depth	... 6 ft.
(5) Bed level of canal	... 220.00

#### (c) Lift Canal—

(1) Total Benefitted area	... 1,74,410 acres.
(2) Designed Discharge	... 1,793 cusecs.
(3) Maximum width of canal	... 110 ft.
(4) F.S. Depth	... 6 ft.
(5) Bed level of Canal	... 220.00

### 7. Subarnrekha Multipurpose Project

44. The Subarnrekha Project envisages construction of two dams, one on the main river at Chandil and the 2nd on its tributary Kharkai near Chaibasa. It is a Multipurpose Project. It will provide Irrigation in a gross area of 6.5 lakh acres in the district of Singhbhum (Bihar). It will also provide about 1/2 million acre ft. of storage for Industrial and Drinking water supply and will have about one million acre ft. of flood protection in the lower reaches of the river.



45. The estimated cost of the Project is Rs. 75 crores. The anticipated expenditure during the Fifth Plan is Rs. 45 crores. The two dams will be substantially completed by end of the Fifth Plan and this will provide Industrial and drinking water as well as flood protection. The irrigation system will be completed in the next 2 years of the Sixth Plan though the construction programme will be so phased that irrigation would start with the completion of the reservoir.

46. This scheme is recommended for inclusion in the Fifth Plan on following grounds :—

- (a) The scheme will provide irrigation in Chhotanagpur region where up till now hardly 2 per cenn of the cultivable londs have got these benefits. As a matter of fact there is not ever one major irrigation project in the whole of Chhotanagpur region where about 6 million acre of cultivable land are available .
- (b) Agriculture in this region suffers from erratic and in adequate rainfall.
- (c) There are a number of important industry along the banks of Subernarekha and many more are likely to be set up soon. These industries require water to meet their present and future demands.
- (d) This scheme will benefit pre-dominantly tribal belt of the country.
- (e) This scheme will provide flood protection to over one million acres of land in Midnapur district of West Bengal and Balasore district of Oriassa.

5. Yearly phasing of physical programme :

Works.	Percentage of completion.						
	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	1979-80	1980-81
(a) Project Colony ...	...	60	30	10	...	...	...
(b) Approach road ...	...	20	50	20	10	...	...
(c) Siddings and stores ...	...	50	40	10	...	...	...
(d) Procurement of quipment ...	...	30	40	30	...	...	...
(f) Diversion and cofferdam ...	...	...	10	50	40	...	...
(g) Procurement of construction materials.	10	10	15	20	20	50	5
(h) Construction of dam and appurtement works.	...	5	10	20	30	25	10
(i) Finalisation of alignment and construction of canals.	...	5	10	25	30	25	5
(j) Distributaries and water courses.	...	...	10	20	30	30	10

6. Yearly phasing of output/benefits :

	1982-83.	1983-84.	1984-85.	1985-86.	1986-87.	1987-88.	1988-89.
Area brought under command in thousand acres.	87	174	261	348	434	434	434
Net revenue from agriculture ...	...	13.96	29.04	48.12	63.20	63.20	63.20

Besides this will provide industrial water and flood relief to lower basin.

7. Estimated cost and foreign exchange ... Estimated cost—Rs. 75.00 lakhs.  
Foreign exchange—Nil.

	Year.					
	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	Spill over.
Expenditure in lakh of Rupees	500	1000	1000	1000	1000	3000

8. Financial provisions needed in 1974-75 including foreign exchange commitments and payments. Rs. 500 lakhs.

### Flood control

47. The National Flood Control Policy announced by the Government of India after the flood of 1954 suggested execution of Flood Control Schemes in three phases, namely, the immediate, the short term and the long term.

In the "Immediate phase" it was envisaged that comprehensive plans would be drawn up for short term measure of Flood protection by construction of spurs, revetment and even embankments where necessary. In the *Second* phase i.e. "the short term" it was proposed that flood control measures, such as embankments and channel improvement for such areas which are subject to flooding would be taken. In Bihar, at present, the *First* and the *Second* phase programme have been undertaken and they have been executed to a large extent and elsewhere they are in progress. The achievement made upto end of 1972 is as follows :—

Length of embankment	...	2,587 Km.
Area protected	...	23,475 lakh hectares.

48. The schemes taken up so far under the above two phases will spill over to the Fifth Plan and would be completed by the end of Fifth Plan. With the completion of these schemes the achievement would be as under :—

Length of embankment	...	3,173 Km.
Area protected	...	27,925 lakh hectares.

49. In 1971, an unprecedented flood came in the river Ganga, the Ghaghra and the Sone. Large tracts of land lying on both banks of the river Ganga between Buxar and Farakka within the territory of Bihar were inundated. The marginal embankment near Karhagola breached bringing large tracts under water. Water entered into the district towns of Chapra and Arrah and Patna had to be protected with great difficulty. The existing embankments were badly damaged. Special flood damage repairs had to be undertaken for which Rs. 7.5 crores was made available by the Government of India outside the State Plan. A few of the Flood Control Schemes viz, the Mahananda, the Buxar-Koelwar embankment, the raising and strengthening of Ganga embankment, Punpun embankment, Embankment and protective works of Gandak etc., were accepted as priority Flood Control Schemes by the Government of India. Government of India has since provided Rs. 9 crores for the execution of these priority schemes in the Fourth Plan outside the State Plan.

Whereas the flood damage repairs and the breach of the Karhagola embankment were repaired in 1972, the construction of the priority flood control schemes, viz, the Mahananda, the Buxar-Koelwar, the raising and strengthening of Ganga embankments have already been started in the Fourth Plan. The construction of work of the Bhutahi-Balan and Bagmati Flood Control Scheme, which are new flood control works, have also been started.

50. It would have been desirable to complete all the spill-over flood control schemes in the Fifth Plan as well as taking up a few important new schemes. But due to constraints of financial resources, it will not be possible to complete all the continuing schemes. An outlay of Rs. 36.18.00 lakhs is being proposed for flood control in the Fifth Plan. With this provision, it will be possible to complete only 7 of the 16 continuing schemes of marginal embankment. These are Kosi Flood Control Scheme, Bagmati Flood Control Scheme, Mahananda Flood Control Scheme, Buxar-Koelwar Embankment, Bhutajhi-Balan Embankment, Sikrahana Embankment, and Extension of Katramala Embankment upto NH 31. Due to scarcity of resources, it will not be possible to complete the very important scheme of drainage improvement, namely, the Mokameh Tal, Phase II. During the Fifth Plan it is proposed to take up 8 new schemes of marginal embankment. These are Estarn Embankment on Bharania, Chapra Bajidpur Embankment, Extension of Kamla Balan Embankment from Darjia Phuhia, Embankment along Gogra from Dumri to Chapra, Badlaghat Nagarpur Embankment, Kursella-Jaunia Embankment on the left bank of Ganga, Narainpur-Kursella Embankment on the left bank of Ganga and Lakhminia:-Khagaria Embankment on the left bank of river Ganga.

**STATEMENT I**  
**DRAFT FIFTH FIVE-YEAR PLAN.**

**SUMMARY STATEMENT.**

Name of the State :—Bihar.

Head of Development.	Fourth Plan outlay 1969—74.	Expenditure during—			Total Fourth Plan (Loikely expenditure).	Fifth Plan Outlay.		Foreign Exchange.	
		1969—72 Actual.	1972-73			Total.	Capital.		
1	2	3	4	5	6	7	8	9	10
Irrigation (Major and Medium) .. ..	11,100.00	6,729.51	..	2,692.50	4,032.00	13,454.01	25,236.00	25,236.00	Nil
Flood Control Drainage etc. .. ..	1,000.00	757.26	..	461.00 +265.00	327.00 +635.00	1,545.26 +900.00	3,618.00	3,618.00	Nil
<b>TOTAL</b> .. ..	<b>12,100.00</b>	<b>7,486.77</b>	<b>..</b>	<b>3153.50</b> <b>+ 265.00</b>	<b>4,359.00</b> <b>+ 635.00</b>	<b>14,999.27</b> <b>+ 900.00</b>	<b>28,854.00</b>	<b>28,854.00</b>	<b>..</b>

(+) Outside the State Plan Ceiling (For priority Flood Control Works.)

## STATEMENT II-A

## DRAFT FIFTH FIVE-YEAR PLAN

## SCHEMewise DETAILS OF OUTLAYS AND EXPENDITURE ON MAJOR AND MEDIUM IRRIGATION SCHEME.

Name of the State :—Bihar

(Rupees in Lakh.)

Serial no.	Name of Project.	Latest estimated cost.		Expenditure to end of 1968-69.	Fourth Plan outlay.	Expenditure during—			Total Fourth Plan (likely expenditure).	Fifth Plan outlay.		Foreign exchange.
		Amount.	Date.			1969—72 Actual.	1972-73 Anticipated	1973-74 Approved		Total.	Capital.	
1	2	3	4	5	6	7	8	9	10	11	12	13
<b>(A) CONTINUING SCHEME.</b>												
<b>I. MULTIPURPOSE AND MAJOR SCHEME.</b>												
1	Kosi Project (Original) .. ..	74,60.00	1971	46,85.00	15,34.00	11,82.00	3,23.00	3 51,00	18,56.00	8,94.00	8,94.00	..
2	Rajpur Canal .. ..	9,72.00	1972	4,75.00	5,17.00	2,90.00	1,00.00	1,27.00	5,17.00	..	..	..
3	Western Kosi Canal .. ..	41,62.00	5/72	46.00	50.00	5.00	85.00	4,00.00	4,90.00	33,80.00	33,80.00	..
4	Gandak Project.. ..	1,63,72.00	11/72	48,72.00	59,50.00	39,14.00	13,00.00	18,00.00	70,14.00	44,86.00	44,86.00	..
5	Sone Barrage and Link Canal .. ..	16,05.00	4/71	15,28.00	13.00	93.00	10.00	10.00	1,13.00	..	..	..
6	Sone High Level Canal .. ..	13,54.00	6/71	33.00	7,14.00	3,53.00	2,75.00	4,25.00	10,53.00	2,68.00	2,68.00	..
7	North Koel Project .. ..	30,86.00	10/70	..	2,03.00	40.00	2,00.00	2,00.00	4,40.00	17,50.00	17,50.00	..
8	Bagmati Irrigation Scheme.. ..	5,78.00	1970	..	2,80.00	32,29	31.45	50.00	1,13.74	4,64.36	4,64.36	..
9	Ajoy Barrage at Siktia .. ..	9,21.00	9/72	..	..	..	5.25	23.00	28.25	8,92.75	8,92.75	..
10	Chandan Reservoir .. ..	10,42.85	..	6,37.15	4,05.70	2,47.89	85.40	87.81	4,21.10	..	..	..
<b>TOTAL—I</b> .. ..		..	..	..	96,75.70	61,57.18	24,15.10	34,73.81	1,20,46.09	1,21,35.11	1,21,35.11	..
<b>II. MEDIUM SCHEMES.</b>												
1	Kamla Irrigation Scheme .. ..	1,47.79	..	71.83	75.96	54.44	23.60	9.00	87.04	..	..	..
2	Marve Irrigation Scheme .. ..	1,46.56	..	1,42.04	4.52	4.52	..	..	4.52	..	..	..
3	Udesrasthan Irrigation Scheme .. ..	2,51.00	..	1,10.41	24.6 1	39.89	17.05	66.00	1,22.94	17.65	17.65	..
4	Anraj Irrigation Scheme .. ..	40.42	..	31.17	9.25	3.66	0.51	..	4.17	..	..	..
5	Banki Lift Irrigation Scheme .. ..	78.00	..	64.01	13.99	4.54	..	..	4.54	..	..	..
6	Bijoy Irrigation Scheme .. ..	36.89	..	34.38	2.51	2.96	..	..	2.96	..	..	..
7	Roro Irrigation Scheme .. ..	1,24.51	..	1,19.02	5.49	5.94	1.31	..	7.25	..	..	..

8	Sone Weir Scheme	..	..	64.46	..	58.89	5.66	3.31	..	..	3.31	..	..	..
9	Kanchi Weir Scheme	..	..	1,52.10	..	1,45.96	6.13	7.99	..	..	7.99	..	..	..
10	Kokro Weir Scheme	..	..	35.33	..	31.39	3.94	0.53	..	..	0.53	..	..	..
11	Khudia Weir Scheme	..	..	58.02	..	51.19	6.83	2.23	1.31	..	3.54	..	..	..
12	Musakhaid Distory Scheme	..	..	2,10.60	1973	27.82	1,51.44	96.18	4.91	75.00	1,76.09	34.51	34.51	..
13	Other Continuing Scheme	..	..	..	..	..	43.60	30.83	7.40	5.00	43.23	64.33	64.33	..
14	Construction of Water Course	..	..	..	..	..	60.00	40.32	7.95	10.00	58.27	1,00.00	1,00.00	..
15	Paimar Barrage..	..	..	1,31.31	..	..	89.50	41.30	18.35	30.20	89.85	41.46	41.46	..
16	Nakti Dam	..	..	70.85	..	..	70.85	23.74	19.65	33.11	76.50	..	..	..
17	Sundar Reservoir	..	..	1,92.06	..	..	1,92.06	1,00.71	56.75	50.00	2,07.46	..	..	..
18	Chinda Reservoir	..	..	63.02	..	..	31.76	9.41	7.90	44.61	61.92	..	..	..
19	Tajna Barrage	..	..	52.33	..	..	39.13	10.65	9.20	32.68	52.53	..	..	..
20	Anjanwa Reservoir	..	..	41.18	..	..	28.00	11.13	9.20	22.00	42.33	..	..	..
21	Jensai Reservoir	..	..	69.67	..	..	33.00	16.20	27.52	32.47	76.19	..	..	..
22	Butanduba Reservoir	..	..	36.97	..	..	20.00	3.95	2.62	24.13	30.70	6.27	6.27	..
23	Sone Romedelling and Supplementary Scheme.	..	..	94.00	..	..	94.00	9.20	17.20	23.00	49.40	44.60	44.60	..
24	Baksha Dam	..	..	1,04.41	..	..	66.96	23.98	10.50	27.00	61.48	42.93	42.93	..
25	Belharna Reservoir	..	..	62.63	..	..	..	..	..	2.00	2.00	60.63	60.63	..
26	Gobai Barrage	..	..	64.67	..	..	63.28	3.17	3.95	6.00	13.12	51.55	51.55	..
27	Maila Reservoir	..	..	2,55.55	..	..	1,08.38	..	3.93	14.99	18.92	2,36.63	2,36.63	..
28	Oriya Damro Reservoir	..	..	1,36.00	..	..	..	..	..	1.00	1.00	1,35.00	1,35.00	..
29	Gobindpur Reservoir	..	..	32.00	..	..	17.45	..	..	1.00	1.00	..	..	Being dropped.
30	Batane Reservoir	..	..	3,92.02	10/1971	..	..	..	0.13	1.00	1.13	3,90.89	3,90.89	..
31	Ghaghna Dam Reservoir	..	..	71.00	..	..	71.00	..	..	1.00	1.00	..	..	Being dropped.
32	Left Banki Reservoir	..	..	36.62	..	..	..	0.80	6.55	1.00	8.53	28.27	28.27	..
33	Ajan (Kukurjhap) Reservoir	..	..	1,41.60	5/1970	..	..	0.60	1.31	1.00	2.91	1,38.69	1,38.69	..
34	Job Reservoir	..	..	85.15	..	..	..	2.25	4.60	15.00	21.85	63.30	63.30	..
<b>TOTAL—II</b>		..	..	..	..	..	13,39.30	5,54.43	2,63.40	5,28.19	13,46.02	14,56.71	14,56.71	..

**STATEMENT II-A**  
**DRAFT FIFTH FIVE-YEAR PLAN**

SCHEMEWISE DETAILS OF OUTLAYS AND EXPENDITURE ON MAJOR AND MEDIUM IRRIGATION SCHEME.

Name of the State :—Bihar

(Rupees in Lakh.)

Serial no.	Name of Project.	Latest estimated cost.		Expenditure to end of 1968-69.	Fourth Plan outlay.	Expenditure during—			Total Fourth Plan (likely expenditure).	Fifth Plan outlay.		Foreign exchange.
		Amount.	Date.			1969—72 Actual.	1972-73 Anticipated	1973-74 Approved		Total.	Capital.	
1	2	3	4	5	6	7	8	9	10	11	12	13
<b>III. INVESTIGATION AND RESEARCH.</b>												
	(a) Under Irrigation Department ..	..	..	35.00	..	17.90	8.50	..	25.00	51.40	..	..
	(b) Under R.V.P. Department ..	..	..	50.00	..	..	5.50	..	5.00	10.50	..	..
	<b>TOTAL—III</b> ..	..	..	85.00	..	17.90	14.00	..	30.00	61.90	..	..
	<b>TOTAL—(I+II+III) CONT. SCHEME</b>	..	..	1,11,00.00	..	67,29.51	26,92.50	..	40,32.00	1,34,54.01	1,35,91.82	1,35,91.82
<b>(B) NEW SCHEMES OF FIFTH PLAN.</b>												
<b>I. MULTI-PURPOSE AND MAJOR SCHEME.</b>												
<b>(a) TRIBAL AREA.</b>												
1	Subarnrekha Project ..	..	1,00,00.00	2/1973	..	..	..	..	..	20,00.00	20,00.00	..
2	Konar Irrigation Scheme ..	..	11,00.00	..	..	..	..	..	..	6,00.00	6,00.00	..
3	North Koel Tributary Development Scheme (Amanat, Tahle, Auranga Kanhar).	..	83,50.00	5/1972	..	..	..	..	..	4,00.00	4,00.00	..
4	Kanchi Reservoir ..	..	7,20.00	1970	..	..	..	..	..	4,00.00	4,00.00	..
5	Punasi Reservoir ..	..	10,35.00	1972	..	..	..	..	..	8,21.00	8,21.00	..
6	Burhai Reservoir ..	..	5,26.00	1970	..	..	..	..	..	20.00	20.00	..
7	Dhakwa Reservoir ..	..	6,00.00	1970	..	..	..	..	..	20.00	20.00	..
8	Bansloi Reservoir ..	..	5,00.00	1970	..	..	..	..	..	2,75.00	2,75.00	..
	<b>TOTAL—(a)</b> ..	..	..	..	..	..	..	..	..	45,36.00	45,36.00	..

(b) DROUGHT AFFECTED AREA.

1	Mohane Reservoir	..	..	12,00.00	1970	..	..	..	..	..	5,00.00	5,00.00	..		
2	Tilaiya Diversion Scheme	..	..	12,87.00	1972	..	..	..	..	..	4,00.00	4,00.00	..		
3	Barnar Reservoir Scheme	..	..	7,88.00	12/1972	..	..	..	..	..	7,88.00	7,88.00	..		
4	Durgawati Reservoir	..	..	8,47.00	11/1970	..	..	..	..	..	2,00.00	2,00.00	..		
5	Sakri Reservoir	..	..	12,12.00	1972	..	..	..	..	..	2,00.00	2,00.00	..		
6	Lilajan Reservoir	..	..	9,12.00	1972	..	..	..	..	..	2,00.00	2,00.00	..		
7	Sakrigali Pumping Scheme	..	..	5,76.00	3/1973	..	..	..	..	..	2,00.00	2,00.00	..		
8	Bateshwarsthan Pumping Scheme	..	..	7,50.00	3/1973	..	..	..	..	..	7,50.00	7,50.00	..		
TOTAL—(b)													..	..	32,38.00
TOTAL—I (A+B)													..	..	77,74.00

II. MEDIUM SCHEMES.

(a) TRIBAL AREA.

1	Chirka Reservoir	..	..	..	40.00	1971	..	..	..	..	40.00	40.00	..
2	Suru Reservoir	..	..	66.00	1971	..	..	..	..	..	66.00	66.00	..
3	Anraj Reservoir	..	..	1,30.00	1971	..	..	..	..	..	20.00	20.00	..
4	Gumani Barrage	..	..	2,72.00	10/1971	..	..	..	..	..	2,72.00	2,72.00	..
5	Torai Reservoir	..	..	2,96.00	3/1972	..	..	..	..	..	2,96.00	2,96.00	..
6	Orni Reservoir	..	..	1,50.00	1971	..	..	..	..	..	1,50.00	1,50.00	..
7	Sugathan Reservoir	..	..	1,00.00	1971	..	..	..	..	..	1,00.00	1,00.00	..
8	Lotia Reservoir	..	..	33.50	3/1973	..	..	..	..	..	33.50	33.50	..
9	Siwano Reservoir	..	..	51.00	1970	..	..	..	..	..	51.00	51.00	..
10	Golai Reservoir	..	..	42.00	1972	..	..	..	..	..	42.00	42.00	..
11	Khudia Reservoir	..	..	1,13.00	1972	..	..	..	..	..	1,13.00	1,13.00	..
12	Jharjhara Reservoir	..	..	85.00	1972	..	..	..	..	..	85.00	85.00	..
13	Nakti Reservoir (Singhbhum)	..	..	80.00	1972	..	..	..	..	..	80.00	80.00	..
14	Puranpani Reservoir	..	..	30.00	1972	..	..	..	..	..	30.00	30.00	..
15	Kaidia Reservoir	..	..	60.00	1972	..	..	..	..	..	60.00	60.00	..
16	Largara Reservoir	..	..	32.00	1972	..	..	..	..	..	32.00	32.00	..

STATEMENT II-A  
DRAFT FIFTH FIVE-YEAR PLAN

SCHEMewise DETAILS OF OUTLAYS AND EXPENDITURE ON MAJOR AND MEDIUM IRRIGATION SCHEME.

Name of the State :—Bihar

(Rupees in Lakh.)

Serial no.	Name of Project.	Latest estimated cost.		Expenditure to end of 1968-69.	Fourth Plan outlay.	Expenditure during—			Total Fourth Plan (likely expenditure).	Fifth Plan outlay.		Foreign exchange.
		Amount.	Date.			1969-72 Actual.	1972-73 Anticipated	1973-74 Approved		Total.	Capital.	
1	2	3	4	5	6	7	8	9	10	11	12	13
17	Palna Reservoir ..	80.00	1972	..	..	..	..	..	..	80.00	80.00	..
18	Hatheli Murgaon Reservoir ..	32.00	3/1973	..	..	..	..	..	..	32.00	32.00	..
19	Hiru Reservoir ..	80.00	3/1973	..	..	..	..	..	..	80.00	80.00	..
20	Paras Reservoir ..	81.00	3/1973	..	..	..	..	..	..	81.00	81.00	..
21	Masaria Reservoir ..	30.00	1972	..	..	..	..	..	..	30.00	30.00	..
22	Pandarwa Reservoir ..	30.00	1972	..	..	..	..	..	..	30.00	30.00	..
23	Chirgaon Reservoir ..	1,54.00	1972	..	..	..	..	..	..	1,54.00	1,54.00	..
24	Other medium Schemes ..	79.68	..	..	..	..	..	..	..	79.68	79.68	..
	TOTAL ..	..	..	..	..	..	..	..	..	20,37.18	20,37.18	..

(b) DROUGHT AFFECTED AREA.

1	Upper Kiul Reservoir ..	4,93.00	1971	..	..	..	..	..	..	4,93.00	4,93.00	..
2	Sodhwarni Reservoir ..	2,14.00	1972	..	..	..	..	..	..	30.00	30.00	..
3	Bilasi Reservoir ..	60.00	1972	..	..	..	..	..	..	60.00	60.00	..
4	Gang Pumping Scheme at Chausa ..	60.00	1972	..	..	..	..	..	..	60.00	60.00	..
5	Surajgarha Pumping Scheme ..	1,35.00	3/1973	..	..	..	..	..	..	1,35.00	1,35.00	..
6	Kankai Barrage Scheme ..	3,00.00	3/1973	..	..	..	..	..	..	50.00	50.00	..
7	Dakra Nala Pumping Scheme ..	3,35.09	3/1973	..	..	..	..	..	..	3,35.00	3,35.00	..
8	Amkhar Reservoir ..	4,93.00	3/1973	..	..	..	..	..	..	75.00	75.00	..



9	Punpun Barrage Scheme	..	..	2,00.00	1971	..	..	..	..	..	65.00	65.00	..
10	Sultanganj pumping scheme	..	..	1,95.00	3/1973	..	..	..	..	..	50.00	50.00	..
11	Barari Pumping Scheme	..	..	3,12.00	3/1973	..	..	..	..	..	50.00	50.00	..
12	Other Medium Scheme	..	..	80.00	..	..	..	..	..	..	80.00	80.00	..
TOTAL—(b)		..	..	..	..	..	..	..	..	..	14,83.00	14,83.00	..
TOTAL II(A+B)		..	..	..	..	..	..	..	..	..	35,20.18	35,20.18	..
TOTAL—(b)—NEW SCHEME		..	..	..	..	..	..	..	..	..	1,12,94.18	1,12,94.18	..
(C) INVESTIGATION		..	..	..	..	..	..	..	..	..	2,50.00	2,50.00	..
(d) RESEARCH		..	..	..	..	..	..	..	..	..	1,00.00	1,00.00	..
TOTAL		..	..	..	..	..	..	..	..	..	..	..	..
GRAND TOTAL—(A+B+C+D) IRRIGATION.)		..	..	..	1,11,00.00	67,29.51	26,92.50	40,32.00	1,34,54.01	2,52,36.00	2,52,36.00	..	..

**IRRIGATION STATEMENT II-B.**  
**DRAFT FIFTH FIVE-YEAR PLAN.**

SCHEMewise DETAILS OF OUTLAYS AND EXPENDITURE ON FLOOD CONTROL DRAINAGE, ANTIWATER LOGGING AND ANTI SEA EROSION SCHEMES.

Name of the State—Bihar, Irrigation Department.

(Rupees in Lakhs.)

Serial no.	Name of Scheme.	Latest estimated cost.	Expenditure to end of 1968-69.	Fourth Plan outlay.	Expenditure during—			Total Fourth Plan likely expenditure.	Fifth Plan Outlay.		Foreign exchange.
					1969—72. Actual.	1972-73 Anticipated	1973-74 Approved.		Total.	Capital.	
1	2	3	4	5	6	7	8	9	10	11	12
<b>A. CONTINUING SCHEMES.</b>											
<b>I. MARGINAL EMBANKMENT.</b>											
1	Kosi Flood Control .. ..	37,04.00	2,74.00	3,20.00	4,42.00	3,11.00	2,27.00	9,80.00	3,14.00	3,14.00	..
2	Bagmati Flood Control Scheme .. ..	654.00	..	150.00	55.51	65.00	62.00	1,82.51	4,71.49	4,71.49	..
3	Mahananda Flood Control Scheme .. ..	5,30.00	..	85.00	15.46	4.00	3.00	22.46	2,82.54	2,82.54	..
						+1,00.00	+1,25.00	+2,25.00			
4	Buxar Koilwer Embankment .. ..	10,10.50	..	..	..	4.00	3.00	7.00	7,73.50	7,73.50	..
							+180.00	+180.00			
5	Bhutahi Balan Embankment .. ..	92.00	..	..	..	5.00	14.00	19.00	73.00	73.00	..
6	Sikrahna Embankment .. ..	5,29.00	..	66.59	0.81	0.05	3.00	3.86	5,25.95	5,25.95	..
7	Extension of Katramala Embankment up to NH 31.	5.00	..	..	..	..	1.00	1.00	4.00	4.00	..
8	Gandak Protective Works .. ..	..	..	..	..	+40.00	+1,60.00	+2,00.00	..	..	..
9	Strengthening of Ganga series of Embankment.	..	..	..	..	+1,25.00	+1,15.00	+2,40.00	..	..	..
10	Embankment on right bank of Bagmati from Karachin to Badlaghat.	..	..	26.93	11.46	2.00	..	13.46	..	..	..
11	Embankment on both banks of River Kamla Balan from Jhanjharpur to Darjia.	..	..	10.81	7.38	2.00	..	9.38	..	..	..
12	Raising and strengthening of Embankment (Lump).	..	..	11.33	6.47	3.00	2.00	11.47	..	..	..
13	Checking avulsion of River Bagmati into Burhee Gandak.	..	..	25.05	0.03	..	..	0.03	..	..	..

15	Raising and strengthening of Kamla Balan Embankment.	..	..	54.33	48.20	5.00	..	53.20	..	..	..
16	Embankment of right bank of River Poonpun.	..	..	50.00	..	..	3.00 +55.00	3.00 +55.00	..	..	..
17	Other continuing scheme (Lump.)	..	..	26.92	40.10	11.95	..	52.05	30.00	30.00	..

## II. PROTECTION OF TOWN.

1	Town Protection (Lump)	..	..	38.35	8.47	3.00	1.00	12.47	..	..	..
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## III. RIVER IMPROVEMENT AND ANTI EROSION SCHEMES.

1	Retired lines etc. (including Mansi)	..	..	90.00	1,05.40	42.00	5.00	1,52.50	..	..	..
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## IV. DRAINAGE IMPROVEMENT.

1	Mokamah Tal, Phase I	..	..	11.02	1.52	..	..	1.52	..	..	..
2	Mokamah Tal, Phase II	..	1,73.00	20.00	..	1.50	2.00	3.50	50.00	50.00	..
3	Chaur drainage scheme costing above Rs. 50,000 each.	5.00	..	5.00	..	0.50	1.00	1.50	..	..	..

TOTAL—(A) CONTINUING SCHEME		..	..	10,00.00	7,57.26	4,61.00 +2,65.00	3,27.00 +6,35.00	15,45.26 +9,00.00	25,24.48	2524.48	..
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## (B) NEW SCHEMES OF FIFTH PLAN.

### I. MARGINAL EMBANKMENT.

1	Eastern Embankment Bhatania	..	5,50.00	..	..	..	..	..	5,50.00	5,50.00	..
2	Chapra Bajidpur Embankment	..	2,24.00	..	..	..	..	..	65.00	65.00	..
3	Extension of Kamla Balan Embankment from Darjia Phuhia.	1,48.00	..	..	..	..	..	..	1,48.00	1,48.00	..
4	Embankments long Gogra from Dumri to Chapra.	1,00.00	..	..	..	..	..	..	1,00.00	1,00.00	..
5	Badlaghat Nagarapara Embankment	..	1,00.00	..	..	..	..	..	5.00	5.00	..
6	Kursella-Jaunia Embankment on the left bank of Ganga.	40.00	..	..	..	..	..	..	10.00	10.00	..

**STATEMENT II-B.**  
**DRAFT FIFTH FIVE-YEAR PLAN.**

SCHEMewise DETAILS OF OUTLAYS AND EXPENDITURE ON FLOOD CONTROL DRAINAGE, ANTIWATER LOGGING AND ANTISEA EROSION SCHEMES.

Name of the State—Bihar, Irrigation Department.

(Rupees in Lakhs.)

Serial no.	Name of Scheme.	Latest estimated cost.	Expenditure to end of 1968-69.	Fourth Plan outlay.	Expenditure during—			Total Fourth Plan likely expenditure.	Fifth Plan Outlay.		Foreign exchange.
					1969-72. Actual.	1972-73 Anticipated	1973-74 Approved.		Total.	Capital.	
1	2	3	4	5	6	7	8	9	10	11	12
7	Narainpur-Kursella Embankment on left bank of Ganga.	89.48	..	..	..	..	..	..	20.00	20.00	..
8	Lakhminia-Khagaria Embankment on the left bank of river Ganga.	64.00	..	..	..	..	..	..	20.00	20.00	..
<b>II. PROTECTION OF TOWNS.</b>											
I	Lump provision for protection of towns	10.00	..	..	..	..	..	..	10.00	10.00	..
<b>III. RIVER IMPROVEMENT AND ANTI EROSION SCHEMES.</b>											
1	Retired lines including Mansi protection etc.	1,45.52	..	..	..	..	..	..	1,45.52	1,45.52	..
(C) INVESTIGATION.											
1	Lump Provision	15.00	..	..	..	..	..	..	15.00	15.00	..
(D) RESEARCH.											
1	Lump Provision	5.00	..	..	..	..	..	..	5.00	5.00	..
<b>TOTAL—(FLOOD CONTROL)</b> <b>(A+B+C+D).</b>		..	..	10,00.00	7,57.26	4,61.00 +2,65.00	3,27.00 +6,35.00	15,45.26 +9,00.00	36,18.00	36,18.00	..

(+) Outside the State Plan Ceiling. (for priority Flood Control Works).

## STATEMENT III.

## DRAFT FIFTH FIVE YEAR PLAN.

## SCHEMewise PHYSICAL PROGRESS OF MEDIUM IRRIGATION.

## Schemes Costing up to Rs. 5 Crores.

Name of the State—Bihar.

Serial no.	Name of the Scheme.	Date of commencement.	Target date of completion.	Approximate	Percentage of	Anticipated date of completion.
				Progress to to end.	physical of 1973-74.	
1	2	3	4	Head works.	Canalsystem.	7
(A) CONTINUING SCHEMES.						
1	Kamala Irrigation Scheme .. ..	Completed		100	100	Completed.
2	Morwe Irrigation Scheme .. ..	Completed		100	100	Completed.
3	Udarsthan Irrigation Scheme.. ..	1962	1975	100	90	1975
4	Anraj Irrigation Scheme .. ..	Completed		100	100	Completed.
5	Banki Left Irrigation Scheme .. ..	Completed		100	100	Completed.
6	Bijoy Irrigation Scheme .. ..	Completed		100	100	Completed.
7	Roro Irrigation Scheme .. ..	Completed		100	100	Completed.
8	Sona Weir Scheme .. ..	Completed		100	100	Completed.
9	Kanchi Weir Scheme .. ..	Completed		100	100	Completed.
10	Kokro Weir Scheme .. ..	Completed.		100	100	Completed.
11	Khudia Weir Scheme .. ..	Completed		100	100	Completed.
12	Musakhand Distributing System .. ..	1966	1975	..	85	1975
13	Paimar Barrage .. ..	1969	1975	100	80	1975
14	Nakti Dam .. ..	1969	1974	100	95	
15	Sundar Reservoir Scheme .. ..	1969	1974	100	100	1974
16	Chinda Reservoir Scheme .. ..	1970	1974	100	100	1974
17	Tajna Barrage Scheme .. ..	1970	1974	100	1 00	1974
18	Anjanwa Reservoir .. ..	1970	1974	100	100	1974
19	Jenasai Reservoir .. ..	1970	1974	100	100	1974
20	Butandufa Reservoir .. ..	1970	1974	100	100	1974
21	Sone Remoldling (Supplementary) .. ..	1971	1975	..	60	1975
22	Bakea Dam (Supplementary) .. ..	1969	1976	100	60	1976
23	Belharna Reservoir .. ..	1973	1977	3	3	1977
24	Gobai Barrage .. ..	1970	1976	50	10	1976
25	Maila Reservoir .. ..	1972	1979	30	5	1979
26	Oriya enro Reservoir .. ..	1973	1976	1	1	1976
27	Gobindpur Reservoir .. ..	Being dropped		..	..	..

## STATEMENT III.

## DRAFT FIFTH FIVE YEAR PLAN.

## SCHEMewise PHYSICAL PROGRESS OF MEDIUM IRRIGATION.

## Schemes Costing up to Rs. 5 Crores.

Name of the State—Bihar.

Serial no.	Name of the Scheme.	Date of commencement.	Target date of completion.	Approximate Progress to to end.		Anticipated date of completion.
				Head works.	Percentage of physical of 1973-74. Canal system.	
1	2	3	4	5	6	7
28	Batana Reservoir .. ..	1973	1979	1	..	1979
29	Chaghra Dam .. . . .	..	Being dropped.	..	..	..
30	Left Banki Reservoir .. ..	1971	1976	25	5	1976
31	Ajan (Kukur Jhap) Reservoir ..	1971	1977	1	1	1977
32	Job Reservoir .. ..	1971	1977	25	5	1977
(TRIBAL AREA.)						
1	Chirka Reservoir .. ..	1974	1977	..	..	1977
2	Suru Reservoir .. ..	1974	1977	..	..	1977
3	Anraj Reservoir .. ..	1979	1982	..	..	1982
4	Gumani Barrage .. ..	1974	1978	..	..	1978
5	Torai Reservoir .. ..	1974	1978	..	..	1978
6	Orni Reservoir .. ..	1975	1979	..	..	1979
7	Sugathan Reservoir .. ..	1975	1979	..	..	1979
8	Lotia Reservoir .. ..	1974	1977	..	..	1977
9	Siwane Reservoir .. ..	1975	1978	..	..	1978
10	Golai Reservoir .. ..	1975	1978	..	..	1978
11	Khudia Reservoir .. ..	1975	1978	..	..	1978
12	Jharjhar Reservoir .. ..	1975	1978	..	..	1978
13	Nakti Reservoir (Singhbhum) ..	1975	1978	..	..	1978
14	Purna Pani Reservoir .. ..	1975	1978	..	..	1978
15	Kaidia Reservoir .. ..	1975	1978	..	..	1978
16	Largara Reservoir .. ..	1975	1978	..	..	1978
17	Palna Reservoir .. ..	1975	1978	..	..	1978
18	Hatheli Murgaon Reservoir ..	1975	1978	..	..	1978
19	Hiru Reservoir .. ..	1975	1978	..	..	1978
20	Paras Reservoir .. ..	1975	1978	..	..	1978
21	Masaria Reservoir .. ..	1975	1978	..	..	1978
22	Pandarwa Reservoir .. ..	1975	1978	..	..	1978
23	Chirgaon Reservoir .. ..	1975	1979	..	..	1979

## STATEMENT III.

## DRAFT FIFTH FIVE YEAR PLAN.

## SCHEMewise PHYSICAL PROGRESS OF MEDIUM IRRIGATION.

## Schemes Costing up to Rs. 5 Crores.

Name of the State—Bihar.

Serial no.	Name of the Scheme.	Date of commencement.	Target date completion.	Approximate	Percentge of	Anticipated date of completion.
				Progress to to end.	physical of 1973-74.	
1	2	3	4	Head works.	Canal system.	7
<b>DROUGHT AFFECTED AREA.</b>						
1	Upper Kiul Reservoir .. ..	1974	1979	..	..	1979
2	Sidhawarni Reservoir .. ..	1979	1983	..	..	1983
3	Bilasi Reservoir .. ..	1975	1978	..	..	1979
4	Ganga Pumping Scheme at Chausa .. ..	1975	1978	..	..	1979
5	Surajgarha Pumping Scheme .. ..	1975	1979	..	..	1979
6	Kankai Barrage Scheme .. ..	1979	1983	..	..	1983
7	Dakra Nala Pumping Scheme .. ..	1975	1979	..	..	1983
8	Amkhar Reservfuir .. ..	1975	1978	..	..	1978
9	Punpun Barrage Scheme .. ..	1978	1982	..	..	1982
10	Sultanganj Pumping Scheme .. ..	1978	1982	..	..	1982
11	Barari Pumping Scheme .. ..	1978	1982	..	..	1982

STATEMENT IV.  
CHECK LIST IN RESPECT OF KOSI PROJECT.

Name of the State—Bihar.

## KOSI PROJECT (ORIGINAL).

1. Name of Project with brief description and location. It comprises the three following units :—  
(i) Construction of Barrage at Hanuman Nagar.  
(ii) Cost of flood embankment for a total length of 150 miles.  
(iii) Canal system in the left bank to irrigate 14,05 lakh acres in district of Saharsa and Purnea and construction of water courses upto 1 cusecs.
2. Commencement .. .. Unit I—1957  
II—1954  
III—1957
3. Estimated data of completion .. .. Unit I—1963  
II—1959  
III—1968  
and water courses upto 1 cusecs capacity 2 years more.
4. Cost estimate at outlays .. .. (a) Approved cost—Rs. 85.34 lakhs (in 1967).  
(b) Revised cost—Rs. 1,11.64 lakhs (in 1971 Foreign Exchange).  
(c) Outlay and expenditure :—

Expenditure upto 1968-69.		Outlay approved 1969-74.		Actual Expenditure.								Proposed 1973-74.	Fifth Plan Target.
Total.	Foreign Exchange.	Total.	Foreign Ex-change.	1969-70.		1970-71.		1971-72.		1972-73.			
				Total.	Foreign Ex-change.	Total.	Foreign Ex-change.	Total.	Foreign Ex-change.	Total.	Foreign Ex-change.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
46,84	..	18,63	..	6,38	..	4,58	..	5,28	..	3,23	..	3,51	8,94

## 5. Programme of output/benefits—

Item.	Unit.	Progress upto 1968-69.	Target for Fourth Plan.	Achievement.				Target of 1973-74.	Fifth Plan Target.
				1969-70.	1970-71.	1971-72.	1972-73.		
1	2	3	4	5	6	7	8	9	10
Area Under irrigation—									
(a) Potential	.. 1000 Hect.	2,75	5,75	2,75	2,75	2,75	2,75	3,03	4,34
(b) Utilization	.. ..	1,21	3,40	1,19	82	74	17,25	1,85	4,34



## STATEMENT IV—contd.

6. Employment data (Mandays) .. .. (a) Labour requirements during the construction phase :—

Year.	Skilled persons.	Technical.	Non-technical.	Unskilled.
1969-70	..			
1970-71	..			
1971-72	..	..	..	..
1972-73	..			
1973-74	..			

(b) Estimated requirements of labour during the operational maintenance phase :—

Year.	Technical.		Non-technical.	Unskilled.
	Degree.	Diploma.		
(Rs. in lakhs.)				
1969-70	..	2.5	7.25	.. 10.15
1970-71	..	2.5	7.25	.. 10.15
1971-72	..	2.55	7.26	.. 10.22
1972-73	..	2.55	7.26	.. 10.22
1973-74 (Prepared)		0.16	0.70	.. 99
FIFTH FIVE YEAR PLAN	..	0.90	9.60	.. 1,25.00

## CHECK LIST IN RESPECT OF WESTERN KOSI CANAL.

Name of the State—Bihar.

## WESTERN KOSI CANAL.

- Name of the Project with brief description and location. It comprises a main Canal 70 miles length with a capacity of 7,000 cusecs water. It is designed to irrigate 9.72 lakhs acres in Saharsa district in North Bihar and Saptari district in Nepal and Darbhanga district.
- Commencement .. .. 1969.
- Estimated year of completion .. .. 1979.
- Cost estimated and outlays .. .. (a) Approved cost—Total—Rs. 1326 lakhs (in 1967).  
(b) Total—Rs. 41.62 lakhs (in 1973)...  
(c) Outlays and Expenditure—

Expenditure up to 1968-69.	Outlay approved 1969-74.	Actual Expenditure.				Anticipated Expenditure.	Proposed outlays 1973-74.	Fifth-Plan Target.
		1969-70.	1970-71.	1971-72.	1972-73.			
Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.
Foreign Ex-change.	Foreign Ex-change.	Foreign Ex-change.	Foreign Ex-change.	Foreign Ex-change.	Foreign Ex-change.	Foreign Ex-change.	Foreign Ex-change.	Foreign Ex-change.
46	50	2	3	..	85	..	4,00	3380

## STATEMENT IV—contd.

## 5. Programme of output/benefits—

Items.	Units.	Progress upto 1968-69.	Target Fourth Plan.	Achievement.			Progress 1972-73.	Target for 1973-74.
				1969-70.	1970-71.	1971-72.		
1	2	3	4	5	6	7	8	9
Area under irrigation—								
(a) Potential .. ..	'000 acres	..	..	..	..	..	..	..
(b) Utilization .. ..	'000 acres	..	..	..	..	..	..	..
Training of the technical and managerial personnel.	..	..	..	..	..	..	..	..

## 6. Employment data (Mandays) .. .. (a) Labour requirement during the construction phase of skilled personnel :—

Year.	Technical.		Non-Technical.	Un-skilled.
	Degree.	Diploma.		
1969-70 ..	3,650	60,225	..	1,00,375
1970-71 ..	3,650	60,225	..	1,00,375
1971-72 ..	3,650	60,225	..	1,00,375 ..
1972-73 ..	3,650	60,225	..	1,00,375
1973-74 ..	14,000	40,000	..	70,00,000
End of Fifth Five Year Plan.	1,00,000	4,00,000	..	5.5 crores.

## (b) Estimated requirements of labour during operational/maintenance—

Year.	Technical.		Non-Technical.	Un-skilled.
	Degree.	Diploma.		
1969-70 ..	..	..	..	..
1970-71 ..	..	..	..	..
1971-72 ..	..	..	..	..
1972-73 ..	..	..	..	..
1973-74 ..	..	..	..	..
End of Fifth Five Year Plan.	..	..	..	..

## DRAFT FIFTH YEAR PLAN.

## CHECK LIST IN RESPECT OF PRINCIPAL PROJECT COSTING RS. 5 CRORES AND ABOVE.

1. Name of Project with brief description, location and District benefited. In case of multi-purpose and inter-state projects, details of sharing of cost and benefits among various purposes and states may be indicated.
- The Gandak Irrigation and Power Project includes the following major units of works.
- (1) A Barrage 2,425' long across river Gandak at Valmikinagar below the existing Tribeni Canal Head Regulator. (2) The main Western Canal has a C.C.A. of 5,70 lakh H.A. in Bihar and 5.39 lakh H.A. in Uttar Pradesh. A separate Canal is to take off above the Western under sluice of the Barrage. Originally it was to irrigate a G.C.A. of 0.16 lakh H.A. in Bhairwa district of Nepal, but now on the request of H.M.G. Nepal an additional area of 0.25 lakh H.A. is to be irrigated in Marchiliwar area of Nepal. This thus will cater for a total area of 0.41 lakh H.A. for which it has been decided to construct a head regulator for a discharge of 2,500 cusecs out of which

## STATEMENT IV—contd

750 cusecs will be reserved for Nepal. (3) The main Esatern Canal has a gross area of 6.85 lakh H.A. in Bihar and, in addition it will command 0.47 lakh H.A. G.C.A. in Nepal. The existing Triben Canal will be a branch of this system. (4) A Hydroelectric power House with an installed capacity of 15 M.W. on Main Western Canal which is to be eventually presented to H.M.G. Nepal Distrit to be benefitted in Bihar area as under :

District.	Irrigable area in lakh H.A.
Saran .. ..	4.79
Champan .. ..	3.20
Muzaffarpur .. ..	2.82
Darbhangha .. ..	0.70
<b>TOTAL .. ..</b>	<b>11.51</b>

*Sharing of cost.*—For Nepal benefit works both Irrigation and Power the entire cost is to be met by the Government of India. The remaining cost with regard irrigation benefits Bihar and Uttar Pradesh the cost is to be shared between these two States on the basis of agreement which is based on Khariff withdrawals.

2. Date of commencement .. .. 1960-61.
3. Estimated date of completion .. .. 1977-78.
4. Cost estimates and outlays (Rs. in lakhs) .. (a) Approved cost .. Total—Rs. 1,19.26 lakhs (including Nepal benefit.)  
Foreign Exchange—Rs. 2,80 lakhs.
- (b) Revised cost .. Total—Rs. 1,83.36 lakhs (Including benefit schemes.)  
Foreign Exhcnage—Rs. 280 lakhs.
- (c) Outlay and Expenditure :—

Items.	Expenditure upto 1968-69.		Outlay approved. 1969-74.		Expenditure 1969-72. (actual).		Expenditure 1973-73. Antixipated.		Outlay approved 1973-74.		Total Fourth Plan.		Fifth Plan Outlya.	
	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.
I. Bihar Portion ..	48,72	..	59,50	..	39,14	..	13,00	..	18,00	..	70,14	..	44,87	..
II. Nepal Benefit Scheme	5,54	..	5,50	..	8,33	..	2,50	..	1,00	..	12,33	..	1,78	..

## 5. Programme of output/benefits—

Items.	Unit.	Progress up to 1968-69.	Target for Fourth Plan.	Achive-ment of 1971-72.	To end 1972-73 Anticipated.	1973-74 Target.	Traget for Fifth Plan.	Remarks.
I. Creation of poten-tial.	000 H.A.	18.93	4,06.00	1,89.39	3,48.09	4,86.00	11,51.33	Reasons for shortfall in the target of benefit to end of Fourth Plan and target in utiliza-tion and action taken/proposed to be taken.
II. Utilization	1000 H.A.	15.63	1,36.18	51.00	96.74	1,36.18	8,97.60	

## STATEMENT IV—contd.

6. Employment date (Mandays) . . . . . (a) Labour requirements during the construction phase of Skilled persons :—

Year.	Technical.		Non-Technical.	Un-skilled.
	Degree.	Diploma.		
1971-72 ..	54,750	2,55,500	16,55,750	1,13,15,000
1972-73 ..	60,000	3,00,000	20,00,000	1,20,00,000
1973-74 ..	60,000	3,00,000	20,00,000	1,20,00,000
Fifth Plan 1974-775.	3,00,000	15,00,000	1,00,00,000	6,00,00,000

(b) Estimated requirements of labour during the operational/maintenance phase—

Year.	Technical.		Non-Technical.	Un-skilled.
	Degree.	Diploma.		
1971-72 ..	7,500	30,000	2,25,000	9,80,000
1972-73 ..	1,0000	40,000	3,00,000	9,00,000
1973-74 ..	10,000	40,000	3,00,000	9,00,000
Fifth Plan 1974—79.	50,000	2,00,000	15,00,000	45,00,000

Name of State—Bihar.

1. Name of project with brief discription, location and district benefited. In cane of multi-purpose and Inter State Project, details of sharing of cost and benefit among various purpose and state may be indicated. Some high level canal is an irrigation project comprising of two high level canals namely western high level and eastern high level of taking of stream of Sone Barrage located at Indrapuri on River Sone. District of Gaya and Shahabad (Old) will be benefited from this project.

2. Date of commencement .. .. 1968.

3. Estimated date of acomplition .. .. 1975.

4. Cost estimate and outlay (Rs. in Lakhs)—

(a) Approved cost—Total F.E. .. Rs. 8,85.00 lakhs.

(b) Revised cost—Total F.E. .. Rs. 13,54.00 lakhs.

(c) Outlay and expendit ure :—

Serial no.	Expenditure up to		Outlay approved 1969—74.		1969—72 actual.		1972-73 Anticipated.		1973-74 outlay approved.		Total Fourth Plan.		Fifth Plan outlay.	
	Total.	F. E.	Total.	F. E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	1

1 Sone high level canal—

33.00 .. 7,14.00 .. 3,53.00 .. 2,75.00 .. 4,25.00 .. 10,53.00 .. 2,68.00 ..

## STATEMENT IV—contd.

## 5. Programme of outlay/Benefits.

Item.	Unit.	Progress up to 1968-69.	Target for Fourth Plan.	Achievement to the end of Target for Fifth Plan.			Remarks.	
				1971-72.	1972-73 Anticipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9
1. Irrigation—								
(a) Potential .. ..	'000 Hactares	Nil	72.85	8.17	21.85	72.85	1,61.88	Reasons for short fall in the target of benefits to end of Fourth Plan utilization and action taken/proposed to be taken.
(b) Utilization .. ..	'000 Hactares	Nil	56.32	5.66	12.14	56.32	1,61.88	

## 6. Employment data (Mandays)—

## (a) Labour requirement during the construction phase—

	Skilled personal.	Non-Technical.	Unskilled.
Technical 54,750	Deploma 3,48,000	6,30,000	43,80,000

## Name of the State—Bihar.

1. Name of Projects with brief discription location and districts benifited. In case of multi-purpose and Inter State projects, details of Sharing of cost and benefits among various purpose and states may be indicated. N.K. Scheme comprises of a dam to be constructed on River North Koel at Kutku and a barrage at Mohamad Ganj and right bank canal scheme to irrigate the area of 4.5 lakh acres (g.e.A.) in the district of Palamau and Gaya.
2. Date of commencement .. .. 1970-71.
3. Estimate data of completion .. .. 1980-81.
4. Cost Estimates and outlay (Rs. in lakhs)—
- (a) Approved cost—Total F.E. .. .. Rs. 30.86 crores (Not yet approved government of India).
- (b) Revised cost—Total F.E. .. ..
- (c) Outlay and Expenditure—

Name of the project.	Expenditure up to 1968-69.		Outlay approved 1969--71		Expenditure.				1973-74 outlay approved.		Total Fourth Plan		Fifth Plan outlay	
					1969-74 Actual.		1972-73 Anticipated.							
	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
N. K. project ..	Nil	..	203	..	40	..	200	..	200	..	440	..	1500	..

STATEMENT IV—*vcontd.*

## 5. Programme of output/Benefits—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth plan.	Achievement to end of			Target for Fifth plan.	Reason for short fall in the target of Fourth Plan and lag in utilization and action taken/Proposed to be taken.
				1971-72.	1972-73 Anti-cipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9
N. K. Project—								
(a) Potential ..	.. '000 Hactares	..	..	..	..	..	32.40	
(b) Utilization	.. '000 Hactares	..	..	..	..	..	16.20	

## 6. Employment data (mandays)—

## (a) Labour requirement during the construction phase—

1970-71 to 1980-81	Numbers of persons employed during construction phase. 2.35 crores.
--------------------------	--

Name of State—Bihar.

Bagmati Irrigation Scheme.

1. Name of Projects with brief description, location and districts benefitted. In case of multi-purpose and inter State Projects, details of sharing of cost benefits among various purposes and States may be indicated.

*Location.*—2 miles below Dheng Railway Bridge.  
*District Benefitted.*—Darbhanga, Sitamarhi and Muzaffarpur.  
Total benefitted area—1,03,000 hectares.

The Scheme envisages the Construction of a barrage across river Bagmati about 2 miles below the Dheng Railway Bridge. The total length of the barrage will be 1,992 ft. This will be a concrete Barrage with 7' high steel gate. A road 22' wide will be constructed over the barrage which will be capable of carrying heavy truck and Defence vehicles.

Provision has been made for two head regulators one on the right side and the other on the left side of the river with capacity of 1,45 cusecs and 2,250 cusecs respectively.

The barrage site was previously fixed at village Debapur which about 10 miles below dheng Railway bridge no. 89. But due change in the course of the river Bagmati, the site was shifted about 2 miles below the Dheng Railway Bridge.

The construction work of the barrage is under progress. The affluents of the Barrage is under construction. The tender for the main Barrage has been called for.

2. Date of Commencement	..	..	1971-72.
3. estimated date of completion	..	..	1978-79.
4. Cost estimates and outlays (Rs. in Lakhs)—			
(i) Head works	..	..	..
(ii) Canals	..	..	Rs. 5,78.10 lakhs
(iii) Distribution system	..	..	..
(a) Approved cost	..	..	Total 5,78.10 lakhs. Foreign exchange—Nil.
(b) Revised Cost	..	..	Total Foreign exchange

## STATEMENT IV—contd.

## (c) Outlay and expenditure—

Expenditure up to 1968-69.		Outlay approved 1969-74.		Expenditure 1969-72 (actual).		Total 1972-73 (Anticipated).	Total 1973-74 outlay approved.	Total Fourth Plan.	Total Fifth Plan outlay.
Total.	Foreign exchange.	Total.	Foreign exchange.	Total	Foreign exchange.				
1	2	3	4	5	6	7	8	9	10
Nil	Nil	2,80.00	..	32.29	..	31.45	50.00	1,13.74	4,64.36

## 5. Programme of output/benefits—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth Plan.	Achievement to end of—			Target for Fifth Plan.	Reasons for short-fall in target of benefits to the end of Fourth Plan and lag in utilization and action taken/proposed to be taken.	
				1971-72	1972-73 Anti-Target.	1973-74 Target.			
1	2	3	4	5	6	7	8	9	
(i) Potential	..	..	1,000 Hectares	..	..	..	..	1,03.00	
(ii) Utilization	..	..	1,000 Hectares	..	..	..	..	1,03.00	

## 6. Employment data (Mandays)—

## (a) Labour requirements during construction phase—

	Skilled personnel.			Unskilled.
	Degree.	Diploma.	Not-Technical.	
1971-72	..	..	..	..
1972-73	..	..	3 ..	..
1973-74	..	..	3 ..	..
Fifth Plan (1974-7f)	..	..	1,25,000	2,00,000
				2,50,000
				12,50,000

## (f) Estimate requirements of labour during the operational/Maintenance phase.

	Skilled personnel Technical.			Unskilled.
	Degree.	Diploma.	Not-Technical.	
1971-72	..	..	..	..
1972-73	..	..	..	..
1973-74	..	..	..	..
Fifth Plan (1974-7f)	..	..	5,000	16,000
				25,000
				1,00,000

Completion of all phases of project.

7. Indicate the various main components of the project (Dams, head works, main canals and distribution systems) completed up to 1971-72, likely to be completed during 1972-73 and works to be taken up during 1973-74 and the Fifth Plan and the outlays proposed on those components during 1973-74 and the Fifth Plan :—

The Construction work has already been taken up during the Fourth Plan period. The work is so phased that the scheme can be completed at the end of the Fifth Plan. The anticipated expenditure during the Fifth Plan is 464,36 lakhs,

## STATEMENT IV—contd.

Name of State—Bihar.

## SIKTIA BARRAGE SCHEME.

1. Name of project with brief description, location and district benefited. In case of multi-purpose and interstate projects, details of sharing of cost and benefits among various purposes and states may be indicated.
- Location—Siktia village.  
District benefited—Santhal Pargana.  
The Siktia Barrage Scheme envisages the construction of a Barrage 24' high across the river Ajay near village Siktia below the confluence of two important rivers namely Pathro and Jainti.  
The Scheme will provide irrigation to 90,000 acres of Kharif and 10,000 acres of Rabi and left bank only.  
The estimated cost of the Scheme is Rs. 921 lakhs. The anticipated expenditure during the 5 years of the Fifth Five Year Plan is Rs. 8,92.75 lakhs.  
The construction programme will be so phased that the irrigation would start from the 7th year of the start of the scheme. Out of this a sum of Rs. 28.25 lakhs will be spent for preparatory works during the Fourth Plan period.
2. Date of commencement .. .. 1972.
3. Estimated date of completion .. .. 1978-79.
4. Cost estimates and outlays (Rs. in lakhs)— Total cost Rs. 921 lakhs.
- (i) Head works .. ..
- (ii) Canals .. ..
- (iii) Distribution system .. ..
- (a) Approved cost .. .. Total Rs. 921 lakhs.  
Foreign Exchange—Nil.
- (b) Revised cost .. .. Total cost—Rs. 921.00 lakhs.  
Foreign Exchange—Nil.
- (c) Outlay and expenditure—(Rs. in lakhs)

Expenditure upto 1968-69.		Outlay approved 1969-74.		Expenditure.				1973-74 outlay approved.		Total Fourth plan.		Fifth Plan outlay.	
Total.	F.E.	Total.	F.E.	—1969-72 actual.		1972-73 Anticipated.		Total.	F.E.	Total.	F.E.	Total.	F.E.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
..	..	..	..	..	..	5.25	..	23.00	..	28.25	..	8,92.75	..

## 5. Programme of output/benefits—

Item.	Unit.	Progress upto 1968-69.	Target for Fourth Plan.	Achievement to end of—			Target for Fifth Plan.	Reasons for shortfall in target of benefits to the end of Fourth Plan and lag in utilisation and action taken/proposed to be taken.
				1971-72.	1972-73 Anticipated.	1973-74. Target.		
1	2	3	4	5	6	7	8	9
(i) Potential	.. 1000 hect.	..	..	..	..	..	36	Due to lack of fund.
(ii) Utilisation	.. 1,000 hecets.	..	..	..	..	..	36	



## STATEMENT IV—contd.

## 6. Employment data (Mandays)—

## (a) Labour requirements during the construction phase—

Year.	Skilled personnel.			Non-Technical.	Un-skilled.
	Degree.	Diploma.			
1971-72	..	..	..	..	..
1972-73	..	..	..	..	..
1973-74	..	..	..	..	..
Fifth Plan 1974-75	..	2,00,000	3,25,000	4,00,000	20,00,000

## (b) Estimated requirements of labour during the Operational/Maintenance Phase—

Year.	Skilled personnel.				Non-Technical.	Un-skilled.
	Technical.		Diploma.			
	Degree.					
1971-72	..	..	..	..	..	..
1972-73	..	..	..	..	..	..
1973-74	..	..	..	..	..	..
Fifth Plan 1974—79 (Completion of all phases of projects.)	..	5,000	16,000	25,000	1,00,000	..

7. Indicate the various main components of the project (Dams, Head works, main canals and distribution system) completed upto 1971-72 likely to be completed during 1972-73 and the work to be taken up during 1973-74 and the Fifth Plan and the outlays proposed on these components during 1973-74 and the Fifth Plan.

The construction work of colony and approach road has been taken up in 1973-74. The project will be completed during the Fifth Five Year Plan.

The anticipated expenditure during the Fifth Plan is Rs. 8,92.75 lakhs. The work has not been in progress during the Fourth Plan period due to non-availability of fund. The work is so phased that irrigation should start at the end of Fifth Plan period.

## Name of State—Bihar.

1. Name of Projects with brief description, location and districts benefited. In case of Multipurpose and Inter-State Projects details of sharing of cost and benefited among various purpose and States may be indicated.

Subernarekha Project envisages construction of two dams one on the main river at Chandil and 2nd on the tributary Khar kai near Chaibasa with three barrage. It will provide irrigation in a gross area of 6.5 lakh acres in the district of Singhbhum besides industrial and during water supply and Flood protection in the lower reaches of the river.

2. Date of commencement .. .. 1973-74.

3. Estimate date of completion .. .. 1980-81.

## 4. Cost Estimates and outlays (Rs. in lakhs).—

(a) Approved cost .. .. Total—100 crores (Not yet approved Government of India.)

(b) Revised cost .. .. Total—Rs.

Foreign Exchange—

## (c) Outlay and Expenditure—

Name of the Project.	Expenditure up to 1968-69.		Outlay approved 1969—74.		Expenditure.				1973-74 outlay approved.		Total Fourth Plan		Fifth Plan outlay.	
					1969—72 Actual.		1972-73 Anticipated.							
	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Subernarekha Project.	..	..	..	..	..	9	..	..	..	..	..	..	20.00	..

## STATEMENT IV—contd.

## 5. Programme of outpvt/Bene'ts—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth plan.	Achievement to end of			Target for Fifth plan.	Reason for short fall in the target of benefits to end of Fourth Plan and lay in utilisation and action taken/Proposed to be taken.
				1971-72.	1972-73 Anticipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9

## Subernarekha—

(a) Potential	..	000 H.A.	..	..	..	..	60.700	
(b) Utilization	..	000 H.A.	..	..	..	..	30.360	

## 6. Employment data (Mandays)—

## (a) Labour requirement during the Construction phase.—

1973-74 to 1980-81	Persons employed during construction phase. Rs. 6.18 crores.
--------------------------	---

## Name of the State—Bihar.

- Name of project with brief description, location and districts benefitted in case of multipurpose and inter-state project details of sharing of cost and benefitted among various proposed and states may be indicated. Konar Irrigation Scheme envisages diversion of Konar water partly through open channel and partly through tunnel for the Irrigation of 1.70 lakh acres in the district of Hazaribagh.
- Date of commencement .. .. 1973-74.
- Estimated date of completion .. .. 1978-79.
- Cost Estimates and outlays (Rs. in lakhs).—
  - Approved cost .. .. Total—Rs. 11.00 lakh (Not yet approved Government of India.)  
Foreign Exchange—
  - Revised cost .. .. Total—Rs.  
Foreign Exchange—
  - Outlay and Expenditure—

Name of the project.	Expenditure up to 1968-69.		Outlay approved 1969-74.		Expenditure.				1973-74 outlay approved.		Total Fourth Plan		Fifth Plan outlay.	
	Total.	F.E.	Total.	F.E.	1969-72 Actual.		1972-73 Anticipated.		Total.	F.R.	Total.	F.E.	Total.	F.E.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Konar Project ..	..	..	..	..	..	..	..	..	..	..	..	..	6.00	..

## STATEMENT IV—contd.

## 5. Programme of output/Benefits—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth plan.	Achievement to end of			Target for Fifth plan.	Reasons for short fall in the target of benefits to end of Fourth Plan and log in utilization and action taken/Proposed to be taken.
				1971-72.	1972-73 Anticipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9
Irrigation—								
(a) Potential	.. '000 H.A.	..	..	..	..	..	40.50	
(b) Utilization	.. '000 H.A.	..	..	..	..	..	20.25	

## 6. Employment data (Man days)—

## (a) Labour requirements during the construction phase—

Persons to be employed during construction phase.	
1973-74 to 1978-79	Rs. 0.75 crores.

## Name of the State—Bihar.

- Name of project with brief description, location and districts benefitted. In case of multi-purpose and inter-state projects data, details of sharing of cost and benefits among various purpose and states may be indicated. North Koel pnd (Sone) Tributary development Scheme comprises of four dams on river Auranga, Amanat, Table and Kanhar. These will irrigate area of 2.55 lakh acres, 1.5 lakh acres, 0.50 lakh acres pnd 5.5 lakh acres respectively in the districts of Palamau.
- Date of commencement .. .. 1974-75.
- Estimated date of completion .. .. 1980-81.
- Cost estimated and outlays (Rs. in lakhs)—
  - Approved cost—
    - Auranga .. .. Rs. 19 crores.
    - Amanat .. .. Rs. 7.25 crores.
    - Table .. .. Rs. 6.25 crores.
    - Kanhar .. .. Rs. 51.00 crores.
  - Revised cost .. ..
  - Outlay and expenditure—

Name of the project.	Expenditure up to 1968-69.		Outlay approved		Expenditure.				1973-74 outlay approved.		Total Fourth Plna.		Fifth Plan outlay.	
					1969-72 Actual.		1972-73 Anticipated.							
	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	G.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
North Koel and (Sone) Tributary Development Scheme.	..	..	..	..	..	..	..	..	..	..	..	..	200	..



## STATEMENT IV—contd.

Name of the State—Bihar.

## 5. Programme of output/Benefits.—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth plan.	Achievement to end of			Target for Fifth plan.	Reasons for short-fall in the target of benefits to the end of Fourth Plan and log in utilization and action taken/Proposed to be taken.)
				1971-72.	1972-73 Anticipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9
(i) Potential	.. 1,000 Hectares	..	..	..	..	..	8.00	
(ii) Utilization	.. 1,000 Hectares	..	..	..	..	..	8.00	

## 6. Employment data (Mandays)—

## (a) Labour requirements during the construction phase—

	Skilled persons.			Un-skilled.
	Degree.	Diploma.	Non-Technical.	
1971-72	..	..	..	..
1972-73	..	..	..	..
1973-74	..	..	..	..
Fifth Plan 1974—79	..	1,50,000	2,50,000	3,00,000

## (b) Estimated requirements of Labour during the operational/Maintenance phase—

	Skilled personnel.			Un-skilled.
	Technical.		Non-Technical.	
	Degree.	Diploma.		
1971-72	..	..	..	..
1972-73	..	..	..	..
1973-74	..	..	..	..
Fifth Plan (1974—79) completion of all phases of projects.	..	5,000	16,000	25,000

7. Indicate the various main components of the project (Dams, Head works, Main canals and distribution system) completed upto 1971-72 likely to be completed during 1972-73 and the works to be taken up during 1973-74 and the Fifth Plan and the outlays proposed on those components during 1973-74 and the Fifth Plan.
- The work will be taken up during Fifth Plan period and about 50 per cent work will be completed. The whole work can not be completed due to non-availability of fund.

## PUNASI RESERVOIR SCHEME.

1. Name of Projects with brief description, location and districts benefited. In case of multipurposes and inter state projects, details of sharing of cost and benefits among various purposes and states may be indicated.

*Location.*—Punasi Village.

*District benefited.*—Santhal Parganas.

Punasi Reservoir Schime envisages the construction of an earthen dam across the river Ajai. The scheme will provided irrigation to gross area of 1,06,937 acres in the Santhal Pargana district. The Punasi Reservoir Project site is located at latitude 24° 28' 43.5" N and Longitude 86° 33' 74.5" E vide toposheet no. 72/1/1971. The project site is 25 kms. from Deoghar,

The scheme will provide irrigation in the drought prone district of Santhal Pargana district. The area within the command has got a population of 81,607 majority of which is Scheduled Tribes and extremely poor.

2. Date of commencement .. .. 1974-75.
3. Estimated date of completion .. .. 1979-80.
4. Cost estimates and outlays (Rs. in lakh)—
- (i) Head works .. ..
- (ii) Canals .. .. Rs. 10.35 crores.
- (iii) Distribution system .. ..
- (a) Approved cost .. .. Total—Rs. 10.35 crores.  
Foreign Exchange—Nil.
- (b) Revised cost .. .. Total
- (c) Outlay and expenditure—

Expenditure up to 1968-69.		Outlay approved 1969-74.		Expenditure.				1973-74 outlay approved		Total Fourth Plan.		Fifth Plan outlay.	
				1969-72 (Actual)		1972-73 (Anticipate).							
Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
..	..	..	..	..	..	..	..	..	..	..	..	821	..
												lakh	

5. Programme of output/benefits—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth plan.	Achievement to end of			Target for Fifth plan.	Reason for short-fall in the target of benefits to end of Fourth Plan and lag in utilization and action taken/Proposed to be taken.
				1971-72.	1972-73. Anticipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9
(i) Potentials	.. '000 Hectares	..	..	..	..	..	10.00	Due to lack of fund.
(ii) Utilization	.. '000 Hectares	..	..	..	..	..	10.00	

6. Employment data (Mandays)—

(a) Labour requirements during the construction phase :—

		Skilled Persons..			Un-skilled
		Degree.	Diploma.	Non-Technical.	
1971-72	.. ..	..	..	..	.. ..
1972-73	.. ..	..	..	..	..
1973-74	.. ..	..	..	..	..
Fifth Plan (1974-79)	..	1,70,000	2,80,000	3,50,000	14,00,000

(b) Estimated requirements of labour during the operational maintenance phase.—

	Skilled Personnel.					Un-skilled.
	Technical.			Non-Technical.		
	Degree.	Diploma.				
1971-72 .. ..	..	..	..	..	..	..
1972-73 .. ..	..	..	..	..	..	..
1973-74 .. ..	..	..	..	..	..	..
Fifth Plan 1974-79 completion of all phase of Projects.	5,000	16,000	25,000			1,00,000

Indicate the various main components of the projects (Dams, Head works, Main canals and distribution system) completed up to 1971-72, likely to be completed during 1972-73 and the works to be taken up during 1973-74 and the Fifth Plan and the outlays proposed on those components during 1973-74 and the Fifth Plan.

All the works except Distributories and water courses will be completed during the Fifth Plan period.

Name of the State—Bihar

Burhai Reservoir Scheme

District benefited—Santhal Parganas.

Location—Barhai village

1. Name of Projects with brief description, location and districts benefited. In case of Multipurpose and inter State Projects details of sharing of cost and benefits among various purposes and state may be indicated,

It is one of the Project for development of [Ajay village. It is euvisages, the construction of earthen dam 1400'-0" long at crest and 74'.0" high with gated spillway across the river "Pathro" a tributary of river Ajay near the village "Burhai" it will benefit about 60,000 acres of Kharif land, lying in tribal and drought affected area of Santhal Parganas,

2. Date of Commencement .. 1978-79

3. Estimated date of Completion .. 1981-82

4. Cost estimate and outlays (Rs. in lakhs)—

(a) Approved Cost—Total Foreign exchange—

(i) Head Works .. ..	..	..	..	Rs. 5,26.00 Lakhs.
(ii) Canals .. ..	..	..	..	
(iii) Distribution System .. ..	..	..	..	

(b) Revised cost—total Foreign exchange.

(c) Outlay and Expenditure

Expenditure upto 1968-69.		outlay approved 1969-74.		Expenditure.				1973-74 outlay approved.		Total Fourth Plan.		Fifth Plpn.	
Total.	Foreign exchange.	Total.	Foreign exchange.	1969-72 (Actual).		1972-73 (Anticipated).		Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
..	..	..	..	..	..	..	..	..	..	..	..	20.00 Lakhs,	..

## 5. Programme of out Put/benefits—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth Plan.	Achievement to end of—			Target for Fifth Plan.	Reason for shortfall in the target of Fourth Plan and log in utilization and action taken/Proposed to be taken.
				1971-72.	1972-73 Anticipated.	1973-74 Target.		
I	2	3	4	5	6	7	8	9
(i) Potential	.. 1,000 hectares	..	..	..	..	..	..	
(ii) Utilization	.. 1,000 hectares	..	..	..	..	..	..	

## 6. Employment data (Mandays)—

## (a) Labour requirements during the construction phase.

	Skilled Personnel.				Unskilled.
	Degree.	Diploma.	Non-technical.		
	1	2	3	4	5
1971-72	..	..	..	..	..
1972-73	..	..	..	..	..
1973-74	..	..	..	..	..
Fifth Plan 1974—79	..	12,000	20,000	25,000	1,00,000

## (b) Estimate requirements of labour during the operational/maintenance phase.

	Skilled Personnel.				Unskilled.
	Technical.		Non-technical.		
	Degree.	Diploma.			
	1	2	3	4	5
1971-72	..	..	..	..	..
1972-73	..	..	..	..	..
1973-74	..	..	..	..	..
1973-74	..	..	..	..	..
Fifth Plan 1974—79 completion of all phase f Projects.		5,000	16,000	25,000	1,00,000

7. Indicate the various main components of the Project (Dams, Head Works, Main Canals and distribution system) completed up to 1971-72, likely to be completed during 1972-73 and the works to be taken up during 1973-74 and the Fifth Plan and the outlays purposed on those components 1973-74 and the Fifth Plan.

The construction work can not be started in full speed during the Fifth Plan due to non-availability of fund. Only a portion of the work can be done during Fifth Plan.



## STATEMENT IV—contd.

Name of State—Bihar.

Dhakwa Reservoir Scheme.

1. Name of project with brief description location and district benefitted. In case of multi-purpose and Inter state projects, details of sharing of cost and benefits among various purposes and states may be indicated.

District—Santhal Parganas.

Location—Dhakwa village.

It project envisages the construction of an earthen fill dam 7,000' long and 74' high across the river. "Jaianty" a tributary of Ajay river near the village "Dhakwa". A masonry over flow spillway has been proposed its left bank. It will benefit about 51,000 acres khatri land in its neighbouring area. The command lies in drought affected and tribal areas.

2. Date of commencement .. .. 1978-79.

3. Estimated date of completion .. .. 1981-82.

4. Cost estimates and outlays (Rs. in lakhs)—

(i) Head works .. ..

(ii) Canals .. .. Rs. 6,00.00 lakhs.

(iii) Distribution system .. ..

(a) Approved cost Total Foreign exchange.

(b) Revised cost Total Foreign exchange.

(c) Outlay and expenditure—

Expenditure up to 1968-69.		Outlay approved 1969-74.		Expenditure.				1973-74 outlay approved		Total Fourth Plan.		Fifth Plan outlay.	
				1969-72 Actual.		1972-73 Anticipated.							
Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
..	..	..	..	..	..	..	..	..	..	..	..	20.00 lakhs.	..

5. Programme of output/benefits

Item.	Unit.	Progress up to 1968-69.	Target for Fourth Plan.	Achievement to end of—			Target for Fifth Plan.	Reason for short-fall in the target of benefits to the end of Fourth Plan and being in utilization and action taken/proposed to be taken.
				1971-72.	1972-73.	1973-74.		
1	2	3	4	5	6	7	8	9
(i) Potential	.. 1,000 hectares	..	..	..	..	..	..	
(ii) Utilization	.. 1,000 hectares	..	..	..	..	..	..	

## STATEMENT IV—contd.

Name of State—Bihar.

## 6. Employment data (Mandays)—

## (a) Labour requirement during the construction Phase—

	Skilled Personnel.				Unskilled.
	Degree.	Diploma.	Non-technical.		
	1	2	3	4	5
1971-72	..	..	..	..	..
1972-73	..	..	..	..	..
1973-74	..	..	..	..	..
Fifth Plan 1974—79	..	12,000	20,000	25,000	1,00,000

## (b) Estimated requirements of labour during the operational/maintenance Phase—

	Skilled personnel.				Unskilled.
	Technical.		Non-Technical.		
	Degree.	Diploma.			
	1	2	3	4	5
1971-72	..	..	..	..	..
1972-73	..	..	..	..	..
1973-74	..	..	..	..	..
Fifth Plan 1974—79 completion of all phase of projects.	..	3,000	16,000	25,000	1,00,000

7. Indicate the various main components of the project (Dams Head works, main canals and distribution system) completed up to 1971-72 likely to be completed during 1972-73 and the works to be taken up during 1973-74 and the Fifth Plan and the outlays purposed on these components during 1973-74 and this Fifth Plan.

The construction work can not be stated in full speed during the Fifth Plan due to non-availability of fund. Only a portion of the work will be done during Fifth Plan.

1. Name of project with brief description location and district benefitted. In case of multi-purpose and Inter-state projects details of of sharing of cost and benefits among various purposes and states may be indicated.

Bansloi Reservoir Scheme.

Location—Begni village.

District—Santhal Parganas.

The Scheme envisages the construction of an earth fill dam 70' high and 2,450' long across the river Bansloi near the village Begni in the district of Santhal Parganas. It will provide assumed irrigation to an area of about 30,000 acres lying in draught effected tribal Zones.

2. Date of Commencement

.. .. 1975-76.

3. Estimated date of completion

.. .. 1980-81.

4. Cost estimated and outlay (Rs. in lakhs)—
- (i) Head works .. .. Rs. 500 lakhs.
- (ii) Canals .. ..
- (iii) Distribution system .. ..
- (a) Approved cost—Total Foreign exchange .. ..
- (b) Revised cost—Total Foreign exchange .. ..
- (c) Outlay and expenditure (Rs. in lakhs)—

Expenditure up to 1968-69.		Outlay approved 1969-74.		Expenditure.				1973-74 outlay approved.		Total Fourth Plan.		Fifth Plan outlay.	
				1969-72 Actual.		1972-73 Anticipated.							
Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
..	..	..	..	..	..	..	..	..	..	..	..	275	..
												Lakhs.	

## 5. Programme of out put/benefitted—

Item.	Unit.	Progress up to 1968-69.	Target of Fourth plan.	Total for Fifth plan.	Reasons for short fall in the target of benefits.
1	2	3	4	5	6
Potential .. ..	1,000 hectares	..	..	..	
Utilization .. ..	1,000 hectares	..	..	..	..

## 6. Employment data (Mandays).

## (a) Labour requirement during construction phase—

Period.	Degree.	Diploma.	Non-technical.	Unskilled.
1	2	3	4	5
Fifth Plan 1974-79 ..	100,000	180,000	225,000	9,00,000

## (b) Estimated requirement of labour during operational/maintenance Phase—

Period.	Degree.	Diploma.	Non-technical.	Unskilled.
1	2	3	4	5
Fifth Plan 1974-79 ..	5,000	16,000	25,000	1,00,000

7. Works will be taken up during Fifth Five-Year Plan and about 60% of them will be completed by the end of 1979. The construction work can not be started in full swing during Fifth Plan period due to lack of fund. Only a portion of work will be completed during Fifth Plan.

## STATEMENT IV—contd.

Name of the State—Bihar.

## MOHANE RESERVOIR SCHEME.

1. Name of project with brief description, location and district benefitted. In case of unltipurpose and Inter-state projects details of sharing of cost and benefits among various purposes and states may be indicated. Location—Armadag Village.  
*District benefitted.*—Gaya, Hazaribagh. Mohane Reservoir Scheme envisages the construction of an earthen dam 7,600' long and 147' high with gated masonry spillway in main river action, near the village Armadag in the district of Hazaribagh. Irrigation will be done through pick up Barrage located about 9½ miles distance of the proposed storage site. It is whole command area to be benefitted lie in Gaya district which is chronically drought affected.
2. Date of commencement .. .. 1975-76.
3. Estimated date of completion .. .. 1981-82.
4. Cost estimated and outlays (Rs. in lakhs.)—
- (i) Head works .. .. Rs. 12,00.00 lakhs.
- (ii) Canals .. ..
- (a) Approved cost .. .. Total—  
Foreign Exchange—
- (b) Revised cost .. .. Total—  
Foreign Exchange—

Expenditure up to 1968-69.		Outlay approved 1969-74.		Outlay Expenditure.						Total Fourth plan.		Fifth Plan outlay.	
Total.	F.E.	Total.	F.E.	1969-72 (Actual).		1972-73 Anticipated.		1973-74 outlay approved.		Total.	F.E.	Total.	F.E.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
..	..	..	..	..	..	..	..	..	..	..	..	5.00.00	..

## 5. Programme of out-put/benefitted—

Item.	Unit.	Progress up to 1968-69.	Target of Fourth plan.	Achievement to end of			Total for Fifth plan.	Reason for short-fall in the target of benefits to end of Fourth Plan and lag in utilization and action taken/Proposed to be taken.
				1971-72.	1972-73 Anticipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9
(i) Potential	1,000 Hectares	..	..	..	..	..	24.00	
(ii) Utilisation	1,000 Hectares	..	..	..	..	..	24.00	

## 6. Employment data (Manday)W

## (a) Labour requirement during the construction phase—

		Skilled personnel.			Un-skilled	
		Degree.	Diploma.	Non-technical.		
1971-72	..	..	..	..	..	
1972-73	..	..	..	..	..	
1973-74	..	..	..	..	..	
Fifth Plan	1974-79	..	1,00,000	1,80,000	2,25,000	9,00,000

## STATEMENT IV—contd.

## (b) Estimated requirement of labour during the operation/maintenance phase

	Skilled personnel.			Un-skilled.
	Degree.	Diploma.	Non-technical.	
1971-72 .. ..	..	..	..	..
1972-73 .. ..	..	..	..	..
1973-74 .. ..	..	..	..	..
Fifth Plan 1974-79 completion of all phase and projects.	5,000	16,000	25,000	1,00,000

7. Indicate the various gain components of the project (Dam, Head works, Main Canal and distribution system). Completed upto 1971-72, likely to be completed during 1972-73 and the works to be taken up during 1973-74 and the Fifth Plan and the outlays proposed on their components during 1973-74 and the Fifth Plan.

The construction works of the schemes will be started during Fifth Plan period. About 40 per cent work will be completed during the period.

The work can not be completed due to non-availability of fund.

## DRAFT FIFTH FIVE YEAR PLAN

CHECK LIST IN RESPECT OF PRINCIPAL PROJECT COSTING RS. 5 CRORES AND ABOVE.

Name of the State--Bihar.

## TILAIYA DIVERSION SCHEME.

1. Name of project with brief description, location and district benefited. In case of multipurpose and Inter-state Projects, details of shearing of cost and benefits among various purposes and states may be indicated.

*District benefitted.—Gaya.*

This project envisages construction of a transbasin water conductor system 40,800 ft. long of which 20,000 ft. is turned portion and the rest open channel having carrying capacity of 2,000 cusecs to direct water from existing Tilaiya Reservoir (D.V.C.) across the ridge to Dhadhar river (in Ganga basin). The water is diverted to be picked up by a weir proposed at river Dhadhar which with the help of a canal of either bar will provide irrigation facilities in the district of Gaya (Bihar.)

The estimated cost of the project is Rs. 9.87 lakhs (excluding Rs. 3.00 lakhs the share cost of Tilaiya Dam) It will provide irrigation in a G.A. of 1,30,000 acres (and N.C.A. 90,000 acres on kharif) 18,000 acres of Rabi. The anticipated during the Fifth Five Year Plan is Rs. 5.00 lakhs.

2. Date of commencement .. .. 1975-76.

3. Estimated date of completion .. .. 1982-83.

4. Cost Estimated and outlays (Rs. in lakh)—

(i) Head Works .. ..	}	Rs. 9.87.00 lakhs excluding Rs. 3.00 lakhs the share cost of Tilaiya.
(ii) Canals .. ..		
(iii) Distribution system .. ..		
(a) Approved cost .. ..	Total—	
	Foreign Exchange—	
(b) Revised cost .. ..	Total—	
	Foreign Exchange—	

## (c) Outlay and Expenditure—

Expenditure up to 1968-69.		Outlay approved 1969-74.		Expenditure.						1973-74 Outlay approved.		Total Fourth plan.		Fifth Plan outlay.	
Total.	F.E.	Total.	F.E.	1969-72 Actual.		1972-73 Anticipated.		Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
														5.00 lakhs	..

## 5. Programme of output/benefits—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth plan.	Achievement to end of			Target for Fifth plan.	Reasons for short-fall in the target of benefits to the Fourth Plan and lag in utilization and action taken/Proposed to be taken.
				1972-73.	1972-72 Anticipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9
(i) Potential	.. 1,000 hector	..	..	..	..	..	12	Due to non availability of fund.
(ii) Utilisation	.. 1,000 hectare	..	..	..	..	..	12	

## 6. Employment data (Mandays)—

## (a) Labour requirements during the construction maintenance phase—

			Skilled personnel.			Un-skilled.
			Degree.	Diploma.	Non-technical.	
1971-72	..	..	..	..	..	..
1972-73	..	..	..	..	..	..
1973-74	..	..	..	..	..	..
Fifth Plan 1974-79	..	..	1,00,000	1,70,000	2,25,000	8,50,000

## (b) Estimated requirements of labour during the operational—

			Skilled personnel.			Un-skilled.
			Degree.	Diploma.	Non-technical.	
1971-72	..	..	..	..	..	..
1972-73	..	..	..	..	..	..
1973-74	..	..	..	..	..	..
Fifth Plan 1974-79 completion of all phases and project.	..	..	5,000	16,000	25,000	1,00,000

7. Indicate the various main components of the Project (Dam, Head works, Main canals and distribution system) completed up to 1971-72 likely to be completed during 1972-73 and the works to be taken up during 1973-74 and the Fifth Plan and the outlays proposed on these components during 1973-74 and the Fifth Plan.

The construction work will be started during the Fifth Plan period only Rs. forty five per cent work can be completed during the plan due to non availability of whole fund. The irrigation can not be started by the end of Fifth Plan on the allotted fund.

## STATEMENT IV—contd.

Name of the State—Bihar

## BARNAR RESERVOIR SCHEME.

1. Name of project with brief description, location and districts benefitted. In case of multipurpose and Inter-state projects, details of sharing of cost and benefits among various purposes and states may be indicated. *Location*—It is located 5 kms. south of Batia village of Monghyr district. This project envisages the construction of storage dam (Stone masonry) 935 ft. long and 243 ft. high on river Barnar. It will provide irrigation in a gross area of 78,500 acres, N.C.A. 48,000 acres Kharif and 12,000 acres Rabi (followed by Kharif cultivation) in the draught area of the district. The estimated cost of the project is Rs. 78.82 crores. The anticipated expenditure during the Fifth Five Year Plan is Rs. 7.00 crores. The construction programme will be so phased that irrigation will start with the completion of reservoir. Agriculture in the region suffers from erratic and inadequate rainfall.
2. Date of commencement .. .. 1974-75.
3. Estimated date of completion .. .. 1979-80.
4. Cost estimated and outlays (Rs. in lakhs)—
- (i) Head works .. ..
- (ii) Canals .. .. Rs. 7.88 crores.
- (iii) Distribution system .. ..
- (a) Approved cost .. .. Total—Rs.  
Foreign Exchange—
- (b) Revised cost .. .. Total—Rs.  
Foreign Exchange—
- (c) Outlay and expenditure—

Expenditure up to 1968-69.		Outlay approved 1969-74.		Expenditure.									
				1969-72 (Actual)		1972-73 Anticipated.		1973-74 outlay approved.		Total Fourth Plan.		Fifth Plan outlay.	
Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.	Total.	F.E.
1	2	3	4	5	6	8	8	9	10	11	12	13	14
..	..	..	..	..	..	..	..	..	..	..	..	7.88	..
												lakhs	

## 5. Programme of output/benefits—

Item.	Unit.	Proress up to 1968-69.	Target for Fourth plan.	Achievement to end of			Target for Fifth plan.	Reason for short-fall in the target of benefits to end of Fourth Plan, and lag in utilization and action taken/Proposed to be taken.
				1971-72.	1972-73 Anticipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9
(i) Potential	.. 1,000 Hectares	..	..	..	..	..	24.30	
(ii) Utilisation	.. 1,000 Hectares	..	..	..	..	..	24.30	

STATEMENT IV—*contd.*

Name of the State—Bihar.

## 6. Employment data (Mondays)—

## (a) Labour requirement during the construction phase—

	Skilled personnel.			Un-skilled. Personnel
	Degree.	Diploma.	Non-technical.	
1971-72 .. ..	..	..	..	..
1972-73 .. ..	..	..	..	..
1973-74 .. ..	..	..	..	..
Fifth Plan 1974—79 ..	1,45,000	2,40,000	3,00,000	12,00,000

## (b) Estimated requirements labour during the operational/maintenance phase—

	Skilled personnel.			Un-skilled. Personnel
	Degree.	Diploma.	Non-technical.	
1971-72 .. ..	..	..	..	..
1972-73 .. ..	..	..	..	..
1973-74 .. ..	..	..	..	..
Fifth Plan 1974—79 completion of all phase and project.	5,000	16,000	25,000	1,00,000

7. Indicate the various main components of the project (Dam, Head works, Main canals and distribution system) completed upto 1971-72, likely to be completed during 1972-73 and the works to be taken up during 1973-74 and the Fifth Plan and the outlay proposed on these components during 1973-74 and this Plan.
- The work will be started during the Fifth Plan period and whole the work will be completed. The work is so phased that irrigation should start during the Fifth Plan period.

## DURGAWATI RESERVOIR SCHEME.

1. Name of the projects with brief description, location and districts benefited. In case of multipurpose and Inter-state projects, details of sharing of cost and benefits among various purpose and states may be indicated.
- Location.*—Latitude 24.51" N and longitude 83.44"E in the district of Rohtas about 22 miles south of Kudra Police Station.  
*District benefited.*—Rohtas.  
The Durgawati Reservoir Project envisages the construction of an earthen dam, and spillway of stone masonry. It will provide irrigation to net area of 0.60 lakh acres of Kharif, 0.25 lakh acres of Rabi and also escaping water to S.W.H.L. Canal. The estimated cost of the Scheme is Rs. 8.47.00 lakhs. The outlay on the Project would spread over five years. The anticipated expenditure during Fifth Plan period is Rs. 2.00 lakhs.
2. Date of commencement .. .. 1974-75.
3. Estimated date of completion .. .. 1978-79.
4. Cost estimates and outlays (Rs. in lakhs)—
- (i) Head works .. ..
- (ii) Canals .. .. Rs. 8.47 lakhs.
- (iii) Distribution systems .. ..
- (a) Approved cost .. .. Total—Rs.  
Foreign Exchange—
- (b) Revised cost .. .. Total—Rs.  
Foreign Exchange—



## (c) Outlay of expenditure—

Expenditure up to 1968-69.		Outlay approved 1969-74.		Expenditure.						Total Fourth plan.		Fifth Plan outlay.	
Total.	F.E.	Total.	F.E.	1969-72 (Actual).		1972-73 Anticipated.		1973-74 outlay approved.		Total.	F.E.	Total.	F.E.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
..	..	..	..	..	..	..	..	..	..	..	..	..	2.00 lakh

## 5. Programme of output/benefits—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth plan.	Achievement to end of			Target for Fifth pln.	Reason for short-fall in the target of benefits to end of Fourth Plan and lag in utilization and action taken/Proposed to be taken.
				1971-72.	1972-73 Anticipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9
(i) Potential	.. '000 Hectors	..	..	..	..	..	2	
(ii) Utilisation	.. '000 Hectors	..	..	..	..	..	2	

## 6. Employment data (Mandays)—

## (a) Labour requirements during the construction phase—

				Skilled personnel.			Un-skilled.
				Degree.	Diploma.	Non-technical.	
1971-72	..	..	..	..	..	..	..
1972-73	..	..	..	..	..	..	..
1973-74	..	..	..	..	..	..	..
Fifth Plan 1974-79	..	..	1,68,000	2,80,000	3,50,000	14,00,000	

## (b) Estimated requirements of labour during the operational/maintenance phase—

				Skilled personnel.			Un-skilled.
				Technical.		Non-Technical.	
				Degree.	Diploma.		
1971-72	..	..	..	..	..	..	..
1972-73	..	..	..	..	..	..	..
1973-74	..	..	..	..	..	..	..
Fifth Plan 1974-79 completion of all phase and projects.	..	..	5,000	16,000	25,000	1,00,000	

7. Indicate the various main components of the project (Dam, Head works, Main canal and distribution system) completed up to 1971-72, likely to be completed during 1972-73 and works to be taken up during 1973-74 and the Fifth Pln and the outlays proposed on these components during 1973-74 and the Fifth Plan.

Only a portion of work can be started and completed during Fifth Plan period. Only twenty five per cent of the work is expected to be completed on the fund. Whole work can not be completed due to non availability of fund.

## STATEMENT IV—contd.

Name of the State—Bihar.

## SKARI RESERVOIR SCHEME.

1. Name of project with brief description, location and districts benefitted. In case of multipurpose and Inter State projects, details of sharing of cost and benefits among various purposes and states may be indicated.
- Location.*—Dam in located near the village "Jorasona" in Hazaribagh District.  
*District benefitted.*—Gaya, Hazaribagh, Monghyr and Patna.  
It is proposed to construct an earthen dam about  $1\frac{1}{2}$  miles long crest and 100' high across the river Sakari near the village Jorasona in Hazaribagh district. The water is proposed to be released and picked up by a pick up weir, located across the river in Gaya district, about 15 miles distance below the dam site. The chute spillway has been proposed on a saddle available on its left bank.  
It will benefit about 1,37,000 acres of Kharif partially lies in Gaya, Patna and Monghyr district. The whole command lies in drought affected area.
2. Date of commencement .. .. 1975-76.
2. Estimated date of completion .. .. 1981-82.
4. Cost estimated and outlays (Rs. in lakhs)—
- (i) Head works .. ..
- (ii) Canals .. .. Rs. 12.12 lakhs.
- (iii) Distribution syste .. ..
- (a) Approved cost .. .. Total—
- (b) Revised cost .. .. Total—  
Foreign Exchange—
- (c) Outlay and expenditure—

Expenditure up to 1968-69.		Outlay approved 1969—74.		Expenditure.						Total Fourth plan.		Fifth Plan outlay.		
Total.	F.E.	Total.	F.E.	1969-72 Actual.		1972-73 Anticipated.		1973-74 Outlay approved.		Total.	F.E.	Total.	F.E.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
..	..	..	..	..	..	..	..	..	..	..	..	..	2.00 lakhs	..

## 5. Programme of output/benefits—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth plan.	Achievement to end of			Target for Fifth plan.	Reason for short-fall in the target of benefits to end of Fourth Plan and lag in utilization and action taken/Proposed to be taken.
				1971-72.	1972-73 Anticipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9
(i) Potential	.. 1,000 Hecters	..	..	..	..	..	..	Non availability of full fund.
(ii) Utilisation	.. 1,000 Hecters	..	..	..	..	..	..	

## 6. Employment data (Mandays)—

## STATEMENT IV—contd.

## (a) Labour requirements during the construction phase—

	Skilled personnel.					Un-skilled.
	Technical.		Non-Technical.			
	Degree.	Diploma.				
1971-72 .. ..	..	..	..	..	..	..
1972-73 .. ..	..	..	..	..	..	..
1973-74 .. ..	..	..	..	..	..	..
Fifth Plan 1974—79 ..	2,40,000	4,00,000	5,00,000			25,00,000

## (b) Estimated requirements of labour during the operational/maintenance phase—

	Skilled personnel.					Un-skilled.
	Technical.		Non-Technical.			
	Degree.	Diploma.				
1971-72 .. ..	..	..	..	..	..	..
1972-73 .. ..	..	..	..	..	..	..
1973-74 .. ..	..	..	..	..	..	..
Fifth Plan 1974—79 completion of all phases and projects.	5,000	16,000	25,000			1,25,000

7. Indicate the various main components of the project (Dam, Head works, Main canal and distribution system) completed upto 1971-72, likely to be completed during 1972-73 and the works to be taken up during 1973-74 and the Fifth Plan and the outlays proposed on their components during 1973-74 and the Fifth Plan.

The construction work can not be started in full speed during the Fifth plan due to non-availability of fund. Only a portion of work will be done during Fifth Plan.

Name of State Bihar.

Lilajan Reservoir Scheme.

1. Name of project with brief description, location and districts benefitted. In case of multi-purpose and Inter state projects, details of sharing of cost and benefits among various purposes and states may be indicated.

Districts benefitted—Gaya and Hazaribagh.

The project contemplates the construction of an earthen dam 6,320' long and 110' high across the river Lilajan near the village Sanduar Hazaribagh district. The siphway is proposed to be located on a Saddle available on its left bank. This scheme will provide assured irrigation to 1,32,000 acres of kharif including the existing command of Lilajan weir situated lower down near the village Ghorghat. The existing command of Lilajan weir is 48,000 acres mainly falls in Gaya district. The additional command will fall both in Gaya and Hazaribagh district (52,000 acres and 22,000 acres respectively).

The anticipated expenditure during Fifth Plan Period is 200 lakhs.

2. Date of commencement .. .. 1975-76.

3. Estimated date of completion .. .. 1984-85.

4. Cost estimates and outlays (Rs. in lakhs)—

(i) Head works .. ..	..	..	
(ii) Canals .. ..	..	..	Rs. 912 lakhs.
(iii) Distribution system .. ..	..	..	
(a) Approved cost—Total Foreign exchange ..	..	..	
(b) Revised cost—Total Foreign exchange ..	..	..	

(c) Outlay and expenditure—

Expenditure up to 1968-69.		Outlay approved 1969—74.		Expenditure.				1973-74 outlay approved.		Total Fourth Plan.		Fifth Plan outlay.	
Total.	Foreign exchange.	Total.	Foreign exchange.	1969—72 Actual.		1972-73 Anticipated.		Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
..	..	..	..	..	..	..	..	..	..	..	..	200.00	..
												Lakhs.	



## STATEMENT IV—concl'd.

## 5. Programme of out put benefits—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth Plan.	Achievement to end of—			Target for Fifth Plan.	Reason for short-fall in the target of benefits to end of Fourth Plan and lag in utilization and action taken/proposed to be taken.
				1971-72.	1972-73 Anticipated	1973-74 Target.		
1	2	3	4	5	6	7	8	9
(i) Potential	.. 1,000 Hectares	..	..	..	..	..	..	Due to Lack of fund.
(ii) Utilization	.. 1,000 Hectares	..	..	..	..	..	..	

## 6. Employment data (Mandays)—

## (a) Labour requirements during the construction phase—

			Skilled personnel.			Unskilled.
			Degree.	Diploma.	Non-technical.	
1971-72	..	..	..	..	..	..
1972-73	..	..	..	..	..	..
1973-74	..	..	..	..	..	..
Fifth Plan 1974—79	..	..	40,000	70,000	80,000	3,00,000

## (b) Estimated requirements of Labour during the operational/maintenance phase (Mandays)—

			Skilled personnel.			Unskilled.
			Degree.	Diploma.	Non-technical.	
1971-72	..	..	..	..	..	..
1972-73	..	..	..	..	..	..
1973-74	..	..	..	..	..	..
Fifth Plan 1974—79 completion of all phase of Projects	..	..	5,000	16,000	25,000	1,00,000

7. Indicate the various main components of the project (Dams, Head works, Main canals and distribution system) and completed up to 1971-72, likely to be completed during 1972-73 and the works to be taken up during 1973-74 and the Fifth Plan and the outlays proposed on those components during 1973-74 and the Fifth Plan.

The installation of pump can be started during the Fifth Plan period. Whole work can not be completed due to non-availability of fund.

## Name of State—Bihar.

## BATESHWARASTHAN PUMPING SCHEME.

1. Name of project with brief description, location and districts benefitted. In case of multi-purpose and inter-state projects, details of sharing of cost and benefited among various purposes and states may be indicated.

Location—Near Kahalgpon. ,,  
District—Bhagalpur.

The scheme is situated near Kahalgaoon in the district of Bhagalpur. The scheme envisages the installation of pump on the bank of Ganges near Kahalgaoon. Gross Command and net Command of this scheme are 82,208 acres and 50,000 acres respectively water will be pumped into irrigation channel at the rate of 675 acusecs in this scheme. The expected cost amounts to Rs. 7,50,00,000.

2. Date of commencement .. .. 1974-75.

3. Estimated date of commencement .. .. 1978-79.

4. Cost Estimates and outlays (Rs. in lakhs)—

1. Head works	..	..
2. Canals	..	..
3. Distribution system	..	..
		Rs. 750 lakhs.

(a) Approved cost—Total Foreign exchange

(b) Revised cost—Total Foreign exchange

## (c) Outlay and Expenditure—

Expenditure up to 1968-69.		Outlay approved 1969-74.		Expenditure.				1973-74 outlay approved.		Total Fourth Plan.		Fifth Plan outlay.	
				1969-72 Actual.		1972-73 Anticipated.							
Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.	Total.	Foreign exchange.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
..	..	..	..	..	..	..	..	..	..	..	..	7,50.00	..
												Lakhs.	

## 5. Programme of out put/benefits—

Item.	Unit.	Progress up to 1968-69.	Target for Fourth Plan.	Achievement to end of			Target for Fifth Plan.	Reason for short fall in the target of benefits to end of Fourth Plan and lag in utilization and action taken/proposed to be taken.
				1971-72.	1972-73 Anticipated.	1973-74 Target.		
1	2	3	4	5	6	7	8	9
(i) Potentials	.. 1,000 Hectares	..	..	..	..	..	20.3	
(ii) Utilization	.. 1,000 Hectares	..	..	..	..	..	20.3	

## 6. Employment Data (Mandays)—

## (a) Labour requirements during the construction phase—

				Skilled Persons.			Unskilled.
				Degree.	Diploma.	Non-technical.	
1971-72	..	..	..	..	..	..	..
1972-73	..	..	..	..	..	..	..
1973-74	..	..	..	..	..	..	..
Fifth Plan 1974-79	..	..	1,56,000	2,60,000	3,25,000	13,00,000	

## (b) Estimated requirements of labour during the operational/maintenance phase—

				Skilled personnel.			Unskilled personnel.
				Technical.		Non-technical.	
				Degree.	Diploma.		
1971-72	..	..	..	..	..	..	..
1972-73	..	..	..	..	..	..	..
1973-74	..	..	..	..	..	..	..
Fifth Plan 1974-79	Completion of all Phases of Projects.	..	5,000	16,000	25,000	1,00,000	

7. Indicate the various main components of the projects (Dams, Head Works, Main canals and distribution system) completed up to 1971-72, likely to be completed during 1972-73 and the works to be taken up during 1973-74 and the Fifth Plan and the outlays proposed on those components during 1973-74 and the Fifth Plan.

Total work of the Project will be taken up and completed in the Fifth Five-Year Plan. The work is so phased that irrigation should start during Fifth Plan Period.

STATEMENT V.  
DRAFT FIFTH FIVE YEAR PLAN  
PHYSICAL TARGET AND ACHIEVEMENT

Name of the State—Bihar.

Item.	Unit.	Achievement up to 1968-69.	Fourth plan target 1969-74.	Achievement up to			1972-73 Anti-cipated.	1973-74 proposed.	Fifth Plan Target.
				1969-70.	1970-71.	1971-72.			
1	2	3	4	5	6	7	8	9	10
<b>I. GROSS AREA UNDER MAJOR AND MEDIUM IRRIGATION.</b>									
<b>(A) POTENTIAL—</b>									
(a) R.V.P. Department	'000 hectares.	324.29	833.85	359.61	424.32	553.46	773.94	948.50	2,022.78
(b) Irrigation Department.	'000 hectares	971.15	1,088.73	985.95	995.86	1,007.83	1,028.34	1,059.21	1,513.29
<b>TOTAL—(A)</b>		<b>1,295.44</b>	<b>1,922.58</b>	<b>1,345.56</b>	<b>1,420.18</b>	<b>1,561.29</b>	<b>1,802.28</b>	<b>2,007.71</b>	<b>3,536.07</b>
<b>(B) UTILIZATION—</b>									
(a) R.V.P. Department	'000 hectares	141.25	440.00	146.71	131.85	114.30	321.39	462.95	1,702.29
(b) Irrigation Department.	'000 hectares	937.47	1,046.26	929.34	963.74	973.19	967.77	996.87	1,437.06
<b>TOTAL—(B)</b>		<b>1,078.72</b>	<b>1,486.26</b>	<b>1,076.05</b>	<b>1,095.58</b>	<b>1,087.49</b>	<b>1,289.16</b>	<b>1,459.82</b>	<b>3,139.35</b>

STATEMENT  
DRAFT FIFTH

SCHEMewise BENEFITS FROM MAJOR AND

Name of the State—Bihar.

Serial no.	Name of Scheme.	District to benefitted and area.	Ultimate Irrigation	Comulative benefits to end of—			
				1968-69.		Fourth Plan Target.	
				Potential.	Ultimate.	Potential.	Ultimate.
1	2	3	4	5	6	7	8
<b>I. R. V. P. DEPARTMENT.</b>							
<b>MAJOR SCHEMES.</b>							
<b>A. CONTINUING SCHEMES.</b>							
1	Gandak Project .. ..	Champan, Muza- ffarpur, Darbhanga, Saran.	1,152.00	18.93	15.63	486.00	136.12
2	Kosi Project .. ..	Purnia, Saharsa ..	434.00	275.00	120.77	275.00	247.00
3	Western Kosi Canal .. ..	Darbhanga ..	..	..	..	..	..
4	Sone High Level Canal .. ..	Shahabad and Gaya	161.88	..	..	72.85	56.32
5	North Koel Projects .. ..	Palamau ..	..	..	..	..	..
6	Rajpur Canal .. ..	Purnea and Saharsa	142.00	30.36	4.85	..	..
		<b>TOTAL—(A)</b> .. ..	..	324.29	141.25	833.85	440.00
<b>B. NEW SCHEMES.</b>							
1	Subarnarekha Project .. ..	Singhbhum ..	..	..	..	..	..
2	Konar Irrigation Scheme .. ..	Hazaribagh ..	..	..	..	..	..
3	North Koel (and Sone) Tributary Deve- lopment Scheme.	Palamau ..	..	..	..	..	..
		<b>TOTAL—(B)</b> .. ..	..	..	..	..	..
		<b>TOTAL—R.V.P. (A+B)</b> .. ..	..	324.29	141.25	833.85	440.00
<b>IRRIGATION DEPARTMENT.</b>							
<b>A. COMPLETED SCHEMES.</b>							
(a)	Pre-plan Schemes .. ..	..	403.47	403.47	403.47	403.47	403.47
(b)	Schemes completed prior to Fourth Plan during Plan Period						
<b>MAJOR SCHEMES.</b>							
1	Badua Reservoir .. ..	Bhagalpur, Monghyr					
2	Medium Schemes .. ..	Throughout the State	479.39	479.39	479.39	479.39	479.39
3	Sone Remodelling Scheme .. ..	Patna, Gaya, Auran- gabad, Rohtas, Bhoj- pur.					
		<b>TOTAL (A)—(a+b)</b> .. ..	882.86	882.86	882.86	882.86	882.86





STATEMENT  
DRAFT FIFTH

SCHEMEWISE BENEFITS FROM MAJOR AND

Name of the State—Bihar.

Serial no.	Name of Scheme.	District to benefitted and area.	Ultimate Irrigation	Cumulative benefits to end of			
				1968-69.		Fourth Plan Target.	
				Potential.	Ultimate.	Potential.	Ultimate.
1	2	3	4	5	6	7	8
<b>B. CONTINUING SCHEMES.</b>							
<b>I. Major.</b>							
1	Chandan Reservoir Project ..	.. Bhagalpur ..	40.47	9.71	4.45	40.47	22.26
2	Bagmati Barrage ..	.. Muzaffarpur ..	103.60	..	..	..	..
3	Ajoy Barrage at Sikatia ..	.. Santhal Pargana ..	40.40	..	..	..	..
<b>II. Medium.</b>							
1	Kamla Irrigation Extension Scheme ..	.. Darbhanga ..	26.31	10.11	9.19	26.31	26.31
2	Morwe Reservoir Project ..	.. Monghyr ..	4.90	4.90	4.57	4.90	4.90
3	Udarasthan Irrigation Scheme ..	.. Gaya and Nawada ..	24.89	11.13	10.98	23.89	24.89
4	Anraj Irrigation Scheme ..	.. Palamau ..	5.40	5.40	1.90	5.40	5.40
5	Banki Left Irrigation Scheme ..	.. Palamau ..	5.87	3.34	1.01	5.87	5.87
6	Baro Irrigation Scheme ..	.. Singhbhum ..	10.93	10.93	2.43	10.93	10.93
7	Bijoy Irrigation Scheme ..	.. Singhbhum ..	2.02	2.02	0.85	2.02	2.02
8	Sone Irrigation Scheme ..	.. Singhbhum ..	6.52	3.06	4.06	6.52	6.52
9	Kanchi Irrigation Scheme ..	.. Ranchi ..	18.21	18.21	11.90	18.21	18.21
10	Kokro Irrigation Scheme ..	.. Ranchi ..	3.84	3.84	2.47	3.84	3.84
11	Khudia Irrigation Scheme ..	.. Dhanbad ..	4.73	3.64	0.81	4.73	4.73
12	Musakhand Dam Distribution System ..	.. Rohtas ..	11.74	..	..	11.74	11.74
13	Baksa Dam Scheme ..	.. Hazaribagh ..	3.04	..	..	3.04	3.04
14	Paimar Barrage ..	.. Nalanda ..	8.09	..	..	8.09	4.05
15	Nakti Reservoir ..	.. Monghyr ..	2.83	..	..	2.83	2.83
16	Sundar Reservoir ..	.. Santhal Parganas ..	8.50	..	..	8.50	4.05
17	Uria Danro Reservoir ..	.. Palamau ..	3.64	..	..	..	..
18	Job Reservoir ..	.. Nawada ..	3.24	..	..	..	..
19	Batane Reservoir ..	.. Palamau ..	16.19	..	..	..	..
20	Chinda Reservoir ..	.. Ranchi ..	2.02	..	..	2.02	0.40
21	Tejna Barrage ..	.. Ranchi ..	1.90	..	..	1.90	..
22	Anjanwa Reservoir ..	.. Hazaribagh ..	1.74	..	..	1.74	0.40
23	Gobai Barrage ..	.. Dhanbad ..	4.95	..	..	4.95	..
24	Jinasai Reservoir ..	.. Singhbhum ..	2.02	..	..	2.02	1.21
<b>TOTAL ..</b>			<b>223.99</b>	<b>88.29</b>	<b>54.61</b>	<b>200.92</b>	<b>163.40</b>

V-A.

## FIVE YEAR PLAN.

## MEDIUM IRRIGATION SCHEMES.

('000 Hectares gross.)

Cumulative benefits to end of— <i>contd.</i>											
1969-70 Actual.		1970-71 Actual.		1971-72 Actual.		1972-73 Anticipated.		1973-74 Target.		Fifth Plan Target.	
Potential.	Ultimate.	Potential.	Ultimate.	Potential.	Ultimate.	Potential.	Ultimate.	Potential.	Ultimate.	Potential.	Ultimate.
9	10	11	12	13	14	15	16	17	18	19	20
9.71	6.48	12.14	8.09	20.24	12.14	28.33	20.23	40.47	22.26	40.47	40.47
..	..	..	..	..	..	..	..	..	..	103.60	85.60
..	..	..	..	..	..	..	..	..	..	40.47	30.10
14.97	14.81	18.21	16.39	19.24	17.20	23.88	19.02	26.31	20.24	26.31	26.31
4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90	4.90
15.99	— 2.14	13.21	12.14	19.02	13.95	22.26	14.10	22.87	14.15	24.89	24.89
5.40	3.92	5.40	3.92	5.40	4.05	5.40	0.81	5.40	4.45	5.40	5.40
5.87	2.23	5.87	2.23	5.87	2.43	5.87	2.05	5.87	2.87	5.87	5.87
10.93	6.07	10.93	6.07	10.93	6.48	10.93	4.05	10.93	7.28	10.93	10.93
2.02	1.25	2.02	1.25	2.02	1.25	2.02	0.81	2.02	1.62	2.02	2.02
6.52	5.26	6.52	6.07	6.52	6.27	6.52	4.85	6.52	6.52	6.52	6.52
18.21	14.16	18.21	14.16	18.21	14.97	18.21	10.10	18.21	16.19	18.21	10.21
3.84	3.24	3.84	3.24	3.84	3.44	2.42	3.84	3.64	3.84	3.84	3.84
4.73	2.02	4.73	2.02	4.73	2.23	4.73	0.20	4.73	2.43	4.73	4.73
..	..	2.02	0.40	4.05	2.02	8.09	2.02	11.74	4.05	11.74	11.74
..	..	..	..	..	..	..	..	..	..	3.04	3.04
..	..	..	..	..	..	0.50	0.20	4.86	2.02	8.09	8.09
..	..	..	..	..	..	..	..	..	..	2.83	2.83
..	..	..	..	..	..	..	..	..	..	8.50	8.50
..	..	..	..	..	..	..	..	..	..	3.64	3.64
..	..	..	..	..	..	..	..	..	..	3.24	3.24
..	..	..	..	..	..	..	..	..	..	16.19	16.19
..	..	..	..	..	..	..	..	2.02	0.40	2.02	2.02
..	..	..	..	..	..	..	..	1.90	..	1.90	1.90
..	..	..	..	..	..	..	..	1.74	0.40	1.74	1.74
..	..	..	..	..	..	..	..	..	..	3.95	4.95
..	..	..	..	..	..	..	..	2.02	0.62	2.02	2.02
103.09	46.48	113.00	80.88	124.97	90.33	145.48	84.91	176.35	114.01	368.06	339.59

STATEMENT  
DRAFT FIFTH

Name of the State—Bihar.								SCHEMEWISE BENEFITS FROM MAJOR AND	
Serial no.	Name of Scheme.	District to benefitted and area.	Ultimate Irrigation	Comulative benefits to end of—					
				1968-69.		Fourth Plan Target			
				Potential.	Ultimate.	Potential.	Ultimate.		
1	2	3	4	5	6	7	8		
25	Butenduba Reservoir ..	.. Palamau ..	0.90	..	..	0.90	..		
26	Maila Reservoir ..	.. Palamau ..	8.26	..	..	4.05	..		
27	Ajan (Kukurjhap) Reservoir ..	.. Monghyr ..	3.24	..	..	..	..		
28	Belharna Reservoir ..	.. Bhagalpur ..	1.97	..	..	..	..		
29	Left Banki Reservoir ..	.. Palamau ..	1.20	..	..	..	..		
		TOTAL—(B)	..	239.56	88.29	54.61	205.87	163.40	
		TOTAL—(A+B)	..	..	971.15	237.47	1,088.73	1,046.26	
MAJOR TRIBAL.									
1	Kanahi Reservoir ..	.. Ranchi, Singhbhum ..	24.30	..	..	..	..		
2	Punasi Reservoir ..	.. Santhal Parganas ..	20.30	..	..	..	..		
3	Burhai Reservoir ..	.. Santhal Parganas ..	24.30	..	..	..	..		
4	Dhakwa Reservoir ..	.. Santhal Parganas ..	20.60	..	..	..	..		
5	Bensloi Reservoir ..	.. Santhal Parganas ..	12.10	..	..	..	..		
		TOTAL	..	101.60	..	..	..		
DROUGHT AFFECTED.									
1	Mohane Reservoir ..	.. Gaya, Hazaribagh ..	72.90	..	..	..	..		
2	Tilaya Diversion Scheme ..	.. Nawada, Gaya ..	36.40	..	..	..	..		
3	Bernar Reservoir Scheme ..	.. Monghyr ..	24.30	..	..	..	..		
4	Durgabati Reservoir Scheme ..	.. Rohtas ..	24.30	..	..	..	..		
5	Sakri Reservoir ..	.. Nawada ..	54.40	..	..	..	..		
6	Lilajan Reservoir ..	.. Gaya, Hazaribagh ..	48.90	..	..	..	..		
7	Sakrigali Pumping Scheme ..	.. Santhal Parganas ..	15.40	..	..	..	..		
8	Bateshwarsthan Pumping Scheme ..	.. Bhagalpur ..	20.30	..	..	..	..		
		TOTAL	..	296.90	..	..	..		
MEDIUM TRIBAL.									
1	Chirka Reservoir ..	.. Palamau ..	1.00	..	..	..	..		
2	Suru Reservoir ..	.. Singhbhum ..	5.30	..	..	..	..		
3	Anraj Reservoir ..	.. Palamau ..	1.40	..	..	..	..		
4	Gumani Reservoir ..	.. Santhal Parganas ..	16.20	..	..	..	..		
5	Torai Reservoir ..	.. Santhal Parganas ..	9.70	..	..	..	..		
6	Orni Reservoir ..	.. Bhagalpur ..	8.10	..	..	..	..		

V-A.

## FIVE YEAR PLAN.

MEDIUM IRRIGATION SCHEMES.

('000 Hectares gross.)

Cumulative benefits to end of—*contd.*

1969-70 Actual.		1970-71 Actual.		1971-72 Actual.		1972-73 Anticipated.		1973-74 Targct.		Fifth Plan Target.	
Potential.	Ultimate.	Potential.	Ultimate.	Potential.	Ultimate.	Potential.	Ultimate.	Potential.	Ultimate.	Potential.	Ultimate.
9	10	11	12	13	14	15	16	17	18	19	20
..	..	..	..	..	..	..	..	..	..	0.90	0.90
..	..	..	..	..	..	..	..	..	..	8.26	7.50
..	..	..	..	..	..	..	..	..	..	3.24	3.24
..	..	..	..	..	..	..	..	..	..	1.97	1.97
..	..	..	..	..	..	..	..	..	..	1.20	1.20
103.09	46.48	113.00	80.88	124.97	90.33	145.48	84.91	176.35	114.01	383.63	354.40
985.95	929.34	995.86	963.44	1,007.83	973.19	1,028.34	967.77	1,059.21	996.87	1266.49	1,237.26
..	..	..	..	..	..	..	..	..	..	8.00	4.00
..	..	..	..	..	..	..	..	..	..	12.00	8.00
..	..	..	..	..	..	..	..	..	..	Nil	Nil
..	..	..	..	..	..	..	..	..	..	Nil	Nil
..	..	..	..	..	..	..	..	..	..	6.00	2.00
..	..	..	..	..	..	..	..	..	..	26.00	24.00
..	..	..	..	..	..	..	..	..	..	24.00	18.00
..	..	..	..	..	..	..	..	..	..	12.00	8.00
..	..	..	..	..	..	..	..	..	..	24.30	22.00
..	..	..	..	..	..	..	..	..	..	3.00	1.00
..	..	..	..	..	..	..	..	..	..	Nil	Nil
..	..	..	..	..	..	..	..	..	..	4.00	Nil
..	..	..	..	..	..	..	..	..	..	5.00	4.00
..	..	..	..	..	..	..	..	..	..	20.30	18.00
..	..	..	..	..	..	..	..	..	..	92.60	71.00
..	..	..	..	..	..	..	..	..	..	1.00	1.00
..	..	..	..	..	..	..	..	..	..	5.30	5.00
..	..	..	..	..	..	..	..	..	..	Nil	Nil
..	..	..	..	..	..	..	..	..	..	16.20	15.00
..	..	..	..	..	..	..	..	..	..	9.70	9.00
..	..	..	..	..	..	..	..	..	..	8.10	7.50

1	2	3	4	5	6	7	8
7	Sugathan Reservoir .. ..	Santhal Parganas ..	1.80	..	..	..	..
8	Lotia Reservoir .. ..	Hazaribagh ..	1.30	..	..	..	..
9	Siwane Reservoir .. ..	Hazaribagh ..	1.10	..	..	..	..
10	Golai Reservoir .. ..	Hazaribagh ..	4.80	..	..	..	..
11	Khudia Reservoir .. ..	Dhanbad ..	4.80	..	..	..	..
12	Jharjhara Reservoir .. ..	Singhbhum ..	3.80	..	..	..	..
13	Nakti Reservoir .. ..	Singhbhum ..	1.60	..	..	..	..
14	Purnapani Reservoir .. ..	Singhbhum ..	1.10	..	..	..	..
15	Kaidia Reservoir .. ..	Singhbhum ..	0.40	..	..	..	..
16	Largara Reservoir .. ..	Singhbhum ..	0.40	..	..	..	..
17	Palna Reservoir .. ..	Singhbhum ..	1.60	..	..	..	..
18	Matheli Murgaoan Reservoir .. ..	Giridih ..	0.80	..	..	..	..
19	Hiru Reservoir .. ..	Hazaribagh ..	1.60	..	..	..	..
20	Paras Reservoir .. ..	Ranchi ..	3.10	..	..	..	..
21	Masaria Reservoir .. ..	Ranchi ..	0.60	..	..	..	..
22	Pandarwa Reservoir .. ..	Palamau ..	1.30	..	..	..	..
23	Chirgaon Reservoir .. ..	Ranchi ..	2.70	..	..	..	..
24	Other Medium Scheme .. ..	..	..	..	..	..	..
		TOTAL ..	82.50	..	..	..	..
DEOUGHT AFFECTED.							
1	Upper Kiul Reservoir .. ..	Monghyr ..	20.30	..	..	..	..
2	Sidhwarni Reservoir .. ..	Monghyr ..	7.30	..	..	..	..
3	Bilasi Reservoir .. ..	Bhagalpur ..	3.10	..	..	..	..
4	Corga Pumping Scheme at Chousa .. ..	Bhojpur ..	6.40	..	..	..	..
5	Surajgarha Pumping Scheme .. ..	Monghyr ..	3.60	..	..	..	..
6	Kankai Barrage Scheme .. ..	Purnea ..	8.10	..	..	..	..
7	Dakra Nala Pumping Scheme .. ..	Monghyr ..	8.90	..	..	..	..
8	Amkhar Reservoir .. ..	Gaya ..	1.60	..	..	..	..
9	Punpun Barrage Scheme .. ..	Patna ..	14.50	..	..	..	..
10	Sultanganj Pumping Scheme .. ..	Bhagalpur ..	5.30	..	..	..	..
11	Barari Pumping Scheme .. ..	Bhagalpur ..	8.50	..	..	..	..
12	Other Medium Scheme .. ..	..	..	..	..	..	..
		TOTAL ..	87.60	..	..	..	..
		TOTAL—(C) ..	568.60	..	..	..	..
	TOTAL—(A+B+C) IRRIGATION DEPARTMENT ..	..	..	971.15	937.47	1,088.73	1,046.26
	GRAND TOTAL—R.U.D. AND IRRIGATION DEPARTMENT.	..	..	1,295.44	1,078.72	1,922.58	1,486.24

9	10	11	12	13	14	15	16	17	18	19	20	W
..	..	..	..	..	..	..	..	..	..	1.80	1.80	
..	..	..	..	..	..	..	..	..	..	1.30	1.30	
..	..	..	..	..	..	..	..	..	..	1.10	1.10	
..	..	..	..	..	..	..	..	..	..	4.80	4.80	
..	..	..	..	..	..	..	..	..	..	4.80	4.80	
..	..	..	..	..	..	..	..	..	..	3.80	3.80	
..	..	..	..	..	..	..	..	..	..	1.60	1.60	
..	..	..	..	..	..	..	..	..	..	1.10	1.10	
..	..	..	..	..	..	..	..	..	..	0.40	0.40	
..	..	..	..	..	..	..	..	..	..	0.40	0.40	
..	..	..	..	..	..	..	..	..	..	1.60	1.60	
..	..	..	..	..	..	..	..	..	..	0.80	0.80	
..	..	..	..	..	..	..	..	..	..	1.80	1.80	
..	..	..	..	..	..	..	..	..	..	3.10	3.00	
..	..	..	..	..	..	..	..	..	..	0.60	0.60	
..	..	..	..	..	..	..	..	..	..	1.30	1.30	
..	..	..	..	..	..	..	..	..	..	2.70	2.50	
..	..	..	..	..	..	..	..	..	..	2.00	1.50	
..	..	..	..	..	..	..	..	..	..	75.30	71.70	
..	..	..	..	..	..	..	..	..	..	20.30	18.00	
..	..	..	..	..	..	..	..	..	..	Nil	Nil	
..	..	..	..	..	..	..	..	..	..	3.10	3.00	
..	..	..	..	..	..	..	..	..	..	6.40	6.40	
..	..	..	..	..	..	..	..	..	..	3.60	3.60	
..	..	..	..	..	..	..	..	..	..	Nil	Nil	
..	..	..	..	..	..	..	..	..	..	8.90	8.00	
..	..	..	..	..	..	..	..	..	..	1.60	1.60	
..	..	..	..	..	..	..	..	..	..	4.00	Nil	
..	..	..	..	..	..	..	..	..	..	2.00	1.00	
..	..	..	..	..	..	..	..	..	..	1.00	Nil	
..	..	..	..	..	..	..	..	..	..	2.00	1.50	
..	..	..	..	..	..	..	..	..	..	52.90	43.10	
..	..	..	..	..	..	..	..	..	..	246.80	199.80	
985.95	929.34	995.86	963.74	1,007.83	973.19	1,028.24	967.77	1,059.21	996.87	1,513.29	1,437.06	
1,345.56	1,076.05	1,420.18	1,095.58	1,561.29	1,087.49	1,802.28	1,289.16	2,007.71	1,459.82	3,536.07	3,139.35	





STATEMENT VII  
DRAFT OF FIFTH FIVE-YEAR PLAN  
PROGRESS ON INVESTIGATION OF PROJECTS.

Name of State—Bihar.

Serial no.	Name of scheme under Investigation.	Likely date for completion of Investigation.	Probable date for preparation of Project report.	Rough cost of the preparation of project report.	Annual Irrigation (App. '000 hect.).	District likely to be benefitted.		
1	2	3	4	5	6	7		
<b>A—CONTINUING SCHEMES.</b>								
(i) MAJOR.								
1	Ajoy Barrage at Siktia	..	Project cleared by the T.A.C. of Planning Commission on 3rd May 1966 as the cost has gone up revised estimate have been sent to C.W. & P.C. The Comments of C.W. & P. C. have also been replied.	..	40.47	Santhal Parganas.		
(ii) MEDIUM.								
2	Oriya Darro Reservoir	..	Replies to the comments of C.W. and P. C. under check.	2.04	3.24	Palamau.		
3	Batane Reservoir	..	Replies to the Comments of the C.W. & P.C. under preparation.	5.88	14.32	Palamau.		
4	Govindpur Reservoir	..	Being dropped as its command falls in the command of Subarn rekha High level canal.	..	..	..		
5	Ajan (Kukurjhap) Reservoir	..	Scheme has been put before the Planning Commission for Clearance.	2.11	3.16	Monghyr.		
<b>B—NEW SCHEMES.</b>								
(i) MAJOR.(TRIBAL)								
1	Subarnrekha Project	..	Completed	..	90.00	184.42	Singhbhum.	
2	Konar Irrigation Scheme	..	Ditto	..	11.00	72.23	Hazaribagh.	
3	North Koel Tributary Development Scheme—							
	(a) Amanat	..	30th June 1973	..	30th September 1973	15.00	23.19	Palamau.
	(b) Table	..	30th June 1973	..	31st December 1973	6.00	16.37	Ditto.
	(c) Auranga	..	30th June 1973	..	31st July 1973	19.00	66.57	Ditto.
	(c) Kanhar	..	30th June 1973	..	31st December 1973	51.00	163.60	Ditto.
4	Kanchi Reservoir	..	September 1973	..	December 1973	10.80	24.3	Ranchi and Singhbhum.
5	Punasi Reservoir	..	Sent to C.W. and P.C.	..	..	15.52	20.3	Santhal Parganas.
6	Burhai Reservoir	..	March 1974	..	July 1974	7.89	24.3	Ditto.
7	Dhakwa Reservoir	..	July 1974	..	October 1974	9.00	20.6	Ditto.
8	Bansloi Reservoir	..	January 1974	..	April 1974	7.50	12.1	Ditto.
<b>DROUGH AFFECTED.</b>								
1	Mohana Reservoir	..	September 1973	..	December 1973	18.00	72.9	Gaya and Hazaribagh.
2	Tilaiya Diversion Scheme	..	September 1973	..	November 1973	19.30	36.4	Gaya and Nawada.
3	Barna Reservoir Scheme	..	Replies to the comments under discussion with C.W. & P.C	..	..	11.82	24.3	Monghyr.
4	Durgawati Reservoir	..	August 1973	..	December 1973	12.70	24.3	Rohtas.
6	Lilajan Reservoir	..	December 1973	..	March 1974	13.68	48.9	Gaya and Hazaribagh.
7	Sakrigali Pumping Scheme	..	September 1973	..	December 1973	8.66	15.4	Santhal Parganas.
8	Bateshwarsthan Pumping Scheme	..	September 1973	..	December 1973	11.25	20.3	Bhagalpur.

STATEMENT VII  
DRAFT OF FIFTH FIVE-YEAR PLAN  
PROGRESS ON INVESTIGATION OF PROJECTS

Name of State—Bihar

Serial no	Name of scheme under Investigation	Likely date for completion of Investigation	Probable date for preparation of Project report	Rough cost of the preparation of project report	Annual Irrigation (App. '000 hect )	District likely to be benefitted
1	2	3	4	5	6	7
(ii) MEDIUM. (Tribal Area.)						
1	Chirka Reservoir ..	..	Replies to comments under preparation	0.60	1.00	Palamau.
2	Suru Reservoir ..	..	September 1973 ..	December 1973 ..	0.99	Singhbhum.
3	Anraj Reservoir ..	..	September 1973 ..	December 1973 ..	1.95	Palamau.
4	Gumani Reservoir ..	..	Sent to C. W. and P. C. ..	..	4.08	Santhal Parganas. Ditto.
5	Torai Reservoir ..	..	Ditto	Ditto ..	4.44	9.72
6	Orni Reservoir ..	..	Under preparation ..	..	2.25	8.1 Bhagalpur.
7	Sugathan Reservoir ..	..	July 1973 ..	September 1973	1.50	1.8 Santhal Parganas.
8	Lotia Reservoir ..	..	Replies to comments under preparation	0.50	1.3	Hazaribagh.
9	Siwane Reservoir ..	..	Submitted to D.C.E. ..	..	0.76	1.1 Ditto.
10	Golai Reservoir ..	..	Submitted to C. E. I. ..	..	0.63	4.8 Ditto.
11	Khudia Reservoir ..	..	Replies to comments under preparation	1.69	4.8	Dhanbad.
12	Jhar Jhara Reservoir ..	..	September 1973 ..	December 1973 ..	1.27	3.8 Singhbhum.
13	Makti Reservoir ..	..	September 1973 ..	December 1973 ..	1.20	1.6 Ditto.
14	Purana Pani Reservoir ..	..	Completed ..	September 1973	0.45	1.1 Ditto.
15	Kaidia Reservoir ..	..	Ditto ..	September 1973	0.90	0.4 Ditto.
16	Largara Reservoir ..	..	Ditto ..	September 1973	0.48	0.4 Ditto.
17	Palna Reservoir ..	..	September 1973 ..	December 1973	1.20	1.6 Ditto.
18	Hathli Murgaon Reservoir ..	..	Completed ..	September 1973	0.48	0.8 Giridih.
19	Niru Reservoir ..	..	Ditto ..	September 1973	1.20	1.8 Ha zaribagh.
20	Paras Reservoir ..	..	Ditto ..	September 1973	1.21	3.1 Ranchi.
21	Pandariva Reservoir ..	..	March 1974 ..	June 1974 ..	0.45	1.3 Palamau
22	Chirgaon Reservoir ..	..	Replies to comments under preparation	2.31	2.7	Ranchi
DROUGHT AFFECTED						
1	Upper Kiul Reservoir ..	..	September 1973 ..	November 1973	7.39	20.3 Monghyr
2	Sidhwarni Reservoir ..	..	December 1973 ..	March 1974 ..	3.21	7.3 Monghyr
3	Bilasi Reservoir ..	..	Completed ..	June 1973 ..	0.75	3.1 Bhagalpur
4	Ganga pumping Scheme at Chousa	..	Replies to the comments of C W & P C under preparation	0.75	6.4	Bhojpur
5	Surajgarha Pumping Scheme ..	..	August 1973 ..	October 1973 ..	2.02	3.6 Monghyr
6	Kankai Barrage Scheme ..	..	April 1974 ..	July 1974 ..	4.50	8.1 Purnea
7	Dakra Nal Pumping Scheme ..	..	September 1973 ..	December 1973 ..	5.02	8.9 Monghyr
8	Amkhar Reservoir ..	..	Completed ..	June 1973 ..	1.12	1.6 Gaya
9	Punpun Barrage Scheme ..	..	September 1973 ..	December 1973 ..	3.00	14.5 Patna
10	Sultanganj Pumping Scheme ..	..	September 1973 ..	December 1973 ..	2.92	5.3 Bhagalpur
11	Barari Pumping Scheme ..	..	September 1973 ..	December 1973	4.68	8.5 Ditto

## STATEMENT VIII

## PRESENT ORGANISATION AND OUTLAYS FOR INVESTIGATION AND RESEARCH

Serial no	Item	Over all Water Resources Planning	Investigations and preparation of individual Schemes	Research
1	Organisational set up (attach organisation chart)	.. ..	Vide attached	.. ..
2	Number of persons engaged—			
	(i) Engineering graduates	.. ..	487	5
	(ii) Engineering diploma holders	.. ..	810	4
	(iii) Scientists	.. ..	..	64
	(iv) Ministerial Staff	.. ..	206	87
	(v) Skilled personnel	.. ..	280	19
	(vi) Unskilled personnel	.. ..	3,408	39
	(vii) Others	.. ..	483	131
3	Present Annual expenditure (Rs Lakhs)—	.. ..	54.44 lakhs	10.50 lakhs
	(i) Within State Plan	.. ..		
	(ii) From other Sources—			
	(a) Central assistance for investigations in the context of providing employment for Engineers and other technical personnel	.. ..	125.29 (including Survey Investigation works)	
	(b) Special Employment Programme etc	.. ..	60 00	



## CHAPTER XV

### POWER

1. The per capita investment on power in Bihar as in March, 1969 has been only Rs. 29 when the comparable figures for some other States like, Punjab, Haryana, Tamilnadu and Maharastra are Rs. 91 Rs. 93, Rs. 70 and Rs. 61 respectively. The per-capita investment at the end of the Fourth Plan is expected to be Rs. 180 in the Punjab and Rs. 156 in Haryana, against only Rs. 65 (including the investment by the D.V.C.) in Bihar.

2. Comparing position in 1971-72 for the different States in the Country, per-capita consumption was the highest in Maharastra (171 units), with the Punjab in the second position (168 units), other States, where per-capita consumption was above 100 units, were Gujarat (143), Tamilnadu (132), West Bengal (119), Mysore (117) and Haryana (114). The per-capita consumption of power for the whole of the State of Bihar is only 67 KWH as against an all India average of 94 KWH. The per-capita consumption of electricity for North Bihar is 10.01 KWH, for South Bihar 41.55 KWH, and for the Chotanagpur region it is 201.90 KWH as per provisional figures for 1971-72. In Chotanagpur the per capita figure is high because of the Iron and Steel, Coal mining Industries, etc. Actually, however, rural electrification is very low in this region. The large variation in per capita consumption between North Bihar, South Bihar, Chotanagpur regions stems, primarily from the fact that there are significant differences among them in the level and pattern of industrial development. It is, no doubt, also due to uneven investment in the Power sector in the different regions of this State.

3. Scheduled Castes and Scheduled Tribes taken together constitute 22.86 per cent of the State's population which is more than the all-India average of 21.5 per cent only. Besides there is also a very sizeable population of other socially and economically backward communities who need special attention. With a view to improve the lot of the Scheduled castes, Scheduled Tribes, Backward Communities and the dwellers of the backward districts of North Bihar, a provision of Rs. 45 Crores has been made under the 'Minimum needs Programme' over and above the regular scheme of Rural Electrification for which Rs. 130 Crores, including Rs. 80 crores from Institutional sources has been proposed in the Fifth Five-Year Plan.

#### **The Fourth Plan Experience :**

4. The Fourth Five-Year Plan provided an outlay of Rs. 150 Crores for the Power Programme. Besides Rs. 30 crores were expected from Institutional Sources. It is expected that out of Rs. 180 crores a programme of only about Rs. 158 crores (including 22 crores from Institutional sources) would be executed. This anticipated shortfall of Rs. 22 crores (180—158) in the investment is namely due to non-availability of funds. The programme of rural electrification had suffered in the past, apart from other reasons for want of proper executing machinery and keeping this in view, the Bihar State Electricity Board has created a Rural Electrification Directorate for effective, smooth and efficient execution of the rural electrification programme.

Similarly, the Board has created a 'Generation Cadre' on an experimental basis with added incentive to the incumbents for the sake of timely construction, operation and maintenance of the Power Stations.

5. While formulating the Fifth Plan Proposal early completion of the continuing generation projects and the simultaneous utilization of the potentials thereby created has been ensured by providing matching transmission and distribution lines for giving proper and timely outlet to the energy generated. The proposals have been treated as a co-heretn work as they are inter-related and an integrated development has been arrived at. The new generation projects have been envisaged for keeping pace with the load growth as far as possible and the consequent transmission and distribution lines have been accommodated in the proposals formulated. A wide gap, however, will remain in the load demand and the generation potential on account of resource limitations.

6. An outlay of Rs. 435 crores has been proposed for the Power Sector in the Fifth Plan inclusive of Rs. 45.00 Crores under the 'Minimum Needs programme'. The Electricity Board proposes to obtain Rs. 120.00 crores by Institutional Financing and thus the tentative Fifth Plan proposals aggregate to Rs. 5,55.00 crores, which are proposed to be financed as below :—

		Resources (In Rs. crores.)
<b>A. Within State Plan Ceiling</b>		
(i) Internal Resources of the Board	...	80.50
(ii) Market Borrowings	... ..	75.50
(iii) Loan from L.I.C.	... ..	25.00
(iv) Loan from State Government	... ..	2,54.00
SUB-TOTAL—(A)	...	4,35.00
<b>B. Outside State Plan Ceiling—</b>		
From A.F.C., R.E.C. etc.	...	1,20.00
TOTAL (A+B)		555.00

7. A sum of Rs. 30.00 crores was envisaged to be mobilised from Institutional Sources during the Fourth Plan period. But it is now anticipated that only Rs. 22.00 crores would actually be available by the end of the Fourth Plan. However, "the Committee of Members of Parliament on Rural Electrification" has recommended in its report that in future the R.E.C. should give greater emphasis to sanctioning of new schemes in backward States and backward areas. They have also recommended that R.E.C. should finance high tension transmission lines in rural areas in respect of backward States. The report further underlines that such emphasis should continue till the backward States reach the all-India average of rural electrification. It is expected that the recommendations of this Committee of Parliament will be faithfully implemented and accordingly a provision of Rs. 1,20 crores from Institutional finances, for the Fifth Plan period, is being made. Out of this, Rs. 20 crores for transmission lines, another Rs. 20 crores for distribution lines and the remaining Rs. 80 crores is for rural electrification and agricultural pump connections.

8. Power supply position will improve with the improvement in performance of Patratu Thermal Power Station and Barauni Thermal Power Station and as soon as the repair and maintenance of damaged units are completed and additional units are put into operation. In addition, power for peak or emergency assistance will be available from 40 MW diesel generating units proposed to be installed within the next two years. Stability of power supply will also improve when power to the extent of 100 MW will become available from Balimela (Orissa) Hydro Electric Power Station to Bihar. Further, power to the extent of 10 MW will be available from Gandak Power Station (which will be surplus to the needs of Nepal) and 5 MW from Kosi Hydro Electric Power Station.

9. Against the present installed capacity of 560 M.W. at the end of the Fourth Five Year Plan, the installed capacity in Bihar is expected to rise to 1,505 M.W., with which a system demand of 1,000 M.W. only can be met. Estimated load then will be of the order of 1,500 M.W. Thus, there will be a shortfall of about 500 M.W. of power. It is hoped that along with the power which may be available from Orissa system, as also, from Nepal, it will be possible to bridge the gap substantially, provided the works are executed strictly according to the targets and finance and materials are made available in time.

10. North Bihar and South Bihar will be inter-connected by two independent transmission lines at 400 K.V. and 200 K.V. respectively, with which it will be possible to transfer another 200 M.W. of power from South Bihar to North Bihar, thus making a total transfer of 300 M.W. power from South to North. When the Muzaffarpur Power Station is sanctioned, 110 M.W. of power will also be available from Muzaffarpur Power Station.

Bihar will be inter-connected to the adjoining power system of D.V.C. West Bengal, U.P. and Orissa with 220 K.V. inter-state transmission lines. This will enable exchange of surplus power from neighbouring system and improve the stability of power supply in Bihar. 132 K.V. lines will be extended and a 132/33 K.V. Grid Sub-stations of 20 M.V.A. capacity will be provided in each, Subdivision. By the end of the Fifth Five Year Plan, 33/11 K.V. lines will also be extended and a substation of 3 to 5 M.V.A. capacity will be provided in each Block.

11. Bihar has 67,665 villages. Only 11,000 villages and 1,00,000 pump connections are expected to be electrified by the end of the Fourth Plan period. Another 20,000 villages and 3,00,000 pump connections are expected to be electrified during the Fifth Plan period.

12. The State Electricity Board is presently generating about 200 M.W. at Patratu and 75 M.W. at Barauni to meet the demand of the area served by Bihar State Electricity Board's own generation and is also giving assistance to the neighbouring system during off-peak hours. The present position is as follows :—

All figures in million units per day.

- (1) Total energy required per day—6.00
- (2) Availability from own generation—6.25
- (3) Import from neighbouring States—Nil.
- (4) Export to U.P.S.E.B.—0.25
- (5) Power required to meet the demand—270/280 M.W.

The Bihar State Electricity Board has taken over an additional load of 40 M.V.A. on its own system, in order to extend special assistance to D.V.C. as per directive of Government of India, to enable D.V.C. to meet the full requirement of steel plant. This 40 M.V.A. load of Kendposi, Rajkharsawan, Goilkeria and Noamundi, which was D.V.C. load, has been taken over by Bihar State Electricity Board since 14th June, 1973.

Energy generated in 1971-72 was 1,442 million Unit and energy generated in 1972-73 was 1,951 Million Unit.

13. Patratu needs 1 25,000 tons and Barauni needs 40,000 tons of coal every month for stepping up generation up to 250 M.W. and 90 M.W. levels respectively. Similarly Patratu needs 5,000 K.L. of L.D.O. and Bzarauni needs 12,000 K.L. of LSHS oil per month simultaneously. Government of India and Planning Commission are fully in the know of those requirements and are assisting the Electricity Board.

14. With the increased agricultural activities and accentuated programme for installation of about 20,000 electric pumping sets and 500 State tube-wells per year, over and above this, the existence of unauthorised pump installations, is likely to create a diversified power demand of about 100 M.W. The present registered normal annual growth of electric consumption in Bihar has been about 15 per cent. This will increase to about 20 per cent to 30 per cent if reliable continuous supply can be given to the consumers. Therefore, in three years the above demand of 100 M.W. will create demand of nearly 400 M.W. at the generating station. This only reflects the gravity of power shortage which is likely to occur in the years 1974-75.

15. Uninterrupted supply of power is very essential for the increased agricultural production. Action has to be taken to ensure that no shortage of power or break-downs in transmission and distribution occur to interfere with the irrigation efforts.

In view of the above, it is considered desirable that additional generating capacity be created by installing diesel generating sets at suitable location in North Bihar and South Bihar. Diesel generating sets are capable of being procured and installed in the shortest

possible time. No doubt, cost of generation from these sets is higher than that from Thermal sets; but apart from being capable of quick installation, diesel generating sets will require lesser capital outlay and this is a definite advantage. There is another advantage that the diesel generating sets would be handy for peak assistance to the existing power grid in the State.

16. The commissioning schedule of the generating plants for the sanctioned schemes depending upon adequate and timely availability of funds, is as below :—

December, 1975	i. 7th unit at Patratu—110 M.W.
June, 1976	ii. 1st unit at Subernrekha—65 M.W.
June, 1976	i. 8th unit at Patratu—110 M.W.
December, 1976	ii. 2nd unit at Subernrekha—65 M.W.
March, 1977	i. 6th unit at Barauni—110 M.W.

17. The present installed generating capacity under the Bihar State Electricity Board is 545 M.W.—400 M.W. at Patratu and 145 M.W. at Barauni. The present operational availability of generating plants in the country is only about 40 per cent of the installed capacity, on the average. Assuming a higher standard of operation and maintenance for which we are striving, operational availability is not likely to be more than 60 per cent. Even then, with the available total installed capacity of 560 M.W. Bihar State Electricity Board can be expected to meet a peak load of only about 325 M.W. However, the system peak-load is already approaching 300 M.W. and a peak-load of 325 M.W. could be reached during the current summer season itself. With a massive programme of lift irrigation in progress in the State the rate of growth of load is likely to be very fast.

18. Brief description of the generating stations is given below :—

(a) *Patratu Thermal Power Station Extension.*— $2 \times 110$  M.W. This extension envisages installation of two units of 110 M.W. each, to be supplied by M/s. Bharat Heavy Electricals Ltd. The target for commissioning of 1st unit has been fixed in December, 1975 and the 2nd unit in June, 1976. All the civil works are ready. Erection on turnkey basis has been given to a Government of India undertaking. Equipments are also available for speedy erection. If the Government of India asks for quick erection and gives the assistance in the matter of finance and supply of steel, it may be possible to commission these units earlier.

The main bottleneck in speedy execution of the project is the meagre resources of the Board. Non-availability of steel is seriously hampering progress.

(b) *Barauni Thermal Power Station Extension.*— $2 \times 110$  M.W. Installation of only one 110 M.W. unit has been cleared by Advisory Committee of the Ministry of Irrigation and Power. The Board has requested Planning Commission for technical clearance and Financial Sanction for the second one.

(c) *Muzaffarpur Thermal Power Station.*— $2 \times 110$  M.W. The project report for the installation of two 110 M.W. unit has been cleared by C.W. and P.C. vide letter no. 2/305/11/72, dated 17th July, 1972. The clearance of Planning Commission is still awaited.

1st unit is expected to be commissioned in March, 1979 and the 2nd unit in October, 1979. These targets are based on the availability of funds, steel and extension of broadgauge railway line from Samastipur to Muzaffarpur.

(d) *Tenughat Thermal Power Station.*—First stage of construction conceives an installed capacity of 1,300 M.W. which will be augmented by an additional 1,500 M.W. in the second stage. The Government of Bihar has proposed vide letter no. 562, dated the 15th February, 1972 to include this project in the Central Sector. Chief Minister, Bihar has also written to Dr. K.L. Rao, Irrigation and Power Minister, vide D.O. No. 61, dated the 10th June, 1972. Clearance of Ministry of Irrigation and Power is awaited.



- (e) *Subernrekha Hydel Power Station.*— $2 \times 65$  M.W. The Project is under construction and has one unit of 65 M.W. each to be installed in two different power stations. The units are being supplied by M/s Bharat Heavy Electricals Ltd. The Power House I is expected to be completed by June, 1976 and II, power house by December, 1976. The Civil Construction work has been given to M/s. N.P.C.C. If they accelerate their progress and if M/s B.H.E.L. deliver the equipments as per their original Schedule, then only it would be possible to complete the work as per above target dates.
- (f) *Koelkaro Hydel Power Station.*— $6 \times 120$  M.W. Investigation has been completed. Project report has been prepared by C.W. and P.C. and found to be technically feasible. The sanction and clearance of the Government of India are awaited. Government of Bihar has proposed *vide* letter no. 562, dated the 15th February, 1972 to include this project in the Central Sector.

**POWER.**  
**POWER PLAN—ABSTRACT.**

State/Centre/U.T.S.	Outlay. (Rs. in Crores)					Phasing.				Spill over if any, into Fifth Plan.
	Total cost.	Expenditure by the end of 1973-74.	Spillover outlay	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	Total 1974-79.	
1	2	3	4	5	6	7	8	9	10	11
<b>I. GENERATION—</b>										
<b>(a) Continuing Schemes/Approved by Planning Commission—</b>										
(1) Kosi Hydrel Power Station (4×5 M.W.) ..	6.17	6.07	0.096	0.096	..	..	..	..	0.096	..
(2) Subarnrekha Hydrel Project (2×65 M.W.) ..	17.00	9.14	7.86	5.00	2.00	0.86	..	..	7.86	..
(3) Patratu Thermal Power Station Extension (2×110 M.W.).	45.00	37.11	7.89	4.00	3.00	0.89	..	..	7.89	..
(4) Barauni Thermal Power Station Extension (1×110 M.W.)	20.00	5.34	14.66	7.00	7.00	0.66	..	..	14.66	..
<b>(a) SUB-TOTAL— ..</b>	<b>88.17</b>	<b>57.66</b>	<b>30.50</b>	<b>16.096</b>	<b>12.00</b>	<b>2.41</b>	<b>..</b>	<b>..</b>	<b>30.50</b>	<b>..</b>
<b>(b) New Schemes proposed—</b>										
(1) Muzaffarpur Thermal Power Station (2×110 M.W.).	46.00	..	..	7.00	9.00	24.00	4.00	2.00	46.00	..
(2) Patratu Thermal Power Station Extension (2×110 M.W.)	42.70	..	..	7.00	10.00	10.00	10.00	5.70	42.70	..
(3) Barauni Thermal Power Station Extension (1×110 M.W.)	21.00	..	..	3.50	4.50	5.00	4.00	4.00	21.00	..
(4) Koel-Karo Hydrel Project (6×120 M.W.) ..	120.00	..	..	5.00	7.00	8.00	8.00	8.00	36.00	84.00
(5) Gas/Diesel Power Station (2×20 M.W.) ..	8.00	..	..	6.00	2.00	..	..	..	8.00	..
<b>(b) TOTAL— ..</b>	<b>237.70</b>	<b>..</b>	<b>..</b>	<b>28.50</b>	<b>32.50</b>	<b>47.00</b>	<b>26.00</b>	<b>19.70</b>	<b>153.70</b>	<b>..</b>
<b>* TOTAL—GENERATION (a+b) ..</b>	<b>3,25.87</b>	<b>57.66</b>	<b>30.50</b>	<b>44.596</b>	<b>44.50</b>	<b>49.41</b>	<b>26.00</b>	<b>19.70</b>	<b>184.206</b>	<b>84.00</b>

II. TRANSMISSION AND DISTRIBUTION—

(a) Transmission—

(i) Continuing Schemes	..	..	..	30.00 (4th Plan)	24.84	5.16	4.00	1.16	..	..	..	5.15	..
(ii) New Schemes	..	..	..	75.00 +20.00*	..	..	11.00 +4.00*	13.00 +4.00*	15.00 +4.00*	18.00 +4.00*	18.00 +4.00*	75.00 +20.00*	..
(b) Distribution Schemes	..	..	..	55.00 +20.00	..	..	10.00 +4.00*	10.00 +4.00*	11.00 +4.00*	12.00 +4.00*	12.00 +4.00*	55.00 +20.00*	..
(c) Acquisition of Licensees	..	..	..	10.00	..	..	5.00	2.00	2.00	1.00	..	10.00	..
III. RURAL ELECTRIFICATION	..	..	..	50.00 +80.00*	..	..	9.75 +16.00*	9.75 +16.00*	10.25 +16.00*	10.25 +16.00*	10.00 +16.00*	50.00 +80.00*	..
IV. INVESTIGATION	..	..	..	6.00	..	..	1.00	1.00	1.00	1.00	1.00	5.00	..
V. SPECIAL EMPLOYMENT SCHEME	..	..	..	6.00	..	..	1.10	1.15	1.20	1.25	1.30	6.00	..
GRAND TOTAL—(I TO V)	..	..	..	5,56.87 +1,20.00	82.50	35.66	86.446 +24.00	82.56 +24.00	89.86 +24.00	69.50 +24.00	62.00 +24.00	390,366 120.00	84.00
MINIMUM NEED PROGRAMME	..	..	..	88.66	..	..	5.00	10.00	10.00	10.00	10.00	45.00	43.66
GRAND TOTAL	..	..	..	6,45.53 +1,20.00	82.50	35.66	91.446 +24.00*	92.56 +24.00*	99.86 +24.00*	79.50 +24.00*	72.00 +24.00*	4,35,366 1,20.00*	1,27.66
GRAND TOTAL	..	..	..	7,65.53	82.50	35.66	11,54.46	1,16.56	1,23.86	1,03.50	96.00	555,366	1,27.66

\* Form A.F.C., R.E.C. and Commercial Bank etc.

STATE  
STATUS OF EACH PROJECT  
PROFORMA FOR SUBMISSION OF INFORMATION ON POWER

*Generation*

(The following information is

Schemes approved for implementation.

Financial Outlays

State/Centre/U.T. and Name of the Scheme (schemewise).	Total estimated cost.		Anticipated expenditure up to and of Fourth Plan.	Spill over Requirement.		
	Approved.	Latest.		Total.	Capital.	Foreign Exchange requirements of the project authorities.
1	2	3	4	5	6	7
1. Kosi Hydel Power Station (4×5MW.) ..	6.17	6.17	6.07	0.09	0.096	0.025
2. Subernrekha Hydel Power Station (2×65 MW).	17.00	17.00	9.14	7.86	7.86	0.043
3. Patratu Thermal Power Station Extension (2×110 MW) 7th & 8th Units.	45.00	45.00	37.11	7.89	7.89	..
4. Barauni Thermal Power Extension (1×110 MW) 6th units.	20.00	20.00	5.34	14.66	14.66	0.063
5. Muzaffarpur Thermal Power Station (2× 110 MW).	46.00	46.00	..	..	..	..
6. Patratu Thermal Power Station Extension (2×110 MW) 9 an 10th units.	42.7	42.70	..	..	..	..
7. Barauni Thermal Power Station Extension (1×110 MW) 7th unit.	21.00	21.00	..	..	..	..
8. Koel-Karo Hydel Project (6×120 MW) ..	1,20.00	120.00	..	..	..	..
9. Gas/Diesel Power Station (2×20 MW) ..	8.00	8.00	..	..	..	..
<b>TOTAL</b> ..	<b>3,25.87</b>	<b>3,25.87</b>	<b>57.66</b>	<b>30.50</b>	<b>30.50</b>	<b>0.128</b>

## MENT I

## FINANCIAL AND PHYSICAL

## PROGRAMME BY THE STATES/CENTRE/U.T.S. IN THE FIFTH PLAN PERIOD

## Projects.

Furnished for each project),

(Rs. in Crores.)

1972-73 Actuals.	1973-74 Anticipated.	Annual Phasing of the spillover outlay in Fifth Plan.					Spillover if any into VI Plan.
		1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	
8	9	10	11	12	13	14	15
0.20	0.20	0.096	..	..	..	..	..
2.68	5.00	5.00	2.00	0.86	..	..	..
11.86	12.00	4.00	3.00	0.89	..	..	..
0.34	4.00	7.00	7.00	0.66	..	..	..
..	..	7.00	9.00	24.00	4.00	2.00	..
..	..	7.00	10.00	10.00	10.00	5.70	..
..	..	3.50	4.50	5.00	4.00	4.00	..
..	..	5.00	7.00	8.00	8.00	8.00	84.00
..	..	6.00	2.00	..	..	..	..
15.08	21.20	44.596	44.50	49.41	26.00	19.70	84.00

STATE  
STATUS OF EACH PROJECT

PROFORMA FOR SUBMISSION OF INFORMATION OF POWER

Generation

(The following information is

Physical targets.

Schemes approved for implementation.

Name of the Scheme.	Delivery and completion date of plant and equipment contracted and source of supply.		Benefits.	Total.	Anticipated by the end of the Fourth Plan.	
					As per target in the Fourth Plan.	As now envisaged.
1	2		3	4	5	6
1. Kosi Hydel Power Station.*	M/s. HITACHI JAPAN	All equipments received by 1966 end.	(a) Installed Capacity (MW) (b) Energy generated (million unit).	20 22 Yr.	20 82	15 37
2. Subernrekha Project.	M/s. B. H. E. L.	Hardwar, Delivery of Embedded parts completed in 1972, other parts to be received by December 1974 or March, 1975.	(a) Installed Capacity (MW) (b) Energy generated (million unit).	130 160/Yr.	.. ..	.. ..
3. Patratu Thermal Power Station (7th and 8th unit).	M/s. BHEL	Hyderabad and Tiruchirapath, March, 1974.	(a) Installed capacity (MW) (b) Energy generated (million unit).	220 770/Yr.	220 ..	.. ..
4. Barauni Thermal Power Station Extension 6th unit.	M/s. BHEL,	Letter of intent placed in September 1970 advance payment made in March, 1971 Delivery date not committed.	(a) Installed capacity (MW) (b) Energy generated (million unit).	110 385/Yr.	.. ..	.. ..
5. Muzaffarpur Thermal Power Station.	Approved and pumping commission not received.		(a) Installed capacity (MW) (b) Energy generated (million unit).	220 770/Yr	.. ..	.. ..
6. Patratu Thermal Power Station Extension 9th and 10th unit.	Ditto	ditt ..	(a) Installed capacity (MW) (b) Energy generated (million units).	220 770/Yr.	.. ..	.. ..
7. Barauni Thermal Power Station Extension 7th unit	Approval of Planning Commission not yet received.		(a) Installed capacity (MW) (b) Energy generated (million units).	110 385/Yr.	.. ..	.. ..
8. Koel-Karo Project.	Hydel	Ditto ditto ..	(a) Installed capacity (MW) (b) Energy generated (million unit).	720 824/Yr.	.. ..	.. ..
9. Gas/Diesel Station.	Power	Ditto ditto ..	(a) Installed generated (MW) (b) Energy generated (million units).	40 70/Yr.	.. ..	.. ..

## MENT II.

## FINANCIAL AND PHYSICAL.

## PROGRAMME BY THE STATES/CENTRES/U.Ts. IN THE FIFTH PLAN PERIOD.

*Projects.*

furnished for each project).

Spillover benefits into Fifth Plan.	Annual Phasing of achievement in Fifth Plan.						Spillover if any into the Sixth Plan.
	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	Total 1974-79.	
7	8	9	10	11	12	13	14
5 23.8	5 1.4	.. 5.6	.. 5.6	.. 5.6	.. 5.6	5 23.8	.. 22/Yr.
130 400	.. ..	65 ..	65 80	.. 160	.. 160	130 400	.. 160/Yr.
220 1925	.. ..	110 ..	110 385	.. 770	.. 770	220 1925	.. 770/Yr.
110 481	.. ..	.. ..	.. ..	110 96	.. 385	110 481	.. 385/Yr.
.. ..	.. ..	.. ..	.. ..	.. ..	110 ..	110 ..	110 770/Yr.
.. ..	.. ..	.. ..	.. ..	.. ..	220 90	220 96	.. 770/Yr.
.. ..	.. ..	.. ..	.. ..	.. ..	110 ..	110 ..	.. 385/Yr.
.. ..	.. ..	.. ..	.. ..	.. ..	120 ..	120 ..	720 824/Yr.
227	..	40 17	.. 70	.. 70	.. 70	40 227	.. 70/Yr.

\* Due to heavy siltation and breach in the canal, Electricity during Fourth or Fifth Plan may not be generated at all inspite of commissioning.

## STATEMENT III.

## STATUS OF EACH PROJECT FINANCIAL AND PHYSICAL.

PROFORMA FOR SUBMISSION OF INFORMATION ON POWER PROGRAMME BY THE STATES/CENTRE/U.T.S. IN THE FIFTH PLAN PERIOD.

*Generation Project.*

Annual Requirement of Key Materials and Foreign Exchange to achieve the above target.

Key Materials.	Unit.	Total requirement of the project.	Received up to the end of 1973-74.	Requirement during 1974-79.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8	9	10
<b>BARAUNI THERMAL POWER STATION EXTENSION (1×110 MW) 7TH UNIT POWER.</b>									
Cement	M. T.	7,000	..	7,000	..	..	3,500	2,500	1,000
Steel	M. T.	7,532	..	7,532	..	..	2,500	3,500	1,532
Earth moving equipment.	Numbers	Dumper 4 Dozer 1 Scraper 2 Pusher 1	Work to be managed by existing ones.	Nil	..	..	..	..	..
Electrodes	Numbers	6,80,000	Nil	6,80,000	..	..	2,00,000	3,00,000	1,80,000
Gases	Cubic meter	Acetylene— 27,500	Nil	27,500	..	..	10,000	15,000	2,500
		Oxygen— 60,000	Nil	60,000	..	..	22,000	32,000	6,000
Coal for Thermal Stations.	M. T.	3.29 × 105 per year.	Nil	Nil	..	..	..	..	..
Foreign Exchange in Rs. Lakhs.	Rs. in lakhs	6.00	Nil	6.00	3.00	3.00	..	..	..

NOTE.—Particularly for those Schemes which are in preliminary Stages of construction the project authorities are requested to furnish Master Control Network (PERT/CPM) to correspond to above annual phasing of benefits and expenditure.



## STATEMENT III.

## STATUS OF EACH PROJECT—FINANCIAL AND PHYSICAL

Proforma for submission of information on power programme by the States/Centre/U.Ts. in the Fifth Plan period.

## GENERATION PROJECTS.

Annual requirement of Key Materials and Foreign Exchange to achieve the above target.

Key Materials.	Unit.	Total requirement of the project.	Received upto the end of 1973-74.	Requirement during 1974-79.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8	9	10
<b>KOSI HYDEL POWER STATION (4×4.8M.W.)</b>									
Cement	.. M.T.	Work completed.	..	..	..	..	..	..	..
Steel	.. M.T.	Work completed.	..	..	..	..	..	..	..
Earth moving equipment.	Nos.	Work completed by existing earth movers.	..	..	..	..	..	..	..
Electrodes	.. Nos.	1,00,000	20,000	80,000	80,000	..	..	..	..
Gases	.. Cubic metre	Oxygen 10,000 Acetylene 5,000	3,000	7,000	3,000	4,000	..	..	..
Coal for Thermal Station.	M.T.	Nil	..	..	..	..	..	..	..
Foreign Exchange	Rs. (lakhs)	5.50	3.00	2.5	2.5	..	..	..	..
<b>SUBERNREKHA HYDEL PROJECT (2×65 M.W.)</b>									
Cement	.. Tons	70,000	40,000	30,000	30,000	..	..	..	..
Steel	.. Tons	53,000	43,000	10,000	10,000	..	..	..	..
Earthmoving equipment.	Nos.	Scraper 3 Dozer 3 Excavator 2 Dragine 1 Dumper 2 Sheep foot Roller 5	Work to be managed by existing ones.	Nil	..	..	..	..	..
Electrodes	.. Nos.	5,00,000	50,000	4,50,000	2,50,000	2,00,000	..	..	..
Gases	.. Cubic metre	Oxygen 60,000 Acetylene 28,000	..	60,000	50,000	10,000	..	..	..
Coal for Thermal Stations.	M.T.	Nil	..	..	..	..	..	..	..
Foreign Exchange	Rs. (lakhs)	6.00	1.70	4.30	4.30	..	..	..	..

Note.—Particularly for those schemes which are in preliminary stages of construction the project authorities are requested to furnish Master Control Net Work (PERT/CPM) to correspond to above annual phasing of benefits and expenditure.

## STATEMENT III.

## STATUS OF EACH PROJECT—FINANCIAL AND PHYSICAL

Proforma for submission of Information on power programme by the States/Centre/U.Ts. in the Fifth Plan period.

## GENERATION PROJECTS.

Annual requirement of Key Materials and Foreign Exchange to achieve the above target.

Key Materials.	Unit.	Total requirement of the project.	Received upto the end of 1973-74.	Requirement during 1974-79.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8	9	10
<b>PATRATU THERMAL POWER STATION EXTENSION (2×110 M.W.) 7TH AND 8TH UNITS.</b>									
Cement	.. M.T.	14,000	10,000	4,000	4,000	..	..	..	..
Steel	.. M.T.	11,251	9,530	1,721	1,721	..	..	..	..
Earth-moving equipment.	Nos.	Dumper 4 Dozer 1 Scraper 2 Pusher 1	Work to be managed by existing ones	Nil	..	..	..	..	..
Electrodes	.. Nos.	Special alloy 2,60,000	80,000	1,80,000	1,20,000	60,000	..	..	..
		Steel 14,00,000	3,50,000	10,50,000	5,00,000	2,50,000	..	..	..
Gases	.. Cubic metre	Acetylene 66,000	18,000	48,000	25,000	23,000	..	..	..
		Oxygen 1,50,000	60,000	90,000	54,000	36,000	..	..	..
Coal for Thermal Stations.	Million Tons	0.96 per year	Nil	4.32	0.48	0.96	0.96	0.96	0.96
Foreign Exchange	Rs. (lakhs)	5.93	5.93	..	..	..	..	..	..
<b>BARAUNI THERMAL POWER STATION EXTENSION (1×110 M.W.) 6TH UNIT.</b>									
Cement	.. M.T.	7,000	Nil	7,000	3,500	2,500	1,000	..	..
Steel	.. M.T.	7,532	1,426	6,106	2,500	2,100	1,506	..	..
Earth-moving equipment.	Nos.	Dumper 4 Dozer 1 Scraper 2 Pusher 1	Work to be managed by the existing ones.	Nil	..	..	..	..	..
Electrodes	.. Nos.	6,80,000	Nil	6,80,000	2,00,000	3,00,000	1,80,000	..	..
Gases	.. Cubic Metre	Acetylene 27,500	Nil	27,500	10,000	15,000	2,500	..	..
		Oxygen 60,000	Nil	60,000	22,000	32,000	6,000	..	..
Coal for Thermal Stations.	M.T.	3.29 × 10 <sup>6</sup> per year	Nil	6.58 × 10 <sup>6</sup>	..	..	..	3.29 × 10 <sup>6</sup>	3.29 × 10 <sup>6</sup>
Foreign Exchange	Rs. (lakhs)	6.00	Nil	6.00	3.00	3.00	..	..	..

Note.—Particularly for those schemes which are in preliminary stages of construction, the project authorities are requested to furnish Master Control Net Work (PER T/CPM) to correspond to above annual phasing of benefits and expenditure.

## STATEMENT III.

## STATUS OF EACH PROJECT—FINANCIAL AND PHYSICAL.

Proforma for submission of information on power programme by the States/Centre/U.Ts. in the Fifth Plan period.

## GENERATION PROJECTS.

Annual requirement of Key Materials and Foreign Exchange to achieve the above target.

Key Materials.	Unit.	Total requirement of the project.	Received upto the end of 1973-74.	Requirement during 1974-79.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8	9	10
<b>MUZAFFARPUR THERMAL POWER STATION (2X110 MW).</b>									
Cement	.. M.T.	20,000	Nil	20,000	..	3,000	6,000	11,000	..
Steel	.. M.T.	16,600	Nil	16,600	..	3,000	10,000	3,600	..
Earth-moving equipment.	Nos.	Dumper 4 Dozer 1 Scraper 2 Pusher 1	Nil	Dumper 4 Dozer 1 Scraper 2 Pusher 1	Dumper 4 Dozer 1 Scraper 2 Pusher 1	..	..	..	..
Electrodes	.. Nos.	13,60,000	Nil	13,60,000	..	..	4,00,000	6,00,000	3,60,000
Gases	.. Cubic metre.	Acetylene 55,000 Oxygen 1,20,000	Nil	55,000 1,20,000	..	..	20,000 44,000	30,000 64,000	5,000 12,000
Coal for thermal stations.	Millions Tons.	0.96 per year.	Nil	0.48	..	..	..	..	0.48
Foreign Exchange	Rs. (lakhs)	6.00	Nil	6.00	3.00	3.00	..	..	..
<b>PATRATU THERMAL POWER STATION EXTENSION (2X110 M.W.) 9TH AND 10TH UNITS.</b>									
Cement	.. M.T.	14,000	10,000	4,000	4,000	..	..	..	..
Steel	.. M.T.	11,251	9,530	1,721	1,721	..	..	..	..
Earth-moving equipment.	Nos.	Dumper 4 Dozer 1 Scraper 2 Pusher 1	Work to be managed by existing ones.	..	..	..	..	..	..
Electrodes	.. Nos.	13,60,000	..	13,60,000	..	..	4,00,000	6,00,000	3,60,000
Gases	.. Cubic Metre	Acetylene 55,000 Oxygen 1,20,000	..	55,000 1,20,000	..	..	20,000 44,000	30,000 64,000	5,000 12,000
Coal for Thermal Station.	Million Tons	0.96 per year	Nil	0.48	..	..	..	..	0.48
Foreign Exchange	Rs. (lakhs)	6.00	Nil	6.00	3.00	3.00	..	..	..

Note.—Particularly for those schemes which are in preliminary stages of construction, the project authorities are requested to furnish Master Control Net Work (PER T/CPM) to correspond to above annual phasing of benefits and expenditure.

## STATEMENT III.

## STATUS OF EACH PROJECT—FINANCIAL AND PHYSICAL.

Proforma for submission of Information on power programme by the States/Centre/U.Ts. in the Fifth Plan period.

## GENERATION PROJECTS.

Annual requirement of Key Materials and Foreign Exchange to achieve the above target.

Key Materials.	Unit.	Total requirement of the project.	Received upto the end of 1973-74.	Requirement during 1974-79.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8	9	10
<b>KOEL-KARO HYDEL PROJECT (6×120 M.W.)</b>									
Cement	.. M.T.	3,00,000	Nil	1,90,000	15,000	25,000	40,000	50,000	60,000
Steel	.. M.T.	40,000	Nil	25,000	2,000	3,000	5,000	7,000	8,000
Earth-moving equipment.	Nos.	Scraper 8	Nil	Scraper 8	8	} Nil	} Nil	} Nil	} Nil
		Dozer 8		Dozer 8	8				
		Excavator 6		Excavator 6	6				
		Dumper 6		Dumper 6	6				
		Draglines 4		Draglines 4	4				
		Sheep Foot Roller 15		Sheep Foot Roller 15	15				
Electrodes	.. Nos.	20,00,000	Nil	20,00,000	2,00,000	5,00,000	8,00,000	3,00,000	2,00,000
Gases	.. Cubic Metre	Oxygen 2,40,000	Nil	2,40,000	22,000	55,000	88,000	45,000	30,000
		Acetylene 1,12,000	Nil	1,12,000	10,000	25,000	40,000	20,000	17,000
Coal for Thermal Stations.	M.T.	Nil	..	..	..	..	..	..	..
Foreign Exchange	Rs. (lakhs)	Nil	..	..	..	..	..	..	..

Note.—Particularly for those schemes which are in preliminary stages of construction, the project authorities are requested to furnish Master Control Net Work (PERT/CPM) to correspond to above annual phasing of benefits and expenditure.

**GAS/ DIESEL POWER STATION (2×20MV)**

It is proposed to be a Turn-Key job and therefore details would be worked out by the Supplier.

## STATEMENT IV.

Proforma for submission of Information on power programme by the States/Centre/U.Ts. in the Fifth Plan Period.

## STATUS OF EACH PROJECT.

## GENERATION PROJECTS.

Employment—Numbers (Man—Years).

Scheme.	During Construction Period—Annual.							During Operation Period.				
	1973-74.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	1974-79.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
	2	3	4	5	6	7	8	9	10	11	12	13
<b>KOSI HYDEL, POWER STATION (4×4.8M.W.)</b>												
Skilled—												
(i) Engineering Personnel—												
(a) Degree Holders ..	3	3	..	..	..	..	3	6	6	6	6	6
(b) Diploma Holders ..	3	3	..	..	..	..	3	10	10	10	10	10
(ii) Finance Personnel ..	1	1	..	..	..	..	1	1	1	1	1	1
(iii) Administrators ..	..	..	..	..	..	..	..	..	..	..	..	..
(iv) Others .. ..	89	89	..	..	..	..	89	96	96	96	96	96
(v) Unskilled .. ..	33	33	..	..	..	..	33	9	9	9	9	9
<b>TOTAL ..</b>	<b>129</b>	<b>129</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>129</b>	<b>122</b>	<b>122</b>	<b>122</b>	<b>122</b>	<b>122</b>
<b>SUBERNREKHA HYDEL PROJECT (2×65 M.W.)</b>												
Skilled—												
(i) Engineering Personnel—												
(a) Degree Holders ..	39	39	39	39	..	..	117	..	..	12	20	20
(b) Diploma Holders ..	50	50	50	50	..	..	150	..	..	25	40	40
(ii) Finance Personnel ..	1	1	1	1	..	..	3	..	..	3	3	3
(iii) Administrators ..	1	1	1	1	..	..	3	..	..	2	2	2
(iv) Others .. ..	270	270	270	270	..	..	810	..	..	225	300	300
(v) Unskilled .. ..	200	200	200	200	..	..	600	..	..	60	80	80
<b>TOTAL ..</b>	<b>561</b>	<b>561</b>	<b>561</b>	<b>561</b>	<b>..</b>	<b>..</b>	<b>1,683</b>	<b>..</b>	<b>..</b>	<b>327</b>	<b>445</b>	<b>445</b>

## STATEMENT IV.

Proforma for submission of information on power programme by the States/Centre/U.Ts. in the Fifth Plan Period.

## STATUS OF EACH PROJECT.

## GENERATION PROJECTS.

Employment—Numbers (Man—Years).

Scheme.	During Construction Period—Annual.							During Operation Period.				
	1973-74.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	1974—79.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
	2	3	4	5	6	7	8	9	10	11	12	13
<b>PATRATU THERMAL POWER STATION EXTENSION (2 × 110 M.W.) 7TH AND 8TH UNITS.</b>												
Skilled—												
(i) Engineering Personnel—												
(a) Degree Holders ..	71	71	71	71	..	..	213	..	..	25	50	50
(b) Diploma Holders ..	175	175	175	175	..	..	525	..	..	35	75	75
(ii) Finance Personnel ..	4	4	4	4	..	..	12	..	..	3	4	4
(iii) Administrators ..	5	5	5	5	..	..	15	..	..	5	6	6
(iv) Others .. ..	860	860	860	860	..	..	2,580	..	..	120	210	210
(v) Unskilled .. ..	740	740	740	740	..	..	2,220	..	..	35	75	75
<b>TOTAL ..</b>	<b>1,855</b>	<b>1,855</b>	<b>1,855</b>	<b>1,855</b>	<b>..</b>	<b>..</b>	<b>5,565</b>	<b>..</b>	<b>..</b>	<b>223</b>	<b>420</b>	<b>420</b>
<b>BARAUNI THERMAL POWER STATION EXTENSION (1 × 110 M.W.) 6TH UNIT.</b>												
Skilled—												
(i) Engineering Personnel—												
(a) Degree Holders ..	5	10	22	22	22	..	76	..	..	..	13	13
(b) Diploma Holders ..	12	25	55	55	55	..	190	..	..	..	12	12
(ii) Finance Personnel ..	1	1	2	2	2	..	7	..	..	..	2	2
(iii) Administrators ..	1	1	2	2	2	..	7	..	..	..	2	2
(iv) Others .. ..	75	150	275	275	275	..	975	..	..	..	200	200
(v) Unskilled .. ..	30	60	150	150	150	..	510	..	..	..	55	55
<b>TOTAL ..</b>	<b>124</b>	<b>247</b>	<b>506</b>	<b>506</b>	<b>506</b>	<b>..</b>	<b>1,765</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>284</b>	<b>284</b>

MUZAFFARPUR THERMAL POWER STATION (2×110 M.W.)

Skilled—

(i) Engineering Personnel—

(a) Degree Holders	..	..	25	40	70	70	70	275	..	..	..	..	..
(b) Diploma Holders	..	..	70	115	170	170	170	675	..	..	..	..	..
(ii) Finance Personnel	..	..	1	3	4	4	4	16	..	..	..	..	..
(iii) Administrators..	..	..	2	4	5	5	5	21	..	..	..	..	..
(iv) Others	..	..	400	600	850	850	850	3,550	..	..	..	..	..
(v) Unskilled	..	..	350	550	700	700	700	3,000	..	..	..	..	..
<b>TOTAL</b>	..	..	<b>848</b>	<b>1,312</b>	<b>1,799</b>	<b>1,799</b>	<b>1,799</b>	<b>7,557</b>	..	..	..	..	..

PATRATU THERMAL POWER STATION EXTENSION (2×110 M.W.) 9TH AND 10TH UNITS.

Skilled—

(i) Engineering Personnel—

(a) Degree Holders	..	..	25	50	60	71	71	277	..	..	..	..	..
(b) Diploma Holders	..	..	60	120	145	175	175	675	..	..	..	..	..
(ii) Finance Personnel	..	..	2	3	3	4	4	16	..	..	..	..	..
(iii) Administrators..	..	..	3	4	4	5	5	21	..	..	..	..	..
(iv) Others	..	..	350	650	700	860	860	3,420	..	..	..	..	..
(v) Unskilled	..	..	300	600	650	740	740	3,030	..	..	..	..	..
<b>TOTAL</b>	..	..	<b>740</b>	<b>1,427</b>	<b>1,562</b>	<b>1,855</b>	<b>1,855</b>	<b>7,439</b>	..	..	..	..	..

BARAUNI THERMAL POWER STATION EXTENSION (1×110 M.W.) 7TH UNIT.

Skilled—

(i) Engineering Personnel—

(a) Degree Holders	..	..	10	22	22	22	22	98	..	..	..	..	..
(b) Diploma Holders	..	..	25	55	55	55	55	245	..	..	..	..	..
(ii) Finance Personnel	..	..	1	2	2	2	2	9	..	..	..	..	..
(iii) Administrators..	..	..	1	2	2	2	2	9	..	..	..	..	..
(iv) Others	..	..	150	275	275	275	275	1,250	..	..	..	..	..
(v) Unskilled	..	..	60	150	150	150	150	660	..	..	..	..	..
<b>TOTAL</b>	..	..	<b>247</b>	<b>506</b>	<b>506</b>	<b>506</b>	<b>506</b>	<b>2,271</b>	..	..	..	..	..

STATEMENT IV.

Proforma for submission of Information on power programme by the States/Centre/U.Ts. in the Fifth Plan Period.

STATUS OF EACH PROJECT.

GENERATION PROJECTS.

Employment—Numbers (Man—Years).

Scheme.	During Construction Period—Annual.							During Operation Period.				
	1973-74.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	1974-79.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
	2	3	4	5	6	7	8	9	10	11	12	13
<b>KOEL-KARO HYDEL PROJECT (6×120 M.W.)</b>												
Skilled—												
(i) Engineering Personnel—												
(a) Degree Holders ..	17	65	90	90	90	90	425	..	..	..	..	..
(b) Diploma Holders ..	52	200	280	280	280	280	1,320	..	..	..	..	..
(ii) Finance Personnel ..	..	1	4	4	4	6	19	..	..	..	..	..
(iii) Administrators ..	..	1	4	4	4	7	20	..	..	..	..	..
(iv) Others ..	600	1,200	2,400	2,400	2,400	2,400	10,800	..	..	..	..	..
(v) Unskilled ..	250	500	1,000	1,000	1,000	1,000	4,500	..	..	..	..	..
<b>TOTAL ..</b>	<b>919</b>	<b>1,967</b>	<b>3,778</b>	<b>3,778</b>	<b>3,778</b>	<b>3,783</b>	<b>17,084</b>	..	..	..	..	..
<b>GAS/DIESEL POWER STATION (2×20 M.W.)</b>												
Skilled—												
(i) Engineering Personnel—												
(a) Degree Holders ..	..	6	9	..	..	..	15	15	30	30	30	30
(b) Diploma Holders ..	..	10	20	..	..	..	30	30	60	60	60	60
(ii) Finance Personnel ..	..	..	..	..	..	..	..	1	2	2	2	2
(iii) Administrators ..	..	..	..	..	..	..	..	2	3	3	3	3
(iv) Others ..	..	..	..	..	..	..	..	40	75	75	75	75
(v) Unskilled ..	..	..	..	..	..	..	..	25	50	50	50	50
<b>TOTAL ..</b>	..	<b>16</b>	<b>29</b>	..	..	..	<b>45</b>	<b>113</b>	<b>220</b>	<b>220</b>	<b>220</b>	<b>220</b>



## STATEMENT V.

Proforma for submission of Information on power programme by the States/Centre U.Ts. in the Fifth plan Period.

## STATUS OF EACH PROJECT.

*GENERATION PROJECTS.*

New Generation Projects proposed for inclusion in the Fifth Plan for each Project.

Projects authorities—State Governments are requested to furnish the information in Statements I to IV in respect of each project viz. Financial, Benefits, Key materials, Employment potential supported by Master Control Net Work (PERT/CPM).

Informations in respect of Generation Projects already approved for implementation and New Generation Projects proposed for inclusion in the Fifth Plan have been given together in Statements I to IV. Master Control Net Work (PERT/CPM) shall be furnished later.

STATEMENT VI.  
FOR EACH PROJECT.

Status of execution of the Project approved and/or new Project proposed.

Stage of execution for each major component of the project should be furnished.

Hydro : Kosi Hydel Power Station (4x4.8 M.T.W.)	Unit.	Total quantity/wt. involved.	Actual up to the end of 1972-73.	Anticipated achievement up to (cumulative) the end of Plan.					
				1973-74.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
				4	5	6	7	8	9
<b>Civil Works—</b>									
Such as dam, water conductor system, intake works, Power House, switchyard and associated main transmission works.	All Civil works completed.			..	..	..	..	..	..
<b>Electrical and Mechanical Works—</b>									
Supply of major plant and equipments, progress on erection, testing and commissioning.	No. I	One set of Turbine	100%	100%	100%	100%	100%	100%	100%
	No. II	Generator & Associated	100%	100%	100%	100%	100%	100%	100%
	No. III	Auxiliaries for each	75%	100%	100%	100%	100%	100%	100%
	No. IV	Unit.	40%	80%	100%	100%	100%	100%	100%
(As per Annexure I)									
(i) Switchyard .. 132KV		110Kms.	..	50 Kms.	110 Kms	110 Kms.	110 Kms.	110 Kms.	110 Kms.
(ii) Transmission works line D/C to Hatia.									
(iii) Power Channel I, II and III.	Ft.	36,160 ft.	I—33%	100%	100%	100%	100%	100%	100%
			II—7.5%	60%	100%	100%	100%	100%	100%
			III—25%	60%	100%	100%	100%	100%	100%
(iv) Penstock I and II	Ft.	2,590 ft.	..	100%	100%	100%	100%	100%	100%
(v) Forebay Dam ..	Ft.	5,737 ft.	4%	100%	100%	100%	100%	100%	100%
(vi) Tunnel I and II ..	Ft.	8,360 ft.	I—3%	60%	100%	100%	100%	100%	100%
			II—12%	60%	100%	100%	100%	100%	100%
(vii) Power House I and II Nos.		2 nos.	I—9.8%	100%	100%	100%	100%	100%	100%
			II—2.2%	60%	100%	100%	100%	100%	100%
<b>Electrical and Mechanical Works—</b>									
(i) Supply of major plant and equipment.	P.H. I.	700 tons.	40 tons	300 tons	700 tons	700 tons.	700 tons	700 tons	700 tons
	P.H. II	700 tons	40 tons	..	700 tons	700 tons	700 tons	700 tons	700 tons
(ii) Progress of Erection, testing and commissioning.	P.H. I	100%	..	25%	100%	100%	100%	100%	100%
	P.H. II	100%	..	..	25%	100%	100%	100%	100%

ANNEXURE I.

Sl. no.	Description.	P.H. I	P.H. II.
1	11/132 KV Transformer(80 MVA)	1	1
2	132 KV A.B.C.B. ..	7	7
3	132 KV Isolator ..	18	18
4	11/0.415 Transformer	3	3
5	132 KV. C.T.	21	21
6	132 KV P.T.	33	33
7	132 KV lightning Arrestor	8	8

N.B.—The delivery of above equipments for P.H.I is spread over 1973-74 and 1974-75 and that for P. H. II will follow at 6 month's later,

STATEMENT VI  
FOR EACH PROJECT.

Status of execution of the Project approved and/or new Project proposed.

*Stage of execution for each major component of the Project should be furnished.*

Thermal Station: Patratu Thermal Power Station Extension (2×110 MW) 7th and 8th Units.	Unit.	Total quantity/wt. involved.	Actual upto the end of 1972-73.	Anticipated achievement upto (cumulative) the end of Plan.					
				1973-74.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8	9	10
<b>Civil Works—</b>									
1. Concrete and allied works in foundation, sub-structure and underground facilities.	Per cent	100%	80%	100%	100%	100%	100%	100%	100%
2. Fabrication and erection of structural steel works.	Per cent	100%	5%	85%	100%	100%	100%	100%	100%
3. R.C.C. Chimney .. Nos.		1	50%	100%	100%	100%	100%	100%	100%
4. General Building Works	Per cent	100%	..	15%	65%	100%	100%	100%	100%
5. Cooling Tower .. Nos.		2	..	20%	70%	100%	100%	100%	100%
6. Ash and Coal-handling system.	Per cent	100%	15%	70%	100%	100%	100%	100%	100%
<b>Electrical and Mechanical Works—</b>									
1. Boilers .. M.T.		8,803 MT	8,431 MT	8,431 MT	8,431 MT	8,431 MT	8,431 MT	8,431 MT	8,431 MT
2. Turbo-generators .. M.T.		1,952 MT	..	1,952 MT	1,952 MT	1,952 MT	1,952 MT	1,952 MT	1,951 MT
3. Mechanical equipments (miscellaneous).				As per Annexure I attached.					
4. Electrical equipments (miscellaneous).				As per Annexure I attached.					

## ANNEXURE I.

DETAILS FOR PATRATU THERMAL POWER STATION EXTENSION STAGE III (7TH AND 8TH UNITS.)

Serial no.	Item of equipment.	Source.	Total Qty.	Actual upto end of 1972-73.	Anticipated achievement upto end of the plan.		
					1973-74.	1974-75.	1975-76.
1	2	3	4	5	6	7	8
1	125 MVA Generator Transformer.	HEIL, Bhopal ..	2 nos.	..	Delivery to be completed.	Erection of electrical equipments.	
2	Generator Bus-duct ..	Crompton Engineering Works.	2 sets	..	Ditto	Ditto	
3	220 KV Circuit Breakers	BHEL, Hyderabad ..	3 nos.	..	Ditto	Ditto.	
4	220 KV Current Transformers.	HEIL, Bhopal ..	9 nos.	..	Ditto	Ditto.	
5	220 KV Isolators ..	HIVELM Industries, Madras.	12 nos.	..	Ditto	Ditto.	
6	Station Service Transformers.	EASUN Engineering, Madras.	2 sets	..	Ditto	Ditto.	
7	Instrumentation ..	Instrumentation Keta, Ltd.,	..	..	Ditto	Ditto.	
8	6.6 KV Switchgear ..	Jyoti, Baroda ..	3 sets	..	Ditto	Ditto	
9	Electrical Control Board	English Electric, Madras	2 sets	..	Ditto	Ditto.	
10	Battery and Charging Equipment.	Standard Batteries, Bombay.	1 set	..	Ditto	Ditto.	
11	Auxiliary Trans. ..	Siemens, Calcutta ..	50 nos.	..	Ditto	Ditto,	
12	Unit Transformer ..	Crompton Greaves, Bombay.	2 nos.	..	..	Delivery to be completed in May, 1974.	
13	415 Volts Switchgears	English Electric, Calcutta.	10 nos.	..	Delivery to be completed.	..	
14	Current Limiting Reactor.	HEIL, Bhopal ..	2 nos.	..	..	Delivery to be completed	
15	Motor Control Centre ..	Siemens, Calcutta ..	43 sets	..	..	Delivery to be completed in May, 1974.	
16	Inter-Communication ..	Philips, Bombay ..	..	..	Delivery completed.		
17	Power and Control Cables—						
	(a) H. T. Cables ..	Siemens, Calcutta ..	23 Km.	..	..	Delivery to be completed in February 1974.	
	(b) L. T. Power and Control Cables.	M/s. Power Cables, Bombay.	L.T. Power Cable 63 KM Control Cable 45 KM	..	..	Ditto	
18	AC/D.C. Distribution Boards.	Siemens, Calcutta ..	38 sets	..	..	..	Delivery to be completed.
19	Boiler for 7th unit ..	BHEL, Trichy ..	4,414 MT	4,338 MT	76 MT	Erection, testing and commissioning.	

## ANNEXURE I—concl'd.

## DETAILS FOR PATRATU THERMAL POWER STATION EXTENSION STAGE III (7TH AND 8TH UNITS)—concl'd.

Serial no.	Item of equipment.	Source.	Total Qty.	Actual upto end of 1972-73.	Anticipated achievement of the plan.		upto end 1975-76.
					1973-74.	1974-75.	
1	2	3	4	5	6	7	8
20	Turbogenerator for 7th unit.	BHEL, Hyderabad	.. 976 MT	..	976 MT	Erection, testing and commissioning.	
21	Boiler for 8th unit	.. BHEL, Trichy	.. 4,389 MT	4,093 MT	296 MT	Ditto.	
22	Turbogenerator for 8th unit.	BHEL, Hyderabad	.. 976 MT	..	976 MT	Ditto.	
23	Coal Handling System	ELECON Engineering Co. Ltd., Gujarat.	..	50% delivery completed.	Full delivery to be completed.	Ditto.	
24	Ash Handling System	M/s. Ingenieurs & Agents, New Delhi.	..	..	Ditto	Ditto.	
25	C. W. Piping and Steel Tanks.	M/s. Khatants Engineering Works, U.P.	..	..	40% of steel to be supplied by BSEB by December 1973.	Delivery to be completed by December 1974.	
26	Water Treatment Plant	( Exchange India Ltd., Bombay.	..	Delivery just commenced.	..	Delivery to be completed in December, 1974.	
27	C.W. Pump & Drives	Mather & Platt, Calcutta	..	Delivery completed.	..	..	
28	Electrostatic Precipitators	M/s. Voltas Ltd., Calcutta	..	..	..	Delivery to be completed in October, 1974.	

**STATEMENT VI.**  
**FOR EACH PROJECT.**

Status of execution of the Project approved and/or new Project proposed.

Stage of execution for each major component of the project should be furnished.

Thermal Stations : Barauni Thermal Power Station Extension (1 X 110 MW) 6th Unit.	Unit.	Total Quantity/ Wt. involv- ed.	Actual upto the end of 1972- 73.	Anticipated achievement upto (cumulative) the end of Plan—						
				1973- 74.	1974- 75.	1975-76.	1976-77.	1977-78.	1978-79.	
	1	2	3	4	5	6	7	8	9	10
<b>Civil Works —</b>										
Foundation ..	%	100	50	100	100	100	100	100	100	100
Chimney ..	%	100	..	..	40	100	100	100	100	100
Power House ..	%	100	..	..	40	95	100	100	100	100
Coal Handling Plant ..	%	100	..	..	60	100	100	100	100	100
Railway Siding ..	%	100	..	..	40	80	100	100	100	100
<b>Electrical and Mechanical Works—</b>										
Turbine and Auxiliaries	M.T.	948.8 M.T.	..	..	..	948.8 M.T.	948.8 M.T.	948.8 M.T.	948.8	948.8
Pumps ..	M.T.	36.40 M.T.	..	..	..	..	36.40 M.T.	36.40	36.40	36.40
Generator ..	M.T.	161.28 M.T.	..	..	..	161.28 M.T.	161.28 M.T.	161.28	161.28	161.28
Excitor ..	M.T.	10.35 M.T.	..	..	..	..	10.35 M.T.	10.35	10.35	10.35
Hydrogen and oil system	M.T.	8.92 M.T.	..	..	..	..	8.92 M.T.	8.92	8.92	8.92
Boiler ..	M.T.	4,400 M.T.	..	..	..	4,400 M.T.	4,400 M.T.	4,400 M.T.	4,400 M.T.	4,400 M.T.
<b>Civil Works—</b>										
Foundation ..	%	100	..	..	60	100	100	100	100	100
Chimney ..	Nos.	1 No.	..	..	..	40	100	100	100	100
Power House ..	Nos.	1 No.	..	..	..	40	95	100	100	100
Cooling Tower ..	%	100 %	..	..	..	40	95	100	100	100
Coal Handling Plant ..	Nos.	1 No.	..	..	..	60	100	100	100	100
Railway siding ..	Nos.	1 No.	..	..	..	80	100	100	100	100
<b>Electrical and Mechanical Works—</b>										
Turbine and Auxiliaries	M.T.	1,897.6	..	..	} 1,000 M.T. 3,300 M.T. 5,600 M.T. 8,500 M.T. 11,075.83 M.T.					
Pumps ..	..	72.8	..	..						
Generator ..	..	322.56	..	..						
Excitor ..	..	20.7	..	..						
Hydrogen and oil system	..	17.84	..	..						
Builder ..	..	8,800	..	..						

**STATEMENT VI**  
**FOR EACH PROJECT**

Status of execution of the Project approved and/or new Project proposed.

*Stage of execution for each major component of the project should be furnished.*

Thermal Stations : Patratu Thermal Power Station Extension (2×110 MW) 9th and 10th Unit.	Unit.	Total quantity/ Wt. involved.	Actual upto the end of 1972-73.	Anticipated achievement upto (cumulative) the end of Plan—					
				1973- 74.	1974- 75.	1975-76	1976-77	1977-78	1978-79
1	2	3	4	5	6	7	8	9	10
			Per cent				Per cent	Per cent	Per cent
<b>Civil Works—</b>									
Foundation	.. %	100	..	..	..	..	20	60	100
Chimney	.. %	100	..	..	..	..	30	80	100
Cooling Tower	.. %	100	..	..	..	..	..	40	80
Coal Handling	.. %	100	..	..	..	..	20	50	80
Marshalling Yard	.. %	100	..	..	..	..	..	40	80
<b>Electrical and Mechanical Works—</b>									
Turbine and Auxiliaries	M.T.	1,897.6 M.T.	..	..	} 1,000 M.T.	} 3,300 M.T.	} 5,600 M.T.	} 8,500 M.T.	} 11,075.83 M.T.
Pumps	.. M.T.	72.8 M.T.	..	..					
Generator	.. M.T.	322.56 M.T.	..	..					
Excitor	.. M.T.	20.7 M.T.	..	..					
Hydrogen and oil system	M.T.	17.84 M.T.	..	..					
Boiler	.. M.T.	8,800 M.T.	..	..					
<b>Civil Work —</b>									
Foundation	.. %	100	..	..	40	100	100	100	100
Chimney	.. %	100	..	..	..	..	..	..	..
Power House	.. %	100	..	..	..	40	80	100	100
Coal Handling Plant	.. %	100	..	..	..	40	80	100	100
Railway siding	.. %	100	..	..	..	40	80	100	100
<b>Electrical and Mechanical Works--</b>									
Turbine and Auxiliaries	M.T.	948.8 M.T.	..	..	..	..	..	948.8	948.8
Pumps	.. M.T.	36.4 M.T.	..	..	..	..	..	..	36.4
Generator	.. M.T.	161.28 M.T.	..	..	..	..	..	161.28	161.28
Excitor	.. M.T.	10.35 M.T.	..	..	..	..	..	..	10.35
Hydrogen and oil system	M.T.	8.92 M.T.	..	..	..	..	..	..	8.92
Boiler	.. M.T.	4,400 M.T.	..	..	..	..	..	4,400	4,400

**STATEMENT VI.**  
**FOR EACH PROJECT**

Status of execution of the Project approved and/or new Project proposed.  
*Stage of execution for each major component of the project should be furnished.*

Hydro : Koel-Karo Hydel Project (6 X, 20 MW).	Unit.	Total quantity/ Wt. involved.	Actual upto the end of 1972- 73.	Anticipated achievement upto (cumulative) the end of Plan—					
				1973- 74.	1974- 75.	1975- 76.	1976- 77.	1977- 78.	1978- 79.
1	2	3	4	5	6	7	8	9	10
<b>Civil works—</b>									
Such as Dam, water conductor system, intake works, power house, Switchyard and associated main transmission work.	..	..	..	..	..	..	..	..	..
<b>Electrical and Mechanical Works—</b>									
Supply of major plant and equipment progress on erection, testing and com- missioning.	..	..	..	..	..	..	..	..	..
<b>Thermal Stations—</b>									
<b>Civil Works—</b>									
Such as foundations, intake works, power house, cooling water, cool handling plant, Railway siding.	..	..	..	..	..	..	..	..	..
<b>Electrical and Mechanical Works—</b>									
Such as supply of major components of boilers, T.C. set, condensers, Pumps, water treatment plant, transformers, coal handling plants, Ash handling equipment and associated main trans- mission works.	Detailed data not available. These shall be furnished shortly.								



**STATEMENT VII.**

**TRANSMISSION SYSTEM.**

**PROPOSED IMPROVEMENT OF THE SYSTEM EFFICIENCY.**

*Existing system losses excluding consumption in auxiliaries, 1973-74 (anticipated).*

Total units generated and purchased.	Total energy losses in transmission and distribution.	Percentage loss in trans. and distribution.	Describe the proposed scheme briefly.	Proposed reduction in losses in percentage.					Status of the schedule whether approved.
				1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	If not, stage of preparation of the report.
Million.	Units.			5	6	7	8	9	10
1913 (generated) .. + 880 (purchased)	654	27%	It would consist of 400, 220% 132 KV lines at 400/220, 220/132, 132/33 KV Sub-stations.	26 %	25%	24 %	22 %	20 %	Scheme is under preparation.

**ANNUAL FINANCIAL REQUIREMENT OF THE ABOVE SCHEME .**

[RUPEES IN CRORES]

Total expenditure incurred if any, on the proposed Scheme up to 1973-74.	Annual Plan.						Total 1974-79.		
	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.				
	1	2	3	4	5	6	7		
24.84 Crores (Fourth Plan only)	..	..	..	15.00	14.16	15.00	18.00	18.00	80.16
				+4.00*	+4.00*	+4.00*	+4.00*	+4.00*	+20.00*

\*From A.E.C., R.E.C. and Commercial Banks, etc.

**STATEMENT VIII**  
**PROGRAMME FOR THE FIFTH PLAN.**

(b) Major Transmission lines.—

Financial Requirement

[Rs. IN CRORES.]

Category of Lines.	Total cost.	Expenditure incurred up to the end 1973-74.	Spillover requirement in Fifth Plan.	Annual Phasing of Outlays.					Total 1974-79	Spill over into VI Plans, if any.
				1974-75.	1975-76.	1976-77.	1977-78.	1978-79.		
1	2	3	4	5	6	7	8	9	10	11
(i) Continuing—										
400 KV Nil 220 KV Lines and 220/ 132 KV 132 & 132/33 KV S/S	30.00 (Fourth Plan only).	24.84	5.16	4.00	1.16	..	..	..	5.16	..
Annual Phasing.										
	Total cost.	Annual Phasing.					Total 1974-79.		Spill over into VI Plan, if any.	
1	2	3	4	5	6	7	8	9		
(ii) Proposed New Transmission Lines—										
400 KV Lines and 400/220, 220/132 & 220 KV 132/33 KV Sub-station. 132 KV	75.00 +20.00* Crores (Fifth Plan Outlay).	11.00 +4.00*	13.00 +4.00*	15.00 +4.00*	18.00 +4.00*	18.00 +4.00*	18.00 +4.00*	75.00 +20.00*	It is a running scheme.	

\*From A.F.C., R.E.C. and Commercial Banks, etc.

## STATEMENT IX.

## BENEFITS.

## Major Transmission Lines (in K.M.)

Category of Lines.	Total programme Fourth Plan only.	Actual up to the end of 1972-73.	Anticipated up to the end of 1973-74.	Annual Proposed Achievement in K. M.							Total 1974-79.	Spillover into Sixth Plan, if any.
				1974-75.	1975-76.	1976-77.	1977-78.	1978-79.				
1	2	3	4	5	6	7	8	9	10	11		
(i) Continuing—												
400 KV	..	..	..	..	..	..	..	..	..	..		
220 KV	800	656	144	..	..	..	..	..	..	..		
132 MV	1,660	542	312	806	..	..	..	..	..	..		

Category of lines	Total programme (Tentative).	Annual Proposed Achievement in K. M.							Total 1974-79.	Spillover into Sixth Plan, if any.
		1974-75.	1975-76.	1976-77.	1977-78.	1978-79.				
1	2	3	4	5	6	7	8	9		
(ii) New Proposed Lines—										
400 KV	..	628	38	100	69	170	253	628	..	
220 KV	..	1,264	120	200	204	400	340	1,264	..	
132 KV	..	1,723	90	160	430	500	543	1,723	..	

NOTE.—(Schemes/Lines to be constructed to achieve the minimum need programme under Rural Electrification are to be specified.)

## STATEMENT X.

[Rupees in lakhs.]

Name of the Scheme.	Total cost.	Expenditure incurred up to the end of 1973-74.	Annual phasing of Outlay—					Total 1974—79.	Spill over into VI Plan, if any.
			1974-75.	1975-76.	1976-77.	1977-78.	1978-79.		
1	2	3	4	5	6	7	8	9	10
INVESTIGATION.									
(a) Continuing—									
1. South Koel-Kaw Hydrel Project.	120.00	Being compiled.	20.00	20.00	20.00	20.00	20.00	100.00	Being compiled.
2. Muzaffarpur Thermal Project.	30.00	Ditto	4.00	4.00	4.00	4.00	4.00	20.00	Ditto.
(b) New—									
1. North Koel Hydrel Project.	150.00	Nil	35.00	30.00	25.00	25.00	35.00	150.00	..
2. Ray Thermal Prpject	90.00	Nil	15.00	15.00	15.00	25.00	20.00	90.00	..
3. Rajmahal Thermal Project.	25.00	Nil	5.00	5.00	5.00	5.00	5.00	25.00	..
4. Barauni Extension Thermal Project.	25.00	Nil	4.00	5.00	6.00	5.00	5.00	25.00	..
5. Patratu Extension Thermal Project.	20.00	Nil	4.00	4.00	4.00	4.00	4.00	20.00	..
6. Sankh Hydrel Project	80.00	Nil	14.00	14.00	14.00	14.00	14.00	70.00	10.00

The requirement is to be supported by the time bound programmes with brief details of each Scheme.

## STATEMENT XI.

## POWER OUTLAYS.

## BENEFITS.

(Rs. in crores)

Electrification.	Annual Physical programme(cumulative).						Annual financial requirement.							
	As at the end of fourth plan 1973-74.	1974-75.	1975-76.	1976-77.	1977-78	1978-79.	Total 1974- 1979.	Anticipa- ted expd. in 1973-74.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	1974-79
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Total including Minimum.														
Needs Programme—														
(a) No. of village electrified/ proposed(in thousands).	11.00	15.00	19.67	24.62	29.52	34.50	34.50	15.00	11.75	16.75	17.25	17.25	17.00	80.00
									+8.00*	+8.00*	+8.00*	+8.00*	+8.00*	+40.00*
(b) No. of pumps energised/ proposed (in thousand).	115.7	158.74	201.78	244.83	287.87	330.92	330.92	..	3.00	3.00	3.00	3.00	3.00	15.00
									+8.00*	+8.00*	+8.00*	+8.00*	+8.00*	+40.00*
(c) Rural Population benefited (according to 1961 census / proposed in millions)	12.43	16.42	20.81	25.40	29.99	34.58	34.58	15.00	14.75	19.75	20.25	20.25	20.25	95.00
									+16.00*	+16.00*	+16.00*	+16.00*	+16.00*	80.00*
2. Minimum Needs Programme.—														
(a) No. of villages proposed for electrification.	..	0.75	2.27	3.70	5.31	6.83	6.83	..	5.00	10.00	10.00	10.00	10.00	45.00
(b) Proposed rural population benefited (millions).	..	0.37	1.11	1.85	2.59	3.33	3.33	..	5.00	10.00	10.00	10.00	10.00	45.00

\*From A. F. C., R. E. C., etc.

N.B.—(2b) Taken from M.N.P. book and spread over 5 years as per allocation during the year.

(2a) Proportionate to the yearwise allocation after reducing the programme from 47 to 45 crores, i.e.  $7131/47 \times 45$  villages during the Fifth Plan. other expenses of 33/11 KV S/S and 33 KV lines have been assumed to have been transferred to the R.E. programme.Village under R.E.  $24,000/108 \times 120 = 16,665$  villages  $3,60,000/92 \times 75 = 2,15,215$  pumps.

(1a) 16,665 villages spread over as per allocation each year and M.N.P. added, i.e.

(1b) Spread over as per allocation.

(1c) Pro data calculation for the R.E. portion and the M.N.P. added.

74/75 (Population) i.e.  $12.43$  million/ $11.0$  thousand villages  $\times 14.2$  (74/75)  $+ 0.37$  million (74/75).  
 $1.13 \times 14.2 + 0.37$  (16.05) 37 16.42.

## STATEMENT XII.

Power Availability position.

	1973-74.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7
1. Energy consumption at Consumer's end (Mk-Wh.).	1927	2572	2610	2928	3615	4020
2. Energy demand at bus bars (Mk-Wh.)	2536	3384	3391	3754	4576	5025
3. Peak Demand (M.V) .. ..	782	1272	1489	1758	1900	2125
4. Installed capacity (M. ) .. ..	560	565	780	1065	1175	1625
5. Import from outside (M.v)	367	807	749	843	985	1100
6. Energy Generation Programme(Mk-Wh.)*	1820	1945	1962	2480	3042	3428
7. Energy purchase programme (Mk-Wh.)	880	1614	1606	1497	1808	1905

\*Source may please be indicated.

Sources of Import from outside.

- (i) D.V.C.
- (ii) O.S.E.B.
- (iii) W.B.S.E.B.
- (iv) U.P.S.E.B.

## CHAPTER

## INDUSTRY

### Introductory

Bihar with 10.5 per cent of the country's population compressed in 5.3 per cent of the area of the country continues to remain industrially backward. This country as a whole is not industrially advanced but, within it, the position of Bihar is much lower than the average. In respect of some indicators of industrial growth it is just below the average line while in respect of many others it ranks much lower. With its northern half covered with a tract of fertile land criss-crossed by numerous rivers on both sides of the Ganga affording opportunity for flow irrigation and lift irrigation and with its southern half having one of the highest concentration of mineral wealth in the world one would expect that this territory should have advanced economically at a very fast rate. Apparently proper conditions for such growth have not been created.

\*2. There are very few places in the world with as much concentration of basic and important minerals underground as available in the plateau of South Bihar. This State produces 46 per cent of the country's coal, 45 per cent of bauxite, 82 per cent of copper, 88 per cent of kyanite, 50 per cent of mica, 25 per cent of iron ore and 10 per cent of limestone. It has some of the richest forests in the country. 18 per cent of its land is covered with forest. Some basic metals like steel, alumina and copper are also produced here in ample measure. Out of about 6.2 million tons steel ingots this State produces about 1.7 million tons. With such vast wealth and opportunities of which only a few have been cited above as examples the progress of industrialisation in this State has been exceedingly tardy. Ninety per cent of its populations till remains in villages and 83 per cent of its working population is engaged in agriculture, the corresponding figures for the country as a whole are 80 per cent and 70 per cent respectively. Only 2.6 per cent of the workers are engaged in manufacturing industries excluding household industries in the State as against 5.9 per cent in the country. Bihar has 9.7 per cent of the workers in the country and yet in the manufacturing industries excluding household industries its share is only 4.2 per cent.\*

Manufacturing industries contribute 12.2 per cent to the net domestic product in this State, as against 13.2 per cent for the country as a whole. Bihar contributes only 6.9 per cent to the net domestic product of the country coming from the manufacturing industries sector. For some States like Maharashtra and West Bengal these percentages are comparatively very high, in most cases going above 20 per cent. The Annual Survey of Industries 1968 (Census sector) indicates that this State has only 8.58 per cent of the productive capital in the country, 5.52 per cent of employment, 6.29 per cent of the ex-factory value of output and 6.26 per cent of the net value added by manufacturers. Considering the great potentiality these are definitely very modest figures. In States like Maharashtra and West Bengal these percentages are even three to four times those of Bihar. Tamil Nadu, Gujrat and U.P. have also comparatively higher percentage in respect of these indicators.

3. The paradox of industrial stagnation amidst plentiful resources has its origin in very complex socio-economic phenomenon and it is difficult to define precisely the various forces which have operated through decades to accentuate the gap between the possibility in this State and the results that have been achieved. However, some of the broad factors which have been identified and can be specifically mentioned in simple words are the following:—

- (a) The people of this State have had their roots deep in agriculture. There has always been a dearth of local entrepreneurs in the field of industries. Though people are gradually coming forward now, yet the shift from agriculture to industry is generally a time taking process.

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\*Source—Census of India, Central Statistical Organisation, Directorate of Statistics, Government of Bihar.

- (b) Infra-structure facilities have not been fully developed in this State. Many of its areas are not yet connected with railway or with metalled road. Extension of electric transmission line in remote area has also started only recently.
- (c) There has always been dearth of technical consultancy service in the State and, therefore, the new entrepreneurs who want to come to the field get frustrated right in the beginning as very often they cannot get proper advice conveniently.
- (d) Although there have been large investments in the basic industries in the metallurgical and heavy machinery sectors in the past, they have not generated appreciable spread-effect.
- (e) The size of the total effort in the industries sector of development activities has been too low to generate any significant impact.

4. The salient features of the industrial structure in Bihar can be summarised as below:—

- (a) It ranks low among the States in the country in respect of industrial growth.
- (b) The Industries Sector is dominated by household industries which do not have normally an inbuilt ability to change from traditional to modern methods of production.
- (c) Though some big industrial units have been established in this State the spread effect has been almost negligible.
- (d) There is a concentration of industrial units in some regions like the urban areas of Ranchi, Dhanbad and Singhbhum districts and vast tracts of these districts as also of other districts have only very few industries.

5. *Objective and strategy of Fifth Five-Year Plan.*—The broad objective of the Fifth Five-Year Plan in the State is to raise the State's per capita income upto the level of national average by the end of the Fifth Five-Year Plan and to generate sufficient employment. Thus the objective before the Industries Sector also is to add substantially to the net domestic product of the State as also to generate new employment on a sizeable scale. The exact percentage contribution of the Industries Sector to the net domestic product at the end of the Fifth Five-Year Plan and similarly, the exact employment opportunities created within this sector is difficult to be precisely laid down. However, within the available resources allocated to this sector the overall objective is to achieve a sharp rise in net domestic product and in employment.

6. The strategy to be employed for this purpose will be as follows:—

- (i) to make direct investment in appropriate industries, new as well as existing;
- (ii) to increase infra-structure facilities and to provide other facilities and incentives which will attract new industries and improve the viability of the existing ones;
- (iii) to enable the small and household sector industries to become more viable.

Whereas in case of direct investment some approximate calculation can be made of the expected production and the employment opportunities generated, such a calculation becomes extremely difficult in case of the return from investment in infra-structure and incentives. It is difficult to have even a rough idea of the co-efficients connecting the investment in infra-structure facilities and in providing incentives on the one hand and the expected investment of capital and the annual production on the other.



7. For an increase in the net domestic output in the State it is necessary that there is a big boost up in the contribution of manufacturing industries. Keeping the overall objectives of the 5th Five-Year Plan in the State it is imperative that there is complete break-through in the programmes of the Industries Sector. Merely raising the outlay by a certain percentage in proportion to the increase in other sector will not yield expected results. Similarly there has to be a complete re-orientation of the implementation machinery and institutional changes have also to be brought about to reach the goal.

8. In the first four plans the outlays in the Industries Sector have been too low. In fact, there has been only a small increase in the allocation in this sector from the second plan upto the fourth plan, though the total outlay of the State has been, almost trebled during this period. The following statement gives the comparative picture of the allocation in different plans.

(RUPEES IN LAKHS.)

	First Plan	Second Plan	Third Plan	Fourth Plan
1	2	3	4	5
State .. ..	66,74.06	1,90,21.99	3,37,04.33	5,21,28.00
Large and Medium Industries ..	86.27	1,47.88	2,80.00	7,00.00
Small and Village Industries ..	49.72	10,07.98	11,03.00	7,00.00
Total Industries Sector ..	1,35.99	11,54.86	13,83.00	14,00.00

With such meagre resources bold steps could not be envisaged in these plans. If now even in the 5th Plan we merely think of doubling the fourth plan outlay in the Industries Sector the expected break-through or a big push just cannot be achieved. What is needed is a new thinking altogether and consequently a plan for Rs. 70 crores in the Industries Sector has been envisaged. Although even bigger allocation could have been conceived with adequate justification, the overall constraints of resources on the size of the State Plan cannot be disregarded while deciding the size of outlay in this sector.

9. The strategy of industrial growth has to be related to the two main reasons of slow progress which have been briefly described in the previous section. We have to encourage industrial entrepreneurship. Environment has to be created so that potential entrepreneurs feel prompted to leave other sectors where they are not fully employed though they are to some extent secure. They have to be persuaded to come into the new field of industries where they may have to face some risk but where there is a bright future. The administrative procedures have to be streamlined so that these entrepreneurs do not feel discouraged because of delay and lack of direction. A large number of project profiles have to be prepared so that the new entrants can conveniently select industries of their choice. Technical consultancy has to be made available to them where they can freely discuss the pros and cons of the various alternatives and come to a decision in an intelligent way with full confidence. Liaison with large and medium industries has to be kept so that small entrepreneurs are fully aware of the needs of these big industries and then come up with their ancillary units. Similarly, marketing intelligence has to be organised and there has to be a system of disseminating the information to the prospective

entrepreneurs. Proper organisation for assessment of the need of raw materials has to be set up and similarly arrangements have to be made for smooth distribution of raw materials to the entrepreneurs.

10. Infra-structure facilities have to be developed. Transport facilities like metalled road and railways can be extended by various departments of the State and Central Government. A large number of growth centres have to be selected. Land has to be developed and in some cases even sheds have to be constructed. Provision of roads, water-supply and electricity has to be made in these growth centres. Thereafter, the entrepreneurs will be given suitable plots or sheds in which they can start their industries. Some such growth centres have already come up. Steps have to be taken to utilise the available infra-structure in these centres fully.

Provision of infra-structure however is only a first step. The next problem that the entrepreneurs face is in the form of initial arrangement for capital to be invested. A big programme for equity participation as also for helping them with a part of the margin money has to be taken up. This will help in their utilising the institutional finances to a great extent, thus reducing pressure on plan allocation.

Institutional changes at some prominent growth centres have already set in. These will be extended to other areas. Besides, institutional set-up at the district headquarters will also be remodelled to cater to the needs of the large number of entrepreneurs who may be expected to come forward. Around the big industries, steps will be taken for growth of ancillary industries. These will be mostly distributed at various centres in South Bihar and at Barauni in North Bihar. Besides, in the South Bihar, industries based on minerals and metals will be encouraged. In the North Bihar, however, where there is no mineral resources nor production of metal but which is rich in agricultural land and is densely populated, an appropriate strategy is to encourage agro-based and consumer goods industries.

11. Special attention will be paid to backward regions. In fact, the whole State is industrially backward as is evident from the description given earlier; yet within the State also, there are certain regions which are still more backward. Special attention for development of growth centres in these regions and for provision of incentives will have to be taken.

12. Some large and medium industries in the State are closed. Those of them which have been closed not for inherent defects in their viability but for reasons which can be tackled will be taken up, for revitalisation and modernisation. This will ensure utilisation of the existing installed capacity.

13. Particularly, in respect of large and medium industries the main emphasis will be on completing the projects which were taken in the Fourth Five-Year Plan and have yet to be completed. Similarly some projects of the Fourth Five-Year Plan will be taken up for expansion, particularly, with a view to having balanced machinery and equipment in order to utilise the plant capacity to the maximum. The new industries may come up in the field of manufacture of cement, aluminium, paper, textile, industries based on forest products, consumer goods industries like vegetable oils, synthetic detergent, etc., industries based on agricultural raw materials like jute mill, etc. Besides, industries may also be set up in order to utilise the bye-products of the steel factory at Bokaro, the Indian Oil Refinery at Barauni, the fertiliser factories at Sindri and Barauni. The sulphur coming out of the Amjhore mines will also be partly utilised for production of sulphuric acid which will in turn, provide raw material for a number of down-stream project.

14. These efforts in the State Sector Plan may not be quite adequate for the desired result to be achieved. However, the investment in Bihar in the Central Sector is expected to bridge the gulf to a considerable extent.

It is likely that Central Government will make some investment for the expansion of Bokaro Steel Project. Besides, investment is also expected in the proposed Petrochemical Complex near Barauni and Coal based fertiliser Plant in Ramgarh-Karanpura belt.

Existing Small Scale Units are largely household industries and they do not have inbuilt ability to change from traditional to modern method of production. It is necessary that the whole structure of small scale industries should be improved by providing suitable modernisation scheme. Modernisation and improvement of existing unit has been accepted as important programme during Fifth Five-Year Plan.

#### 15. Summary of proposed Fifth Plan outlay.

Rs. in lakh.

(1) Large and Medium Industries	..	..	..	38,95.70
(2) Village and Small Industries	..	..	..	30,62.488
Total Industry Sector	..	..	..	<u>69,58.188</u>

16. *Appraisal of the Fourth Five-Year Plan Schemes.*—The following is in brief the performance in respect of various schemes which were taken up during the Fourth Five-Year Plan.

17. *Bihar State Industrial Development Corporation.*—The main activity of this corporation is to run some manufacturing units directly and to help private sector units mainly through equity participation and sometimes also through loan. The units directly run by this corporation at present are the following :—

- (1) Bihar State Superphosphate Factory, Sindri.
- (2) High Tension Insulator Factory, Ranchi.
- (3) Electrical Equipment Factory, Tatisilwai, Ranchi.
- (4) Bihar Spun Silk Mill, Bhagalpur.

The last unit namely Bihar Spun Silk Mill, Bhagalpur has not yet started production.

(a) *Bihar State Superphosphate Factory.*—The installed capacity of the superphosphate plant is 10 tons per hour and that of sulphuric acid plant 25 tons per day. Thus the installed capacity of the superphosphate plant is 72,000 tons per year but that of the sulphuric acid plant is such that only 18,000 tons per year of superphosphate can be produced. There is thus a basic imbalance in the structure of this plant. After 1967-68 it has been running in loss. Besides the difficulties in getting sulphuric acid in adequate quantity at economic price, main reason for repeated loss in this factory is its old machinery. A technoeconomic investigation was made by the Planning and Development Division of the Fertilizer Corporation of India with a view to putting this factory on a sound footing. The report of this committee is under consideration of the Bihar State Industrial Development Corporation.

(b) *High Tension Insulator Factory, Ranchi.*—This factory went into production in 1963. The installed capacity is 2400 tons of insulators per year. This factory has reached a level of 60 per cent production. It is running in loss, but the loss is being successively reduced. One main reason for loss in this factory is difficulty in getting hardware at economic rate. It has been decided that a malleable cast

iron foundry should be established as a part of this unit to cater to its need of hardware. Bihar State Industrial Development Corporation has also got a study made by NIDC for improving the working of this factory. The report is under consideration.

(c) *Electrical Equipments Factory,, Tatisilwai.*—This factory has been partially commissioned. It is designed to produce—

- (i) Transformer upto 300 KVA—1,62,000KVA per year (double shift).
- (ii) Industrial Motors upto 100 H.P.—6300 H.P. per year (double shift).
- (iii) L.T. Oil Circuit Breaker—300 per year (Single shift).
- (iv) Motor starter and cubical switch board for circuit breakers—3600 per year (Single shift).

The transformer section went into trial production in September, 1971. The other sections are under erection. During 1971-72 the factory produced 95 transformers and during the first-half of 1972 it produced 75 transformers. During 1971-72 the factory incurred a loss of Rs. 18.89 lakhs after providing for depreciation, interest and development rebate reserve.

It is expected that when this factory goes into full production it will run profitably.

(d) *Bihar Spun Silk Mill, Bhagalpur.*—The installed capacity will be to the extent of 3000 spindles for spun silk yarn and 420 spindles for noil silk yarn. The total project cost will be Rs. 1.53 lakhs. Trial run has started.

18. *Equity participation and Loan.*—The Bihar State Industrial Development Corporation has so far helped 10 private firms with equity participation and loan. The total amount invested is about Rs. 80 lakhs.

The fund allotted to this corporation and the utilisation of funds in different years of the Fourth Five-Year Plan are given in the following statement:—

Year.						Fund allotted and utilised. Rs. in lakhs.
1969-70	..	..	..	..	..	55.00
1970-71	..	..	..	..	..	57.25
1971-72	..	..	..	..	..	21.58
1972-73	..	..	..	..	..	79.67 Estimated.
1973-74	..	..	..	..	..	1,20.00 do.

The main difficulty in respect of functioning of this corporation and its full role in promotion of industries in the State has been that it has involved itself largely in management of some units directly. Consequently it has not been able to devote adequate time to general promotional activities. Accordingly now it is contemplated that separate companies will be formed out of these units and this corporation will be expected to concern itself only with promotional activities. So far it did not have adequate technical staff for this purpose. Now a separate technical wing has been sanctioned and recruitment is on the way.

19. *Industrial Areas.*—Industrial areas have been established in this State at Adityapur, Bokaro, Ranchi, Barauni and Patna. During this year new areas will come up at Dehri, Patrattu and Fatwah. Land is acquired in these areas and facilities of communication, water-supply and electricity are also provided. The industrialists are allotted plots for setting up their industrial units.

The allocation of this item during the different years of the Fourth Plan and utilisation of fund are mentioned in the following statement:—

Year.						Funds allotted and utilised. Rs. in lakhs.
1969-70	..	..	..	..	..	8.79
1970-71	..	..	..	..	..	10.67
1971-72	..	..	..	..	..	11.048
1972-73	..	..	..	..	..	65.176
1973-74	..	..	..	..	..	150.00

So far in these areas which have already come up, 1,412.98 acres of land has been developed, 768 plots have been allotted to units, 231 units have come into production and 199 units are under construction.

20. The main difficulty in respect of development of Industrial areas have been the following:—

- (i) Land acquisition proceeding has normally taken a long time. Besides, construction of roads and provision of water-supply which was being done through P.W.D. and P.H.E.D. has also taken time.
- (ii) Even when these facilities have been provided entrepreneurs have not come in large number to these areas.

With a view to removing these difficulties and for quick industrial growth of selected growth centres, the Government promulgated Industrial area Development Authority Ordinance in 1972. Already three authorities have been established at Ranchi, Adityapur and Bokaro and one more authority for Patna will be created shortly.

21. A construction cell is also being developed in the Industries Department for looking after small size construction in Industrial Areas and other places.

22. One important aspect of these areas is that they should be located at sites selected carefully. A team has been constituted in the Industries Department which will make out a list of places where Industrial Areas will be developed. Priority will also be worked out. The consideration will be facilities of communication and other infrastructure facilities which exist at present and which are expected to come up during the Fifth Five-Year Plan, availability of raw materials and labour, marketing facilities, etc.

23. *Development Wing and preparation of feasibility report.*—There was a plan provision of Rs. 20 lakhs. Till the end of 1972-73 the expenditure was Rs. 7.17 lakhs bulk of which was utilised during 1972-73. During 1973-74 a scheme for a Technical Wing in the Industries Department is likely to be implemented. It will cost approximately Rs. 10 lakhs in the first year.

During 1972-73 a number of feasibility reports were prepared with the help of Technical consultants in the country. During this year it is expected that more

such reports will be prepared. Offers have been asked for from various reputed consultancy firms in the country. These brief feasibility reports and project profiles will be duly advertised and entrepreneurs will be requested to choose some industries from amongst them for being set up by them in our industrial areas.

24. *Land Acquisition and Rehabilitation of Industrial Projects.*—In Bihar some large industrial projects have come up. The rehabilitation of persons uprooted from these sites is taken up by the State Government. There was a total plan provision of Rs. 10 lakhs under this head till 1972-73. Rs. 25.22 lakhs has already been spent. Till the end of Fourth Five-Year Plan the total expenditure is expected to be about Rs. 30 lakhs.

25. *Assistance to Bihar State Financial Corporation.*—Pihar State Financial Corporation has been progressively increasing its activities regarding financing small and medium industries. It has, however, not been depending on Government for Its funds; it has been getting the requisite fund from financial institutions. With its increased activities it will need a broader equity base in the Fifth Plan.

26. *Subsidy for Industrial Housing.*—This Scheme was not operated in the Fourth Five-Year plan.

27. *Summary of outlay on Large and Medium Industries.*—

(Rs. in crores)

Head of development.	Total plan outlay.
1. Assistance to the Bihar State Industrial Development Corporation ..	29.957
(a) Industries to be started by the Bihar State Industrial Development Corporation in Joint public sector including those in backward areas.	25.00
(b) Development of ancilliary industries by Bihar State Industrial Development Corporation.	0.25
(c) Financial assistance to Private entrepreneurs in the shape of equity shares, guarantee etc. by Bihar State Industrial Development Corporation.	3.00
(d) Modernisation, development and expansion of existing units ..	7.50
(e) Setting up of a planning and development wing in Bihar State Industrial Development Corporation.	0.207
2. Assistance to Bihar State Financial Corporation.. ..	1.00
3. Industrial Areas .. ..	6.00
4. Strengthening of Technical Development Wing Industrial Potential Survey and Project Reports.	1.00
5. Rehabilitation of large and Medium sick Mills .. ..	1.00
Total for large and Medium industries ..	38.957

28. *Schemes on Large Medium Industries.*—

## SCHEMES TO BE IMPLEMENTED BY THE BIHAR STATE INDUSTRIAL DEVELOPMENT CORPORATION.

(a) It is proposed to take up large number of projects through Bihar State Industrial Development Corporation during Fifth Five-Year Plan.

Some of the projects are in the advanced stage but in respect of others detailed project reports have yet to be prepared. This will be done in due course in the Fifth Five-Year Plan.

Preliminary feasibility studies have been made in respect of these projects by Engineers Indian N.I.D.C., Japanese Consulting Firm, Kulgion Corporation, etc. Detailed feasibility report in some of these cases are being prepared.

(i) *Nylon 6 Filament Yarn Project.*—The letter of intent for implementation of this project in this State has already been received from the Government of India. A decision is likely to be taken by the Corporation very soon in regard to selection of technical as well as financial collaborators.

(ii) *Graphite Electrodes Project.*—An application for registration in respect of this project has already been filed by the Corporation with the Government of India. A final decision about the selection of technical and financial collaborators of the project will be taken shortly. In the meantime application for F.I.B. approval has been filed.

The National Industrial Development Corporation Ltd. have prepared a techno-economic feasibility report on the project.

(iii) *Caprolactum project.*—The capital outlay on the project is tentatively assessed at Rs. 26.00 crores comprising of a share capital of Rs. 10.00 crores out of which the Corporation's share would be of the order of Rs. 2.6 crores. Caprolactum is a raw-material for manufacture of Nylon. The annual capacity is envisaged to be 20,000 M/T. The site for the Plant is at Bokaro. The raw-materials, Benzene is expected to be available in sufficient quantity from the Bokaro Steel Plant.

(iv) *Beer Plant.*—As the consumption of beer has been increasing all over the country, the Government of India has decided to allow setting up of at least one Beer Plant in each State. So far no such plant has been set up in Bihar. It is proposed to set up a Beer Plant of 55,000 hectalitres' annual capacity, the capital outlay on which has been tentatively kept at Rs. 200 lakhs, with a share capital of 85 lakhs. The share participation by the Corporation is estimated at Rs. 23 lakh. Barley and Malt will be available indigenously and adequate power will be available without any difficulty.

(v) *Bottle Manufacturing Plant.*—This project is contemplated for production of bottles required by the Beer Plant, referred to above and also for meeting the growing demand of bottles for the bottling plants for coco-cola and other soft drinks. The annual rated capacity of the Plant is envisaged to be 2400 M/T of bottles. The estimated cost of the project is tentatively kept at Rs. 24 lakhs comprising of a share capital of Rs. 82 lakhs. The investment of the Corporation will be of the order of Rs. 22 lakhs. Raw-material will be available in any quantities. Soda Ash will be obtained from Banarsh or proposed Soda Ash plant in the State. Labour and power will be available.

(vi) *Industrial Gases.*—Industrial gases are in short supply in the country. As assessed by the Industries Department, the Barauni area is suffering for want of

these gases. As such it is proposed to set up one such plant in North Bihar. The total capital outlay is tentatively kept at Rs. 1 crore, of which the share capital will be Rs. 35 lakhs and the Corporation's investment Rs. 9 lakhs, Raw-materials required for the plant is available indigenously.

(vii) *Soda Ash*.—A Plant is envisaged to be set up at an estimated cost of Rs. 900 lakhs for manufacture of 64,000 M/T of Soda Ash and 64,000 M/T of Ammonium Chloride per annum. The share capital required will be Rs. 285 lakhs of which the participation by the Corporation will be Rs. 75 lakhs. Raw-materials will be obtained from the State and the States. Its product will be consumed at Aluminium Plant, Muri, Paper Plants, Soap units and Glass industries.

(viii) *Particle Board*.—The demand of particle board is gradually increasing in the country for various uses. Basic raw-materials for this industry are forest waste wood or jute stocks. The capital outlay on the proposed particle Board plant with an annual capacity to produce 6,000 M/T of Particle Board is tentatively estimated at Rs. 180 lakhs. The share capital will be Rs. 52 lakhs of which the Corporation's share will be Rs. 20 lakhs. Plants of forest wood will be available from the forests. Power will also be available.

(ix) *Cement Factories*.—Bihar with rich deposits of lime stone and coal is placed to make cement.

A team set up by the State Government in 1970 indicated the unutilised excess resource of about 180 million tonnes of lime stone in Rohtas District. Besides a reserve of about 30 Million tonnes has been found in another region in Rohtas District. The reserves used the lease of Bokaro Steel Project also have some cement grade lime stone. A viable 5 lakhs tonnes per year unit will require 8 lakhs tonnes of lime stone per year. About 40 years requirement will come to above 3 crore tonnes of lime stone. Hence with the so far untapped lime stone reserve about 7 to 8 cement factories are possible here.

There is a proposal to set up four cement plants of 5 lakhs tonnes capacity each in joint sector. The outlay on each plant will be Rs. 1,800 crores approximate, and the Bihar State Industrial Development Corporation will have to invest Rs. 1.5 crores in each plants. The total requirement for setting up 4 cement plants will be Rs. 6.00 crore by Bihar State Industrial Development Corporation. A feasibility study of cement plants has already been prepared by M/S Kuljian Corporation Ltd. some years ago.

(x) *Paper Factory*.—There is possibility of setting up new paper & pulp plant in the State based on hard wood and bamboo. Hard wood is abundantly available in the forest. A paper plant of the capacity of 100 tons per day will be established. It will cost Rs. 15.00 crores out of which the share participation of the Bihar State Industrial Development Corporation will be Rs. 1.30 crores.

A feasibility study for paper plants in Bihar has been made by a Japanese consultancy firm. With the adequate bamboo reserve and hard wood available in the State at least one paper factory can be definitely established.

(xi) *Jute Factory*.—During the Fifth Five-Year Plan one Jute Factory of the 10,000 tons annual capacity will be set up in Bihar. India Government has already agreed regarding establishment of such a factory. Capital investment will be Rs. 3.00 crores and it will be 100 per cent. Public Sector undertakings. Bihar State Industrial Development Corporation will have to invest Rs. 45.00 lakhs and the rest amount will be available from institutional finance. Eastern Bihar is an important Jute growing centre and the annual production of the Jute growing is around 3.5 lakhs tonnes.



(xii) *Aluminium Plant*.—Although Bihar is the leading producer of Bauxite, it has not cultivated use of this mineral. Therefore a big size aluminium factory is proposed to be set up in Bihar. The capital cost will be Rs. 80.00 crores. The share of Bihar State Industrial Development Corporation will be Rs. 5.50 crores.

Several other projects have also to be taken up in the Fifth Five-Year Plan. The feasibility report in all these cases has not been prepared. It will be prepared during the plan period and the project will be taken up.

(xiii) *Polyster Fibre*.—There is only one unit in India existing at present and four units with capacity of 6,100 tonnes a year are under implementation according to the planning group of petriolium. The demand in 1973-74 will be 52,000 tonnes in a year ; Therefore, one plant at the cost of 25 crores is proposed in Bihar, having 18,000 tonnes per year production capacity. Raw-material will be obtained from Petro-chemical Complex Barauni and Gujarat. Power will be easily available and it will employ 750 persons. Share capital will be Rs. 9 crores and the share of Bihar State Industrial Development Corporation will be 2.05 crores.

(xiv) *Oetergent Alkylate*.—Oeterjent Alkylate have a market in all over the country. The total demand in the country is estimated to be 40 thousand tonnes in 1978-79. There is no production in the country. It is proposed to instal a factory having installed capacity of 40,000 tonnes per year at the cost of Rs. 9 crores. The share capital components will be 3 crores and Bihar State Industrial Development Corporation will have to invest Rs. 75 lakhs.

(xv) *Coal based complex*.—Bihar is the main producer of coal of different grade in the country. A coal based industrial complex in Jharia area consisting of production of coal area pig iron will be most economical. There is sufficient demand for all these products. To meet the increased demand of the country it is proposed to establish a coal based industrial complex near Jharia at an estimated cost of Rs. 110.00 crores. To promote such a complex Bihar State Industrial Development Corporation will invest Rs. 13 crores as share participation.

(xvi) *Cryolite Project*.—Cryolite has a big demand in the country, it is used as medium during the process of electrolytic reduction of Aluminium into Aluminium metal. These are being imported at present. Therefore, there is big scope for a unit at Sindri. The Capital investment in the project will be Rs. 2.00 crores, Share Capital will be Rs. 60.00 lakhs and share participation of B.S.I.D.C. Rs. 16 lakhs.

(xvii) *Other Projects*.—Over and above these projects, it is proposed to establish ;

1. Antifriction Bearing.
2. Sponge Iron Project.
3. Carbon Black.
4. Insulation paper.
5. Pharmaceuticals (Salicylic, Aspirin, Phenacetin, P. A. S. & Salt).

Preliminary investigation in respect of these projects have not been done. These projects should be investigated incourse of plan period. It is estimated to cost Rs. 67.45 crores approximately. Share Capital Componants will be Rs. 24 crores and share participation of Bihar State Industrial Development Corporation will be of Rs. 7 crores approximately.

The following is the summary of the proposals given above :—

(Rs. in crores.)

Serial no.	Name of the Scheme.	Total capital outlay.	Total share capital.	Share participation by B.S.I.D.C.	Employment no. of persons.
1	2	3	4	5	6
1	Nylon Filament Project	15.86	5.40	1.40	400
2	Graphite Electrodes Project	9.40	3.50	0.90	700
3	Caprolactum	26.00	10.00	2.60	1,500
4	Beer Plant	2.00	0.85	0.23	200
5	Bottle Mafg. Plant	2.45	0.82	0.22	250
6	Industrial Gases	1.00	0.35	0.09	125
7	Soda Ashes	9.00	2.85	0.75	1,500
8	Particle Board	1.80	0.55	0.20	230
9	Cement	72.00	24.00	6.00	4,000
10	Paper Factory	15.00	5.00	1.40	1,000
11	Jute Factory	3.00	..	0.35	500
12	Aluminium Plant	80.00	26.50	6.50	1,000
13	Polyster Staple Fibre	25.00	9.00	2.50	750
14	Detergent Alkylate	9.00	3.00	0.75	100
15	Coal based complex	110.00	36.00	13.00	5,000
16	Cryolite Project	2.00	0.60	0.16	200
17	Other Projects—				
	(a) Antifriction Bearings	67.49	24.00	7.00	2,000
	(b) Sponge Iron Project				
	(c) Carbon Black				
	(d) Insulation Paper.				
	(e) Pharmaceuticals(Salicylic, Aspirin, Phenacetin, P.A.S. and Salt).				
	<b>Total</b>	<b>451.00</b>	<b>152.42</b>	<b>44.05</b>	<b>19,555</b>

If we will make an allowance of about preference share which may be 20 per cent of share capital. The total equity needed will be about 150 crores and the share of B.S.I.D.C. will be Rs. 44 crores. Due to constraint of finance it is proposed to allocate Rs. 25 crores only for these schemes.

1(b) *Development of Ancillary Industries by Bihar State Industrial Development Corporation Limited.*—It is proposed to establish two Industrial Estates, one in the campus of the High Tension Insulator Factory, Namkum (Ranchi) and the other in the campus of Electric Equipment Factory, Tatisilwai, Ranchi. It is proposed to set up such units as would help augment the overall production in the existing High Tension Insulator Factory and Electric Equipment Factory at Namkum and Tatisilwai. A provision of Rs. 5 lakh per year totalling Rs. 25 lakhs in the entire Fifth Five Year Plan is proposed.

1(c) *Financial Assistance to Private Entrepreneurs.*—One of the important functions of the Corporation towards development of industries in the State has been to grant financial assistance to private industrial entrepreneurs mainly by way of underwriting of direct subscription to the share capital of the applicant companies. At present the Corporation has in hand applications for financial assistance to the extent of Rs. 45 lakhs. Now with the increased tempo it is expected that application for financial assistance will be more in future. It is therefore, proposed to keep a provision of Rs. 3 crores, in the Fifth Five-Year Plan towards grant of financial assistance to private industrial Entrepreneurs.

1(d) *Modernisation and Development and Expansion of the Existing units under the direct management of Bihar State Industrial Development Corporation Limited—(i) High Tension Insulator Factory.*—The existing capacity of the High Tension Insulator Factory is to produce 400 M/T of insulator per annum. The Factory by producing more than 200 M/T of insulators per month in the last quarter of 1971-72 has proved its capacity to achieve its annual rated capacity. Due to keen competition in market, it has been calculated that the factory is not likely to make appreciable profit, even by achieving its present production capacity. As such, in order to make the factory an economically viable unit the Corporation should undertake its expansion. It is, therefore, felt desirable to take up expansion of the High Tension Insulator Factory during the Fifth Five-Year Plan to increase its production capacity from 2400 M/T to 6000 M/T per annum. According to a rough estimate the expansion will involve a capital outlay of Rs. 1.5 crores.

The expansion of the High Tension Insulator Factory will necessitate simultaneous expansion of the Malleable Cast Iron Project, construction of which has been taken up. The capital outlay on expansion is estimated at Rs. 50 lakhs. Total expenditure on this scheme will be of the order of 2 crores. Hence a provision of Rs. 2.00 crores is proposed for this scheme for Fifth Plan period.

(ii) *Bihar State Superphosphate Factory.*—The main reason for the Bihar State Superphosphate Factory running in loss is its incapability to produce superphosphate upto its installed capacity because of the basic imbalance between the capacity of the Sulphuric Acid Plant and that of the Superphosphate Plant. With the Acid produced at the existing Sulphuric Acid Plant, the Factory can produce only 18000 M/T of Superphosphate against its capacity to produce 54000 to 56000 M/T. Purchase of Acid from outside sources to meet the gap has proved most-uneconomical. How to utilise the full capacity of the Superphosphate Plant is under examination.

This may involve expansion of Sulphuric Acid Plant. The capital outlay on the expansion is estimated at Rs. 75 lakhs.

(iii) *Electric Equipment Factory*.—The Electric Equipment Factory was originally estimated to cost Rs. 224.92 lakhs for which it was sanctioned by the State Government in June, 1967. It is now felt that the estimate will need revision and a further sum of Rs. 74.91 lakh will be required to complete the project in all respects.

The existing Electric Equipment Factory designed to manufacture transformers, motors and switch gears is not equipped with any Foundry for meeting the Factory requirement of hardware components. As the factory has been facing difficulties in procurement of hardware components at economic prices it is proposed to set up a Foundry for the purpose in the campus of Electric Equipment Factory at an estimated cost of about Rs. 50 lakhs.

The Corporation has also a scheme for equipping the said factory with a repair workshop in the factory for undertaking repair of transformers of Bihar State Electricity Board on a large scale basis. This will also involve an expenditure of about Rs. 25 lakhs.

Thus for expansion and modernisation of the existing units an amount of Rs. 3.50 crores is required. It is proposed that during the Fifth Five-Year Plan an amount of Rs. 15.50 crores will be allocated for these purpose. The rest of the amount will be met in the next plan or with the help of financial institutions, if possible.

1(e) *Setting of a Planning and Development wing of the Bihar State Industrial Development Corporation*.—One of the serious handicaps in the existing set up of the Corporation is complete lack of technical expertise. As a result it is unable to undertake techno-economic feasibility studies in connection with investment proposals or conduct from time to time surveys for indentifying the industrial potential of the state. Thus the Corporation is not equipped to advise entrepreneurs on the industrial potentialities of any particular area or feasibility of any project. The Board of Directors of the Corporation has, therefore, sanctioned the setting up of a Planning and Development Wing in the Corporation at a total non-recurring expenditure of Rs. 0.70 lakh and recurring expenditure of Rs.. 4 lakh per year.

2. **ASSISTANCE TO THE BIHAR STATE FINANCIAL CORPORATION**.—Bihar State Financial Corporation is financing the private Sector projects.

Till the end of 1971-72, the total amount of loan sanctioned by it was Rs. 11.10 crores of which Rs. 2.80 crores was sanctioned in 1971-72 and Rs. 1.12 crore in 1970-71. It will thus, appear that the volume of transaction is growing at a faster rate. It has earned a net profit of Rs. 13.0 lakhs during 1971-72 and Rs. 11.57 lakhs during 1970-71. It has been paying a dividend of Rs. 1.40 lakh to Government annually for a long term. The total amount of dividend paid to State Government till the end of 1971-72 being Rs. 21.76 lakhs.

The share capital issued and subscribed is Rs. 1.00 crore of which Rs. 40.00 lakhs is subscribed by State Government during the Fifth Five-Year Plan, the Corporation has target to advance loan to private sector projects to the tune of Rs. 32.00

crores. Taking into account, it is necessary to raise the loan capital of the corporation by raising its share capital.

Bihar State Financial Corporation has proposed Rs. 1.5 crore as loan from the State Government and Rs. 1.00 crore as share capital. It is proposed that an amount of Rs. 1.00 crore should be earmarked towards the share capital.

3. INDUSTRIAL AREAS (i) *Supply and Banking Facilities, etc.*—In Industrial Area land is acquired and developed and plots are allotted to industrialists for starting industries near big industrial projects like Tisco, Telco, BSL, HEC., IOC. Fertiliser Factory, etc. These Industrial Areas help in promoting ancilliary industries and auxiliary industries based on requirement, by products and end products of these large industrial projects. The Industrial Areas at other places are meant for other types of industries which can be developed on the basis of raw materials available in this State particularly in these regions as also on the consumer demand in the State.

So far Industrial Areas have been developed at Adityapur, Ranchi, Bokaro and Barauni for development of ancillary industries. Development of Area at Sindri with the help of Fertiliser Corporation of India is also in advanced stage. There is also a Standing Committee for development of ancillary complex at Dalmianagar with the help of M/s. Rohtas Industries and other neighbouring industries. As a result this sector has witnessed good progress during the last two years at Adityapur, Ranchi and Bokaro and Sindri.

The main difficulty has been due to delays in implementation of the construction programme of roads, sewerage and drainage, water supply arrangements, etc. and also due to time consuming formalities of executing lease deed in favour of allottee units. The State Government has, however, found the solution to remove the delays at least in respect of Adityapur, Ranchi and Bokaro areas where autonomous development Authorities are being created for development of these areas. The difficulty in regard to the other Areas remains still unsolved. These will also be slowly covered by such Authorities.

As regards the level of technology achieved in the present development, it will have to be admitted that the present units do not represent very sophisticated types of ancillary industries. The technological achievement is, therefore, at comparatively lower level and this has to be improved with special efforts during the Fifth Five-Year Plan.

There is immense scope for developing small scale sophisticated ancillary industries around the large scale industries in this State.

Besides development of Ancillary Industries in Industrial Area, the demand for developed plots from entrepreneurs is increasing in almost all parts of State. It, therefore, appears necessary to make provision for industrial areas in most of the remaining districts of the State under the Fifth Five-Year Plan.

On the basis of the points mentioned in foregoing paragraphs the following schemes are proposed during the Fifth Plan.

(ii) *Spill over Project.*—The development work in the Industrial Areas at Adityapur, Bokaro and Barauni which is in progress will remain incomplete in some portion of the land. The expenditure will therefore be incurred during the Fifth Plan period. The spill over expenditure for these three areas is estimated to be Rs. 54 lacs. Besides this the roads which have already been constructed will have to be improved. The estimated cost of improvement of roads in industrial Areas would be Rs. 10 lacs.

The total spill over expenditure would therefore be Rs. 64 lacs. Details are indicated below :—

**Spill over expenditure including improvement of road**

(Rs. in lakhs)

—————	Land	P.W.D.	P.H.E.D.	Establishment.	Total
1	2	3	4	5	
(a) Adityapur ..	5	5.0	3.0	Nil	13
Bokaro ..	20	3.0	10.0	Nil	33
Barauni ..	Nil	5.0	3.0	..	8.0
Improvement of roads of Industrial Area.	..	10	..	..	10
	25	23.0	16.0	Nil	84

(iii) *New Project.—Adityapur.*—In view of pressing demand from the entrepreneurs it has been decided to acquire 2,000 acres of land for Industrial plots and other connected facilities. This 2,000 acres of land will be developed during the Fifth Year Plan period at an estimated cost of Rs. 220 lacs.

*Bokaro.*—During the Fifth Plan period additional 2,000 acres of land will be developed at an estimated cost of Rs. 175 lacs.

*Ranchi.*—500 acres of land will be acquired for development during the Fifth Plan at an estimated cost of Rs. 80 lacs.

*Bokaro.*—100 acres of land will be acquired which will be developed at an estimated cost of Rs. 26 lacs.

*Sindri.*—During the Second phase 100 acres of land will be developed at an estimated cost of Rs. 18 lacs.

*Patratu.*—400 acres of land will be developed at an estimated cost of Rs. 40 lakhs.

*Barauni.*—173 acres of land will be developed at an estimated cost of Rs. 25 lacs.

*Fatwah.*—300 acres of land will be developed at an estimated cost of Rs. 80 lacs.

*Dehri.*—100 acres of land will be developed at an estimated cost of Rs. 17 lacs.

*Getalsud.*—100 acres of land will be developed at an estimated cost of Rs. 30 lacs.

(iv) *Establishment of Industrial Area in 29 districts.*—It is proposed to cover 29 districts with Industrial Areas. It is proposed to acquire 200 acres in each district. Therefore 5,800 acres will be developed at an estimated cost of Rs. 1,143 lacs.

(v) *Creation of Ancilliary Cell at Headquarters.*—At the project level necessary administrative and Technical machinery have been created but at the Headquarter such machinery practically does not exist. Sometime back it was accepted in principle to

create an Ancillary Cell at State Headquarter but the same has not been implemented so far. It is, therefore, proposed to create an Ancillary Cell at Headquarters at an estimated cost of Rs. 5 lacs.

(vi) *Strengthening of Construction Cell and Revival of Planning Cell.*—The existing work of construction is being done by the Public Works Department. The slow progress in the development of Ancillary Industrial Area is due to the delay by P.W.D.

During the Third Plan period a construction and Planning Cell was created but the same was partially implemented. It is proposed to revise the earlier sanctioned scheme of construction and planning cell at an estimated cost of Rs. 5 lacs.

(vii) The requirement for Industrial Area during the Fifth Plan period will be of the order of Rs. 1,854 lakhs. This includes the provision for grants and subsidies in respect of development of land, provision of electricity, water facilities, roads and other infrastructure amenities in order to promote industrialisation and employment in backward areas.

Break up of the proposal is indicated below :—

**Industrial Area Development at Selected Places.**

(Rs. in lakhs)

New Project	Area (acres)	Land	P.W.D.	P.H.E.D.	Establish- ment.	Total
1	2	3	4	5	6	7
	Acres.					
1. Adityapur ..	2,000	60.0	80.0	80.0	Nil	220.0
2. Bokaro ..	2,000	15.0	80.0	80.0	Nil	175.0
3. Ranchi ..	500	40.0	20.0	20.0	Nil	80.0
4. Kokar ..	1,000	12.0	5.0	4.0	5.00	26.0
5. Sindri ..	100	3.0	5.0	10.0	Nil	18.0
6. Patratu ..	400	8.0	15.0	12.0	5.0	40.0
7. Barauni ..	173	Nil	10.0	10.0	5.0	25.0
8. Fatwah ..	300	40.0	20.0	15.0	5.00	80.0
9. Dehri ..	100	2.0	5.0	5.0	5.0	17.0
10. Getalsud ..	100	5.0	5.0	5.0	5.0	20.0
11. Establishment of Industrial Area in 29 districts.	5,800	518.00	240.0	240.0	145.0	1,143.0
12. Creation of Ancillary Cell at State Headquarters.	..	..	..	..	5.0	5.0
13. Strengthening of construction cell and Revival of planning cell.	..	..	..	..	5.0	5.0
	11,573	703.00	485.0	481.0	185.0	1,854

The total expenditure proposed is Rs. 0.64+Rs. 18.54=Rs. 19.18 crores.

These areas will have both small industries and large and medium industries.

Out of this amount it is proposed to allocate Rs. 6.00 crores in the Fifth plan in the Large and Medium industries sector another sum of Rs. 6.00 crores will be allocated in the Small Industries Sector. The scheme will be continuing in the rest Plan and the balance of the expenditure will be projected into the next plan.

4. *Establishment of a Technical Development wing and industrial potential Survey and Project Reports.*—A detailed scheme for creation of a Directorate of Technical Development in the State, on the line of the Directorate-General of Technical Development (DGTD), Government of India has been prepared and is under active consideration of the State Government. The scheme envisages non-recurring expenditure of Rs. 5,00,000 and recurring expenditure of Rs. 4,00,000 to start with. It is expected that the scheme will be approved by the State Government and will come in force from the year 1973-74. In the Fifth Five-Year Plan this Directorate may be further strengthened.

During the Fifth Five-Year Plan it is proposed to undertake campaigns for conducting surveys in specific industrial fields to provide guide lines for preparation of scheme for intending entrepreneurs for setting up industries. There is also proposal to subsidize the cost of preparation of feasibility reports besides making feasibility reports by the Department itself, which will be required by the entrepreneurs for setting up industries in this State. A sum of about Rs. 8.25 lakhs is expected to be required for this purpose every year.

Financial implication of the above two proposals during the Fifth Five-Year Plan will be as follows :—

A. Cost of preparation of feasibility report and survey of industrial potentiality at the rate of Rs. 15.00 lakhs per year.	Total cost during the Fifth Five-Year Plan	Rs. 75.00 lakhs
B. Director of Technical Development—		
Non-recurring .. .. .	Rs. 5,00,000	
Recurring during the Fifth Plan ..	Rs. 20,00,000	Rs. 25.00 lakhs
Total —(A and B) ..	Rs. 25,00,000	Rs. 1 crore

#### 5. Assistance and Rehabilitation of Large and Medium Sick Mills

23 sick mills including 7 sugar mills have been identified so far. 4 such units *viz.*, Assam Silliminite Ltd., Katihar Jute Mills, Ashoka Paper Mills and Japla Cement Factory have already been commissioned. Action has been taken to revitalise the above 5 sick sugar mills and it is expected that they would now go into production with the commencement of the new season. Details of medium and large sick units are being collected. It is most likely that there may be more such units which are languishing for want of finances and allied difficulties. Some of these sick units which could be identified so far have been given loans in shape of cash, share capital and equity shares. Different financial institutions like I.D.B.I., Industrial Finance Corporation and Commercial Banks have also advanced loans to these sick mills from time to time. In order to run these units on proper lines, action has to



be taken to sanction loans and to safeguard the interest of financial institutions. Difficulties have been felt by the management of the sick units rehabilitated so far to pay off the accumulated arrear dues of Sales taxes, electric consumption bills and such other taxes for which it is neither feasible for the commercial institutions to finance the sick mills nor has it been possible for the management to arrange for funds. It is, therefore, essential for the State Government to come forward with adequate finance to meet such expenses. They require money for repairs of the machineries, repair of the installations, modernisation of the machinery and expansion of the mills. Their demand can be met with only when the State Government also meet the requirement for a few items not covered by the financial institutions. The Government have announced several incentives from time to time which are applicable to these units also for which plan provision is very Meagre. These sick units have vast employment opportunities and when commissioned they will provide employment to a large number of persons who have been thrown out of employment. It is, therefore, proposed to give some financial help to these sick mills for their proper working. A provision of Rupees 1.00 crores is, therefore, proposed during the Fifth Five-Year Plan for the above purpose.

29. *Impact of the Project and phasing of expenditure.*—(a) The main investment through BSIDC is in three ways.—

- (i) Direct investment in equity in joint sector projects .. Rs. 25.00 crores
- (ii) Financial assistance to private industries in the form of equity. Rs. 3.00 crores
- (iii) Direct investment in the units run by BSIDC .. Rs. 1.50 crores

(b) The pattern of joint sector is that slightly more than 25 per cent of the equity will be contributed by BSIDC and slightly less than 25 per cent by private entrepreneurs. The rest of the equity will be taken by the public and financial institutions. The preference share will normally be about 20 per cent of the equity. All this will form the share capital base. It is expected that keeping the debt equity ratio as 2:1 the financial institutions will provide loan to the extent of twice the amount of the share capital.

The equity participation of BSIDC in the joint sector to the extent of Rs. 25.00 crores will thus result in the total equity investment in the projects of about Rs. 100 crores of which near about Rs. 25.00 crores will come from private financial collaborators and the rest from the financial institutions and public. The preference share will come to about 20 crores which will also be partly contributed by financial institutions and partly by public. It can be presumed that in the preference share and in the 50 per cent of the share which is left out of the purview of the BSIDC and private financial collaborators, the contribution of the financial institutions and the public will be 50 per cent each. The total share capital in these projects will be about Rs. 120 crores. The financial institutions will give loan of about Rs. 240 crores against this share capital. Thus the total investment in these projects will be Rs. 360 crores. The investment pattern will be as follows:—

BSIDC .. .. .	Rs. 25.00 crores
Public .. .. .	Rs. 60.00 crores
Financial Institutions .. .. .	Rs. 275.00 crores

(c) With the equity support of Rs. 3 crores by the BSIDC in private industries it is expected that at least Rs. 9 crores of equity will come from the promoters.

Thus the total contribution of BSIDC and main promoters will be Rs. 12 crores. Based on the pattern that the financial institutions may insist on 15 per cent initial contribution it is expected that with this investment the projects that can be taken will have the total value of Rs. 80 crores. This amount will again be distributed as follows:—

BSIDC .. .. .	Rs. 3 crores.
Private Investment .. .. .	Rs. 9 crores.
Financial Institutions .. .. .	Rs. 68 crores.

(d) BSIDC will make a direct investment of Rs. 2 crores in its project. Taking all the three items together the total investment generated by these schemes of BSIDC will thus be about Rs. 442 crores.

Considering that employment in large and medium industries as also in bigger small industries will be at the rate of Rs. 25,000 per employee, this investment will generate industrial employment to the extent of about 1.77 lakhs directly. Besides there will be employment in serving units, commercial units and in services which may be reasonably presumed reasonably to be about 1,00,000. Thus the total employment on this account may be around 2.77 lakhs.

(e) The investment in BSFC. and in industrial areas will be supporting these main schemes of BSIDC. In as much as these will be providing loan facilities and in infrastructure facilities to the industries which expect to come up with the schemes of the BSIDC. It is expected that the industrial area which is envisaged to be developed will be able to provide industrial sites to the industries which may thus come up.

(f) *Phasing of Investment.*—As preliminary activities for the scheme to be taken up in the Fifth Five-Year Plan have already been started. It is expected that right from the first year of the Fifth Five-Year Plan there may be proportionate utilisation of funds. However making some allowance for a time lag in initial building up of tempo in each of the first two years expenditure may be to the extent of 15 per cent of the fifth plan allocation. The rest of the expenditure i.e., 70 per cent will uniformly be spread over the next years.

30. *Allocation for Chotanagpur and Santhal Parganas (Tribal belt).*—In the Large and Medium sector total investment of Rs. 39 crores has been proposed. Out of this Rs. 30 crores is meant for different categories of the schemes of the BSIDC. Chotanagpur and Santhal Parganas area is the main mineral belt. Chotanagpur is already developing into an Industrial belt and in the Fifth Five-Year Plan most of the new industries are likely to be attracted in this area. Out of total provision of Rs. 30 crores nearly 20 crores is expected to be spent in the Adivasi belt in one form or another. There is provision of Rs. 6 crores for Industrial Area. Industrial Areas have already been established at Ranchi, Adityapur, Bokaro and new areas will be developed at Sindri, Patratu, Getalsud. It is also proposed to have one Industrial area at each district headquarter and thereby all the districts in Ranchi and Santhal Parganas area will have one Industrial area in the Fifth Five-Year Plan. Out of provision of Rs. 6 crores major expenditure will be made in the Chotanagpur and Santhal Parganas area. There is provision of Rs. 1 crore for sick and closed mills. Since most of the Industrial units are situated in Chotanagpur belt, good portion of the expenditure will automatically be made here.

## SMALL AND VILLAGE INDUSTRIES

31. *Introductory*.—Large and medium industries cover only a few centres in the State. Thus for spread of industries in the vast State it is necessary to encourage small industries and village industries. Such small size units will utilise the raw materials available in various parts of the State. The skill of the traditional craftsmen can also be employed through these tiny industrial units. Besides this State has a vast population and some of its areas are very densely populated. Therefore there is a great possibility of starting consumer industries at various consumers centres all around the State. Apart from these factors small scale and village industries have a further significance because they provide a bigger opportunity for employment. These are generally labour intensive industries where technology is generally not highly developed. The capital labour ratio in small and village industries is rather small. On all these considerations small industries have to play a vital role in the development of industries in the State. During the Fifth Five-Year Plan it is contemplated that Rs. 30.65 crores would be allocated for small and village industries.

32. *Appraisal of the Fourth Plan Programmes*.—Under the State Fourth Five-Year Plan for Village and Small Industries, there is a provision of Rs. 700.00 lakhs. Out of this provision, Rs. 94.65 lakhs, viz., Rs. 60.70 lakhs for Handloom Schemes and Rs. 33.95 lakhs for schemes of Industrial Co-operatives, were provided for schemes, concerning Co-operative Department. The remaining amount of Rs. 605.35 lakhs were provided for schemes concerning Industries Department. Against this provision the estimated expenditure till the end of March, 1973 amounts to Rs. 395.826 lakhs. There is a provision of Rs. 255.00 lakhs under this head for the year 1973-74. The total anticipated expenditure till the end of the Fourth Plan period, therefore, is estimated at Rs. 645.826 lakhs. The above analysis will show that the amount provided in the Fourth Five-Year Plan would be fully utilised. Brief descriptions under various groups of schemes is given below:—

(a) *Industrial Estates and areas.*

There is a provision of Rs. 98.00 lakhs for Industrial areas and Estates under the State Fourth Five-Year Plan. It is estimated that expenditure till the end of March, 1973 under this head amounts to Rs. 38.932 lakhs. A provision of Rs. 96.00 lakhs has been made for 1973-74. Total anticipated expenditure till the end of March, 1974 thus comes to Rs. 134.932 lakhs.

Under this programme, Industrial Areas have been established at Ranchi, Bokaro, Barauni, Adityapur and Patna. In these Industrial Areas, developed plots of land, with facilities of transport and communication, power and water-supply are being provided to industrial entrepreneurs. Additional Industrial Areas are being set up at Fatwah (Patna), Patratu (Hazaribagh), Darbhanga, Sindri, Dehri and Hajipur. The establishment of Industrial Area at Fatwah is in progress. For Industrial Area at Darbhanga existing land is proposed to be distributed after providing communication and water-supply facilities. For Dehri, Hajipur and Sindri, land has to be acquired and developed. In order to have efficiency in the administration of these areas, State Government have made institutional changes and Industrial Area Development Authorities have been established at Ranchi, Bokaro and Adityapur.

Besides the development of Industrial Areas, the State Government has also set up Industrial Estates at different places in Bihar. In these Industrial Estates, developed plots of land with built in sheds and other facilities are provided to Industrial Entrepreneurs. During the Fourth Plan period some spill-over expenditure over the Industrial Estates set up during the Third Plan period is being incurred. In addition vacant land available in the Industrial Estates at Bhagalpur, Muzaffarpur, Purnea and Daltonganj are proposed to be developed. Besides the above a functional Industrial Estate is being constructed at Monghyr.

*(b) Small Scale Industries.*

One of the most important schemes for development of small-scale industries is that of financial assistance under the State Aid to Industries Act. By the end of the year 1972-73 a sum of about Rs. 133.73 lakhs is estimated to have been distributed among the entrepreneurs of the State. It is expected that Rs. 45.00 lakhs would be distributed during the current financial year. Total anticipated expenditure under this scheme, therefore, comes to Rs. 178.73 lakhs. Under this scheme cash loan and machineries on hire purchase terms are being provided to the intending entrepreneurs, which serves as the greatest incentive to those who are handicapped on account of financial difficulties.

Another important scheme under this head is the assistance to Bihar State Small Industries Corporation. The Corporation have been entrusted with the task of lifting raw materials and distributing them among entrepreneurs. Some State owned industrial units, for instance, Sales Emporia, Foot-wear units, Tanneries, Knitting centres, Common Service Facility Centre, Tiles Factory, Pottery Development Centre, Handicrafts and Carpentry units are also functioning under this Corporation. For these works about Rs. 121.84 lakhs are estimated to have been given to the Corporation till the end of March, 1973. A sum of Rs. 50.00 lakhs is expected to be given to it during the year 1973-74. Thus the total amount of assistance anticipated to be provided to the Corporation during Fourth Plan period amounts to Rs. 171.84 lakhs.

Besides the above some schemes of technical assistance, training etc. are also being implemented under this group. Total provision for development of small scale Industries under the Fourth Five-Year Plan excluding the schemes of Industrial Co-operatives to be implemented by the Co-operative Department stands at Rs. 351.05 lakhs. Against this provision the estimated expenditure till the end of March, 1973 is about Rs. 291.534 lakhs. For 1973-74 there is a provision of Rs. 112.14 lakhs, the entire amount of which is expected to be utilised during the current year. It is therefore expected that the progress of expenditure under this group will by far exceed the Plan provision.

*(c) Khadi and Village Industries.*

Development of Khadi and Village Industries in the State is done mainly by the Khadi and Village Industries Commission through the Bihar State Khadi and Village Industries Board. Funds for these industries are available from the Central Plan through the above Commission. Provision in the State Plan is meant for meeting the establishment expenses over additional staff of the State Khadi and Village Industries Board and for certain non pattern schemes not coming under the perview of the Khadi and Village Industries Commission. A provision of Rs. 5.00 lakhs was made in the State Fourth Five-Year Plan for the above schemes. The entire amount is likely to be utilised by the end of the current financial year.

*(d) Handloom.*

The bulk of schemes under this group is being implemented by Co-operative Department. A few schemes are, however, under implementation of the Industries Department. Important among those are the Re-organisation of the Bihar Cottage Industries, Gulzarbagh, a wool processing centre at Obra, a screen printing centre in the Biharsharif Central Processing Plant and a ready made garment manufacturing centre. The Bihar Cottage Industries is being reorganised and the rest of the schemes are expected to be taken up during the current financial year. Against plan provision of Rs. 19.30 lakhs, Rs. 9.678 lakhs has already been spent till 1972-73. Total anticipated expenditure is Rs. 15.876 lakhs.

*(e) Powerloom.*

For improvement in powerloom products, a sizing plant is proposed to be set up in Darbhanga Dyeing and Finishing Plant. There was plan provision of Rs. 30 lakhs, Rs. 3.32 lakhs has already been spent till 1972-73 and during this year Rs. 4.10 lakhs is likely to be spent. Total expenditure will be Rs. 7.42 lakhs.

**(f) Handicrafts.**

Handicrafts of this State are quite prominent. Various measures of assistance undertaken under the programme have been attended with a fair degree of success. The Institute of Industrial Design at Digha, Patna is imparting training to traditional artisans. It is evolving new designs in adoption of traditional skill to the manufacture of decorative articles and utility pieces according to modern taste. A number of procurement centres are being run by the State Government. As a result, some of the fancy Handicrafts product are in a great demand in foreign countries.

Against plan provision of Rs. 41 lakhs, Rs. 15.439 lakhs was spent till 1972-73. During this year Rs. 13.500 lakhs will be spent raising the total expenditure to Rs. 28.939 lakhs.

**(g) Sericulture**

Sericulture has a special place in the sphere of industries in Bihar. About two-third of Tassar in the country is produced by this State, and about one lakh persons are engaged in various stages of this Industry. This industry provides large scale employment to adivasi population of Chhotanagpur and Santhal Parganas. The State Government helps the rearers of silk worms with disease free layings free of cost. The rearers, spinners, and weavers are also given training in their jobs. As a result of these and other assistance Sericulture Industry in Bihar has made a significant improvement in exporting Tassar textiles on a large scale basis.

Against plan provision of Rs. 63 lakhs Rs. 31.391 lakhs was spent till 1972-73. During this year Rs. 18.26 lakhs is likely to be spent. Total expenditure over this scheme will be Rs. 49.651 lakhs.

**33. Summary of Village and Small Industries.**

Head of development.	Rs. in lakhs.
1. Establishment of quality Testing Laboratories at Divisional Headquarters.	5.00
2. Grants in aid for crafts training .. .. .	10.00
3. Financial Assistance under State Aid to Industries Act. ..	2,50.00
4. Export Promotion .. .. .	1,74.811
5. Assistance to Bihar State Small Industries Corporation Ltd. ..	4,95.00
6. Subsidy on consumption of electric power grant to State Electricity Board.	2,25.00
7. Rehabilitation of small-scale sick Industries .. ..	50.00
8. Assistance in respect of establishment of new units in industrially backward districts.	1,00.00
9. Textile Industry .. .. .	200.00
10. Industrial area for Small Sector Estates .. .. .	6,00.00
11. Industrial Estates .. .. .	40.00
12. Leather and Allied Industries .. .. .	2,30.00
13. Wood based Industries .. .. .	2,00.00
14. Reorganisation and strengthening of Industries Directorate ..	50.00
15. Special subsidy on sale of Khadi Products to Khadi Board ..	100.00
16. Handicrafts .. .. .	1,50.00
17. Sericulture .. .. .	1,82.677
<b>Total for Village and Small Industries. .. .. .</b>	<b>3,062.488</b>
	Say, 30.63
	crores.

34. *Schemes of Village and Small Industries.*—(1) *Establishment of Quality Testing Laboratories at Divisional Headquarters.*—Small-Scale Industries generally suffer in respect of quality of their products. A testing laboratories is expected to be set up at Patna during the Fourth Five-Year Plan period. It is proposed to set up such Testing Laboratories at Divisional Headquarters at an estimated cost of Rs. 5.00 lakhs under the Fifth Five-Year Plan.

(2) *Grants-in-aid for Crafts Training (Rs. 10.00 lakhs).*—A number of private institutions are engaged in imparting crafts training to the people in the State. The institutions imparting such training are usually ill-equipped and suffer from financial difficulties. Grants-in-aid at the rate of Rs. 2 lakhs for each year of the Fifth Five-Year Plan period is proposed to be given to those institutions. A provision of Rs. 10.00 lakhs has therefor been made for the Fifth Five-Year Plan period.

(3) *Financial Assistance under the Bihar State aid to Industries Act.*—Provision of credit on a liberal basis has been an important part of the programme of small-scale industries of the State Government.

In view of large scale unemployment in Bihar, the State Government, has decided that maximum number of small-scale industries should be established in the State and credit facilities on low rate of interest may be provided to them. Loan given to the Small-Scale Industries under the State Aid to Industries Act is provided at lower rate of interest than those given by the banks and other financial institutions. The demand of fund under this head is very large but in view of the paucity of funds a provision of Rs. 250.00 lakhs has been suggested for the Fifth Five-Year Plan.

(4) *Export Promotion.*—The State Government has created an Export Promotion Cell in the Directorate of Industries. In order to boost up the export of the State to a sizeable proportion in the country's export, the following schemes are suggested for the Fifth Five-Year Plan.

- (i) *Strengthening of the export promotion cell.*—The cell is not adequate to shoulder the increasing responsibilities which aims at building, sizeable export from this State during the Fifth Plan period. It is, therefore, proposed to strengthen the cell at an estimated cost of Rs. 12.53,558 during the Fifth Plan period.
- (ii) *Assistance for export marketing.*—Considering the limitations of the small industries in capturing the export market it is desirable to have a separate Corporation to handle the work of export and import. This is one of the recommendation of the Export Potential Survey Report of Bihar. Such Corporation have already been established by the State of Gujarat, Punjab and Andhra Pradesh.

If the targets of exports from the State at the end of the Fifth Five-Year Plan is fixed of Rs. 200 Crores annually and if the Export Corporation to be set up, handles even 25 per cent of this export, the annual export of the proposed Export Corporation will be to the extent of Rs. 50 crores. For such a turnover the Corporation must have its own capital of at least Rs. 2 crores. This amount will have to be provided by way of loan. Besides, the establishment cost of this Corporation will have to be subsidised in the initial period for which suitable grants will have to be sanctioned. It is proposed to allocate Rs. 1.28 crore for this purpose during the Fifth Five-Year Plan.

- (iii) *Exhibition and fairs.*—It is necessary to participate regularly in exhibitions and fairs organised within the country as well as in foreign countries. Roughly, an expenditure of Rs. 5 lakhs annually is visualised under this head.

(iv) *Warehousing Facilities*.—Considering difficulties of manufacturers and exporters in storing their wares at Calcutta it is necessary to hire a suitable godown at Calcutta where storage facility will be available to the exporters of the State at concessional rates. The godown should roughly have 20,000 sft. area. The approximate rent will be Rs. 5,000 per months. Besides, it will be necessary to have a Warehouse Incharge, two Watchmen and Peon. The annual expenditure will work out to Rs. 70,680. The expenditure during the plan will be Rs. 3.50 lakhs.

(v) *Training Programme*.—The export potential survey of Bihar has identified that among other things, lack of export consciousness has hampered export from this State. For creating export consciousness in the State and also to educate State industrialists in Export techniques, it is necessary to organise short-terms training programme at regular intervals. For such training programme it is proposed to provide Rs. 40,000 per year.

(vi) *Award Prizes*.—In order to encourage exports of non-traditional items, it is proposed to grant awards to the exporters who make worth while contribution towards boosting up export of non-traditional items.

It is proposed to have six awards consisting of three first prize of Rs. 2,500 and 3 second prize to Rs. 1,000 each every year for three different categories of exporters, i.e. large-scale registered exporters, small-scale registered exporters and Merchants exporters. This will involve an annual expenditure of Rs. 10,500.

(vii) *Survey and Studies*.—In order to locate new products as well as to study the problem of different export commodities, it will be necessary to conduct studies and conduct surveys of different commodities having an export potential and the problems involved in their exports. These studies will have to be conducted through firms of consultants and specialised bodies. It is, therefore, proposed to provide Rs. 40,000 per year under this head.

(viii) *Publicity*.—For publicising as well as to introducing export worthy products in overseas markets, it is necessary to have systematic publicity programme through advertisement in papers, Trade Journals, Trade Bulletins etc. A sum of Rs. 25,000 annually is proposed under this head.

Summary of Export Promotion.	Total estimated cost. (Rs. in lakhs).
(i) Strengthening of the Export Promotion Cell .. .. .	12.536
(ii) Assistance for Export Marketing .. .. .	1,28.00
(iii) Exhibition and Fair .. .. .	25.00
(iv) Warehousing Facilities .. .. .	3.50
(v) Training Programme .. .. .	2.00
(vi) Award Prizes .. .. .	0.525
(vii) Survey and Studies .. .. .	2.00
(viii) Publicity .. .. .	1.25
Total .. .. .	1,74.811

(5) *Assistance to Bihar State Small Industries Corporation Ltd.—(a) Supply of Raw Materials to Small Scale Units in Bihar.*—Some of the important raw materials like iron and steel, mutton tallow, paraffin wax, stainless steel, etc. have been canalised through Small Industries Corporation. It is estimated that on an average the investment in purchase of raw materials on annual basis during the next three or four years would be to the extent of Rs. 15 crores, annually.

To transact business on such a large scale the corporation will need a broadbase of working capital. It is estimated that, apart from the funds raised through Banks the total requirement during the plan will be at least Rs. 3.43 crores from Government sources.

The present organisation and facilities are hardly sufficient to cope with the work. It is expected that additional amount of Rs. 20 lacs would be required for expansion of facilities and strengthening of staff. The Corporation would thus need a sum of Rs. 3.63 crores from Government funds for managing the trade of raw materials.

(b) *Marketing assistance to Small Scale Units.*—At present the greatest handicap in development of small scale units in the State is lack of marketing facility. The Corporation is running five emporia, namely at Delhi, Calcutta, Ranchi, Bombay and Patna through which some of the products of the small scale units in the State are being sold. These emporia require renovation and regular expenditure on advertisement to attract purchasers. It is proposed to invest a total sum of Rs. 8 lacs immediately to improve their working and also to open new emporia at the rate of four per annum during the Fifth Five-Year Plan. Besides, estimated working capital expected from Government would be Rs. 50 lacs. This will be required to make purchase from small-scale units and sell the goods through emporia.

(c) *Trade Centres.*—Besides, it is proposed to open five Trade Centres to acquaint the purchasers with the details of the goods being produced in the small-scale sector within the State. It is estimated that total expenditure over them would be Rs. 12.50 lacs.

(d) *Fairs and Exhibitions.*—Marketing needs exclusive as well as intensive publicity through advertisement in papers, exhibitions, etc., and it is proposed to spend a lac of rupees each year on these items to push up the sale of the products of small-scale units. The expenditure during the plan will be Rs. 5.00 lakhs.

(e) *Preparation of Feasibility Reports.*—A handicap in starting industrial units either small or big is to have clear idea about the nature of schemes to be started and other details about availability and type of machineries, their cost, etc. It is, therefore, necessary that the Corporation should have some arrangements for preparation of such reports and make them available to genuine and desirous small-scale entrepreneurs. It is proposed to have arrangement for finalisation of 50 projects reports in a year and 250 during the entire Fifth Five-Year Plan. The total expenditure is expected to be Rs. 7.50 lacs.

(f) *Technical assistance to S.S.I. Units.*—It has been our experience that large number of new entrepreneurs or even those who have already started their units find it very difficult to get immediate technical advice in respect of installation, working of the machines and quality finished products for competition in the market. With a view to minimising this difficulty it is proposed to have a technical wing under the Small Industries Corporation to help the small-scale entrepreneurs in aforesaid matters. The estimated amount of expenditure per year on the organisational set up will be Rs. 2.50 lacs i.e. Rs. 12.50 lacs during the entire Fifth Five-Year Plan. In addition Rs. 50,000 may be required for publication of literature during the Fifth Five-Year Plan on this subject, as the total on this account will be Rs. 13 lacs.



(g) *Entrepreneurs Development Scheme.*—It is, necessary that short course training, seminar, etc. should be organised to educate the people in starting and running industries. It is proposed to start two short courses and three seminars each year for entrepreneurship development during the Fifth Five-Year Plan. Each course may include about 20 to 30 persons and durations may be three months. The expenditure on this will be Rs. 1 lac per year i.e. Rs. 5 lacs during the Plan period.

(h) *Modernisation and expansion of some of the existing viable units under the Corporation.*—There are 32 manufacturing units under the Bihar State Small Industries Corporation Ltd. The Corporation is thinking of transferring some of these units to workers co-operatives. Yet some units will be retained by the Corporation. It is, proposed to modernise them and expand them. It is, proposed to spend Rs. 12.50 lacs on these units as follows :—

(Rs. in lacs.)			
Tanneries	..	..	7.00
Auto-battery	..	..	1.50
Knitting ..	..	..	2.00
Carpentry	..	..	2.00
Total .. ..			12.50

(i) *Construction of office building.*—The Bihar State Small Industries Corporation Ltd. has yet been not able to construct its own office building. It is expected that 15,000 sq. ft. of floor area would be needed to ensure working of this corporation. The estimated cost of the construction of this building inclusive of the cost of the land is Rs. 4.50 lakhs.

(i) *Strengthening of the organisational set up of Bihar State Small Industries Corporation.*—The B.S.S.I. Corporation is not equipped with implementation of development programmes envisaged above. The organisational set up of corporation has therefore to be substantially strengthened. A provision of Rs. 14.00 lakhs has therefore been made in the plan for strengthening the organisational set-up of the Corporation.

*Abstract of proposals of Bihar State Small Industries Corporation.*

	Equity share.	Loan.	Grant.	Total.
(Rupees in lakhs.)				
1. Financial assistance to B.S.S.I.C. for supply of raw materials for R.M.D. godowns.	1,81.50	1,81.50	..	3,63.00
2. Marketing assistance to S.S.I. Units—				
(a) For Emporia working capital ..	25.00	25.00	..	50.00
(b) Renovation and furnishing of Emporia.	8.00	..	..	8.00
(c) Trade Centres .. ..	..	..	12.50	12.50
(d) Fair and Exhibitions .. ..	..	..	5.00	5.00

	Equity share.	Loan.	Grant.	Total.
	(Rupees in lakhs)			
3. Preparation of Project Reports .. ..	..	..	7.50	7.50
4. Technical assistance to S.S.I. Units .. ..	..	..	13.00	13.00
5. Entrepreneurship Development Scheme .. ..	..	..	5.00	5.00
6. Modernisation and expansion of existing viable units.	12.50	..	..	12.50
7. Construction of Office Building .. ..	..	..	4.50	4.50
8. Strengthening of the organisational set up during Fifth Five-Year Plan.	..	..	14.00	14.00
<b>TOTAL—B.S.S.I.C.</b> .. ..	<b>227.00</b>	<b>2,06.50</b>	<b>61.50</b>	<b>4,95.00</b>

(6) *Subsidy on consumption of electric power to Electricity Board.*—There are about 15,000 small-scale industrial units registered by the Industries Department so far. By the end of the 4th Plan the number is likely to be of the order of 18,000. By the end of the Fifth Five-Year Plan, there would be about 34,000 small-scale industrial units registered in this State of which 50 per cent are likely to go into production. With the coming up of Adityapur, Bokaro and Ranchi Area Development Authorities and Patratu, Barauni and such other industrial complex, a net work of ancillary industries are likely to be set up around these industrial areas. Supply of electricity at cheaper rate plays an important part for proper growth of industries, specially for electric chemical and electrical thermal industries where about 33 per cent of the expenses are covered by the cost of electricity. The industrialists would naturally get attracted towards the zone of cheap and steady electricity. For small industries the average rate in Bihar is about 20 paise per unit whereas in Gujrat, Maharashtra, Punjab and in such other industrially advanced States the rate is between 10.67 to 17.34 paise per unit. The rate in Bihar is practically the highest amongst all these States.

In case of large industry the average rate per unit in Bihar is Rs. 15.41 paise per unit against Rs. 7.62, Rs. 7.13, Rs. 9.14 paise in Punjab, Mysore and Haryana respectively. For heavy industry the average rate in Bihar is Rs. 11.70 paise per unit against the rate of Rs. 5.38, Rs. 5.60, Rs. 6.73 paise per unit in above mentioned States. Naturally, the entrepreneurs in this State are not very much tempted to set up industries where the rate per unit consumption is very high. As such the rate of electricity acts as disincentive to the industrialists and entrepreneurs in this State. To attract them here we have to think of a multipronged move of eliminating the handicaps and of enhancing the facilities and incentives. For rapid industrialisation it is imperative that our rates are reduced by at least 25 per cent. This can be done either by the Bihar State Electricity Board which can reduce its rate for industrial consumer or the Government may compensate to the electricity board to the extent it will incur the loss. The small industries have already been exempted from the payment of minimum guarantee charge for electricity. *For such an ambitious programme we have, therefore, to make adequate provision of funds for the Fifth Five-Year Plan. A sum of Rupees 2.25 crores is being proposed during the Fifth Five-Year Plan for effecting economic rates to be charged for electricity to be consumed by industries in the State.*

(7) *Rehabilitation of Small Scale Sick industries.*—By the end of 4th Five-Year Plan, there would be approximately 18,000 small scale industries registered in this State.

It is hoped that the target of registration of 34,000 units would be achieved by the end of the Fifth Five-Year Plan. Roughly, 50 per cent of the registered units are likely to go into production. There are a large number of small-scale industrial units which though registered long ago and have been sanctioned loans from the State Government or the financial institutions are not functioning properly for various handicaps, and are not in a position to derive much advantage of the liberal incentive policy of the State Government. A large number of these units are weak, defunct or dormant. In order to make them viable, it is necessary that some special assistance is given to them in shape of cash loans, working capital for purchase of adequate raw materials, land, buildings, machineries and equipments etc. No marketing organisation for sale of the products of these units has been organised so far and such units may require some marketing assistance also. Some of the units have no managerial cadre and so they have considerable amount of difficulties to manage the affairs. It is, therefore, necessary that such weak small-scale industrial units are revitalised by giving them some additional incentives, credit, etc. for their proper growth. This needs proper survey and preparation of suitable need based scheme for which some additional staff may be required at different levels. A provision of Rupees 0.50 crores is, therefore, proposed during the Fifth Five-Year Plan.

(8) *Assistance in respect of establishment of new Units in the industrially backward Districts.*—So far 9 old districts of this State have been declared industrially backward, out of which 6 districts namely Palamau, Santhal Parganas, Bhagalpur, Saharsa, Darbhanga and Champaran have been selected for 10 per cent outright grant or subsidy by the Central Government to the industrial units in these districts. This subsidy is made available to the industrial units registered after 1st October, 1970 on their total fixed capital investment in shape of land, building, plant, and machinery, etc. It has been experienced that the small industries do not have ready access to industrial resources less to the capital market. Such industries are mostly unorganised. They have little to offer as securities and their new assets are not generally considered adequate for security purposes. It has, therefore, been felt that the industries in such areas need special treatment. Survey conducted in this regard shows that household or village industries including Khadi, agro-based industries, industries based on local minerals and forest, etc. can suitably be organised in such belt besides the usual types of industries.

The State Government have offered some incentives to set up industries in general and the Central Government contribute 10 per cent subsidy on capital investment of these units, but that itself is not considered adequate to create an atmosphere where the entrepreneurs can set up their industries in a big way. We have to set up some financial organisations in this belt in an organised manner. Infra-structural facilities have to be provided around the growth centres and raw material, marketing organisation, training of personnel, technical know-how, and such other items are to be included to attract the entrepreneurs in his belt. Keeping in view the backwardness of the area some special schemes needed for the belt are to be organised and developed in a scientific manner. It would, therefore, be necessary to provide some additional subsidy or other help to the extent of 10 to 15 per cent as the case may be to the entrepreneurs, unemployed Engineers, technicians and skilled or semi-skilled persons in shape of managerial subsidy, technical know-how, preparation of project report, construction of shed, repairs and maintenance of plants and machineries, allotment of land, payment of margin money, etc. With this object in view, it is proposed to provide a sum of Rupees 1 crore during the Fifth Five-Year Plan. The scheme will cover backward areas falling outside those districts which have been already declared industrially backward districts, by Government of India.

(9) *Textile industry.*—In Bihar, there are nearly 1.5 lakhs handlooms and 6,000 powerlooms which produce fabrics worth several crores of rupees every year. Nearly 10 lakh persons are dependent on this industry.

By the end of the Fourth Five-Year Plan the population in this State may be near about 60 millions and estimating per capital consumption of cloth to be 16 metres the annual requirement of cloth within the State will be nearly 960 million metres. The existing textile mills within the State which only have spinning section and the handloom and powerlooms as they exist now will be able to cater to only 10 to 15 per cent of cloth requirement. The bulk of requirement will, therefore, have to be met from outside the State. Thus there is ample scope for starting powerlooms and handlooms industries on much larger scale if they are able to compete with the mill cloth. Besides the possibilities of growth of this industry on the basis of demand it is also necessary because it is highly labour intensive. It is estimated that each powerloom which needs about Rs. 6,500 as initial investment gives direct employment to 1.5 persons. Similarly a handloom gives direct employment to atleast 1 person and here the investment is much smaller. Over and above the traditional skill of weavers and craftsmen can also be fully tapped if this industry grows.

(i) *Handloom*.—The main difficulties which the handloom weavers face today are the following :—

- (a) lack of regular supply of raw materials at reasonable rates.
- (b) Absence of adequate organised marketing.
- (c) Lack of training and want of developed tools.

The scheme of the Fifth Plan have to be oriented towards solving these three problems. Though a textile mill may be started the Fifth Plan in this State yet most of the requirements of yarn will have to be met with by the mills of other States. Hence the main function of Government in supply of raw materials will be to organise distribution. Yarn distribution has been nationalised and various agencies have been set up for regular supply of raw materials to weavers.

In marketing Bihar Cottage Industries has been playing some role. This organisation purchases the fabrics from the weavers and sells them. Similarly Bihar Handloom Weavers' Union also takes part in marketing but together they account for hardly 5% of the total goods produced in the State. It is imperative that the existing sales emporia of these organisations have to be reorganised, and new ones have to be opened so that the substantial load of marketing is undertaken by these organisation. The B.I.C. organisation itself has to be strengthened.

There is a great deal of scope for export of handloom products. Suitable assistance and organisation in this Directorate is also necessary. This will be taken up by the Export Promotion Cell of the Department of Industries.

Arrangement for training of weavers will have to be made. Similarly new tools and equipments will have to be supplied to them. At the same time they will also have to diversify their products in order to cater to modern demand otherwise they will find it difficult to compete with mill made fabrics.

Publicity has also to be launched through exhibitions and fairs and suitable prizes to really good artisans have also to be given.

For wool weavers a wool processing centre is being started at Obra in Aurangabad district. A sales emporium at New Delhi for crafts which will be produced in and around Obra will be very helpful.

A Common Facility centre for production of cotton blanket, water proof cloth and book binding cloth will also be very helpful. This centre may be attached to a finishing plant.

(ii) *Powerloom*.—Powerlooms face almost similar difficulties as the handlooms. Besides solving these difficulties provisions for facilities like bleaching, dyeing, finishing plant etc. have also to be undertaken to encourage powerlooms and handlooms.

If the products are processed properly they are expected to have a good market. The only Sizing and Processing Plant in public sector is at Biharshariff and it has been found that the processing done at this place has added to marketability in significant measure. Therefore, it is proposed to have such processing plant at other centres.

At present powerloom units are scattered all over the State which make the processing and extension of common facility service rather difficult. Powerlooms can be better served if they are concentrated at certain centres for which purpose it is necessary to have what may be called powerloom bastis with about 300 powerlooms in each basti. To initiate this step powerloom industries it is proposed to start such a basti atleast at one centre in the State during the Fifth Plan.

During the Fourth Plan it has been observed that the weavers find it difficult to take powerlooms as they do not have sufficient capital. One powerloom including its installation and working capital requires about Rs. 6,500. 300 Powerlooms can thus be had for Rs. 19.50 lakhs. It is proposed that loan to this extent may be sanctioned for establishing 10 powerlooms bastis in North Bihar. The total cost will be approximately Rs. 1.95 lakhs. Out of this amount Government would contribute as loan about Rs. 60 lakhs and the rest would be obtained from the financial institutions. In this manner about 3,000 powerlooms will be established. Rest of the powerlooms can come up with the help from the banks or financial institutions entirely or with a slight support from Government with loan under the State Aid to Industries Act. In total atleast 10,000 powerlooms should be installed during the Fifth Five-Year Plan.

(iii) *Administrative Structures*.—Besides providing these aids for development of handloom and powerloom it is necessary to strengthen the existing administrative set up which looks after this industry in the State. Officers of the rank of Assistant Directors with adequate technical assistance have to be posted to important centres of handloom and powerlooms, for example, at Gaya, Bhagalpur and some districts of North Bihar. Besides the headquarters organisation will also have to be strengthened.

In the Fifth Plan an expenditure of Rs. 2 crores is envisaged in textile sector the details of which are mentioned in the following Statement :—

Name of the Project.	Total cost. (Rs. in lakhs.)
1. Raw Material Depots of the Bihar Cottage Industries at Ranchi, Muzaffarpur and Bhagalpur.	15.31
2. Supply of improved tools and equipments to weavers.	2.60
3. Strengthen of the Bihar Cottage Industries (Marketing Organisation.)	1.22
4. New Emporia within the State at Muzaffarpur, Barauni, Bokaro, Deoghar and Dalmianagar.	4.75
5. Sales Emporia outside the State at Varanasi, Shrinagar, Hyderabad and Madras.	5.00

Name of Project.	Total cost <i>Rs. in lakhs.</i>
6. Reorganisation of existing Emporia of the Bihar Cottage Industries within the State.	5.42
7. Assistance to weavers to take up higher training	0.50
8. Publicity and Propaganda .. ..	1.50
9. Exhibition and Award of prizes to artisans ..	1.50
10. To equip technical staff to guide field work ..	3.35
11. Establishment of a Carpet Emporium at Delhi ..	1.96
12. Common Facility Centre at Patna .. ..	5.13
13. Display Counters at the airport and railway junctions.	1.00
14. Sizing, Dyeing, Bleaching and Finishing Plant at Ranchi, Bhagalpur, Patna, Manpur (Gaya) and Muzaffarpur.	60.00
15. Establishment of Powerloom Basti .. ..	60.30
16. Fancy yarn production centre .. ..	6.55
17. Design Research Centre for purchase and reproduction of samples including quality control.	2.60
18. Screen Printing Centre at Muzaffarpur and Bhagalpur.	16.31
19. Organisational set up for the Textile Wing of the Directorate.	5.00
TOTAL .. ..	2,00.00

(10) *Industrial Areas and Estates for S.S.I.*—A general write up regarding Industrial Areas is given in the previous pages on Industrial Areas of Large and Medium Sector. That write up covers the full details regarding Industrial Areas for the small-scale sector also. In the same Industrial Areas some portion is demarketed for Large and Medium Sector and some portion for S. S. Sector. Some of the Industrial Areas are totally for Small-Scale Sector. The total requirements of funds for Industrial Areas have been worked out at Rs. 19.18 crores. As against the above requirements Rs. 6.00 crores have been provided in Industrial Areas in the Large Scale Sector and Rs. 6.00 crores in Small-Scale Sector. If more fund could be provided into this head it would be possible to make more expenditure. The provision of Rs. 6 crores will include grants and subsidies in respect of development of land, provision of electricity, water facilities roads and other infrastructure amenities in order to promote industrialisation and employment in backward areas.

Besides the above, there is a proposal for expansion of some existing Industrial Estates and establishment of urban growth centres at each Subdivisional Headquarters. The details about these schemes are given below :—

(11) *Industrial Estates.*—Industrial Estates were constructed during Second and Third Plan period. These Industrial Estates have some open space around them and

there is possibility of construction of new sheds in them. By utilising the land it would be possible to set up new units in these Industrial Estates. Therefore a plan has been prepared for the expansion of the Industrial Estates, of which break up has been stated below :—

	(Rs. in lakhs.)		
Large Industrial Estate, Muzaffarpur ..	7.0	3.0	10.0
Bhagalpur .. .. .	7.0	3.0	10.0
Daltonganj .. .. .	2.0	1.0	3.0
Purnea .. .. .	2.0	1.0	3.0
6 Rural Industrial Estates.. ..	6.0	3.0	9.0
TOTAL ..			35.0
Extension and Improvement of roads ..	5.0	..	5.0
TOTAL ..			40.0

(12) *Leather and Allied Industries.*—Bihar is very rich in raw hides and skins and in animal bones. Yet its leather and allied industries are very much neglected and backward. About 1,00,000 M. T. of bones are available in Bihar every year and almost the entire quantity goes to neighbouring States where they are processed either as crushed bones, fertilisers, blue and gilation or as tallow. Similarly about 47 lakh pieces of hides and skins are annually available in Bihar out of which nearly 90 per cent are sent out to other States. In quality the cow hides of Darbhanga and Muzaffarpur and the goat skin of the entire north Bihar are the best available in any other place. The best varieties of soft leather are manufactured out of these hides and skin. There is thus a great potential for developing this industry in this State and considering that not much has been done so far, it needs somewhat heavy investment.

#### **Bone complex :**

A rough calculation has indicated that even if we tap 40 per cent of the available bones, hides and skin in this State it will give employment to more than 10,000 persons and it may earn foreign exchange of Rs. 10 crores annually. It is proposed to set up 4 bone complex. The cost will be Rs. 3.00 crores. Government would invest Rs. 1 crore and rest of the amount will come from financial institutions. It is expected that this investment will provide employment to 6,000 persons and will earn foreign exchange to the extent of about Rs. 25 lakhs per year. The recovery of tallow will help in the development of soap industry. Similarly the recovery of chrome and gilation will help in the development of abressive and pharmaceutical industries and recovery of phosphate will result in addition of fertilisers.

#### **Leather Complex :**

Four leather complex are proposed to be set up in Bihar in the Fifth Plan. The total cost will be Rs. 2,85 crores. Of this Government will invest Rs. 0.95 crores and the rest of the amount will come from financial institutions. This investment will give direct employment to about 2,000 persons and additional employment to about 3,000 persons. This complex will comprise of cow and goat skin tannery,

reptile and leather tannery, production of sport goods, volley ball, cricket ball and leather goods like suitcase brief case, foot wear etc.

More than 200 different chemicals are required for leather and allied industries and some of them are exclusively for leather industries. It is estimated that the total requirement of leather chemicals in the country is valued at about Rs. 15 crores every year out of which about Rs. 5 crores worth of chemicals are imported. Thus there is a vast scope for manufacture of leather chemicals in chemical complex. One such chemical complex can produce some of the important chemicals. These units will have to be encouraged in private sector or taken up in public or joint sector. This will be covered by the scheme under large and medium industries.

#### **Servicing Complex :**

It is necessary to provide servicing facilities for these complexes so as to maintain high degree of purity and perfection particularly in view of the fact that most of the commodities may be exported. It is proposed to have servicing complex at a cost of Rs. 10 lakhs.

#### **Training Programme :**

Training programme has to be re-organised and extended. At present there are cluster centres, T. C. P. centres giving training in different crafts including leather. In the Fifth Plan it is proposed to have some more centres particularly meant for leather industry in the areas where such industry will be established. The expected cost is Rs. 15 lakhs during the plan.

#### **Strengthening of Organisation :**

In order to take up development of leather industry at such a large scale it is necessary to strengthen the existing set up. It is proposed that the organisation will be strengthened at a cost of Rs. 10 lakhs during the Fifth Plan.

6. A Summary of the proposed allocation of fund is given below :—

					(Rupees in crore.)	
					State plan.	Institutional Finance.
(1) Bone complex	..	..	..	..	1.00	2.00
(2) Leather complex	..	..	..	..	0.95	1.90
(3) Servicing complex	..	..	..	..	0.10	..
(4) Training Programme	..	..	..	..	0.15	..
(5) Strengthening of organisation	..	..	..	..	0.10	..
				Total	..	2.30
						3.90

(13) *Wood based Industries.*—With about 18 percent of the soil covered with forest, Bihar has a great potentiality for development of industries based on wood and other forest products. So far no systematic and comprehensive survey has been made of these potentialities. The proposals for the Fifth Plan are the following :—

- (i) Detailed survey of possibilities of industries.
- (ii) Establishment of training centre for carpenters.
- (iii) Taking up industries based on wood and other forest products.



(i) Rs. 10 lakhs is being allocated for the studies of the possibilities of industries in this sphere.

(ii) At present there are 12 carpentry centres in the State which are generally ill-equipped and do not have much working capital with the result that they are not proving useful. They need complete modernisation and revitalisation. It is expected that it will cost about Rs. 22 lakhs in the Fifth Plan.

Besides, it is proposed that 10 more such centres may come up in the State. One centre may cost about Rs. 5 lakhs. Thus the total allocation in the Fifth Plan on this item will be 0.50 crore.

(iii) After a detailed survey is made which is expected to be completed in the first year of the plan it is expected that the possibility of various industries including sophisticated one will come up and such industries would be encouraged. On the basis of studies made so far the following industries are proposed to be set up.

One of the main requirement of production of quality footwear is the availability of Shoe-Lasts. There is no unit in Bihar at the moment for production of precious Shoe-Lasts as a result of which crores of rupees which could have been earned by commission of the leather into footwear is being lost. The forms of shoes cannot be maintained without correct Shoe-Lasts. The type of wood required to make the precision Shoe-Lasts, are shisham, Haldu, Kalam and they should be properly seasoned before using them for Shoe-Lasts. Shisham trees are very much available in Hazaribagh, Ranchi, Daltonganj and Singhbhum.

The outlay for one such scheme is Rs. 2.50 lakhs.

Four such units are proposed in the State. This will involve an outlay for Rs. 10.00 lakhs. The industry will be helpful in the establishment of leather units in Bihar.

(iv) *Splints (match-sticks) and Veneers.*—Splints and Veneers are the principal raw materials required for safety matches industry.

Timber of soft varieties are chosen for the manufacture of Splints and Veneers. Although there are a number of such industries in southern region, but in this stage percentage of such units are negligible.

With the expanding needs of matches and the available resources, it is proposed to have four match splints factories in the fifth plan each at Bagicha (Champaran), Koderma, Goilker, Daltonganj. The outlay for all the four units will be Rs. 10.40 lakhs.

(v) *Scheme for complete match box unit.*—One unit for Match Box was approved for the Fourth Five-Year plan at a total cost of Rs. 2.18 lakhs but the same could not be taken up due to inadequate funds.

It is proposed to have four units in the Fifth Plan one unit each at Bagaha, Kodarma, Goilker and Daltonganj.

The total cost of the projects would come to Rs. 8.72 lakh for four units. The scheme is expected to meet a portion of the demand of the State as well as the Match Splints will also be utilised.

(vi) *Scheme for Pressure Treatment Plants for Wooden Poles.*—This scheme involves a total outlay for Rs. 3.32 lakhs. This was approved in the Fourth Five-Year Plan but could not be taken up due to inadequate funds.

It is proposed to take it up in the fifth Plan again. The treated wooden poles are used in transmission of electricity and similar other uses in fencing, etc., as a result of which the durability is increased by five times of the normal durability.

(vii) *Extraction of oil from Salseed.*—Salseed (*Shrea rebusta*) is source of a national hard fact. Salseed oil (this term will be used hereafter) has attracted the attention, for the past 3 or 4 years, of Government, industrial entrepreneurs and scientific workers because of the abundant availability of seed, its use in soap-making and its possible suitable as substitute for cacao butter. The total capital investment of the scheme is about Rs. 30.00 lakhs.

Oil from Sal Seed is edible one. At the moment entire Sal Seed of the State is going to Hindustan Levers (by middle men) who are using it for extracting oil by solvent extraction plants.

A small section in the integrated plant can be utilised for extraction of oil from Mahua, Kavarij, etc. which can be used in soap industry.

The total proposed expenditure of the scheme is about Rs. 30.00 lakhs.

(viii) *Scheme for installation of 100 machines for manufacture of rope from Sabai grass, Bhabbai, etc., at Sahebganj and Goilker.*—This scheme was approved for Fourth Five-Year Plan but could not be taken up because of inadequate funds.

The total investment on one unit was assessed at Rs. 2.50 lakhs in Fourth Plan. Taking an average increase of cost of the equipments by 25 per cent so far, the capital investment comes out to Rs. 3.12 lakhs.

Thus for the two units, the capital investment will be around Rs. 6.24 lakhs in which it is proposed to be taken up in the Fifth Plan. This scheme will directly benefit the Tribal population of Santhal Pargana.

These industrial units will have thus a total outlay of about Rs. 69 lakhs. These may be taken up either by BSIDC or BSIC or any other Government organisation. The contribution of the Government will be 23.00 lakhs and the rest of the fund is expected to come from financial institutions. Since it is certain that there is a vast possibility of industries in this sector it is prudent to leave aside some additional fund for development of other industries in this sector. If we do not make a provision now these industries cannot be taken up in the Fifth Five-Year Plan and we shall have to wait for full five years. Hence in anticipation of the detailed study it is proposed that 0.95 crores should be set apart for other projects to be taken up.

The allocation in this sector will therefore be as follows :—

	Crores
On studies and surveys of potentialities and possibilities.	0.10
Industrial units ..	1.18
Training Centres ..	0.72

With this investment in industrial units it is expected that there will be a total investment of about Rs. 3.54 crores of which Rs. 2.36 crores will come from financial institutions.

Since most of these will be small industries the capital labour ratio will be about 5000 : 1 which will mean that the investment of Rs. 3.54 crores will generate a direct employment of about 7500.

(14) *Reorganisation and strengthening of Administrative Structure.*—The Fifth Five-Year Plan envisages schemes and projects which are really very vast in comparison to what has been done in any of the previous plans. It is, therefore, necessary that the administrative structure is strengthened to take up this task. The headquarters of the State Directorate as also the field organisations will have to be strengthened. A provision of Rs. 0.50 crore is kept for strengthening administrative structure.

(15) *Special subsidy on sale of Khadi products to Khadi Board and additional staff.*—Funds for the development of Khadi and Village Industries are available from the Central Plan, through the Khadi and Village Industries Commission. The establishment cost of the Board and rebate on sale of Khadi is provided in the State Plan. The activities of the Board has increased considerably and establishment cost has naturally gone up high since last two years. It is not possible to meet the increased demand of the Board with the Non-Plan budget. Attempts are being made to streamline the administrative structure of the Board to improve its promotional and developmental activities. It is estimated that an additional fund of rupees 7 lakhs annually would be required to meet the establishment cost. As such a provision of rupees 35 lakhs during the Fifth Five-Year Plan appears necessary.

To make the sale of Khadi popular in the mass, it is essential that more sale points are opened at suitable places, and special subsidy on sale of khadi and village industries provided. It is proposed to open 25 new sale points in the State with particular emphasis on the industrially backward areas. To meet the demands a sum of rupees 1 lakh would be required in the phased manner.

In order to improve the efficiency of the Board and to increase its activities, it is proposed to include a few new schemes to be implemented during the Fifth Five-Year Plan for which a sum of rupees 64 lakhs would be required. A part of the provision would be used to supplement assistance provided to the Board for their own development schemes. The bulk of the provision would, however, be utilised for promotion of village industries at Panchayat and Block level throughout the State.

To sum a provision of rupees 100 lakhs for the Khadi Board appears essential during the Fifth Five-Year Plan.

(16) *Handicrafts.*—Apart from providing large scale employment to the weaker sections of the society and making additions to their small earnings handicraft industry occupies an important position in the field of development of cottage industry. Development of traditional arts and crafts has a value of its own, besides providing economic gains to the persons engaged in it. No doubt, it earns foreign exchange also, but it has got its aesthetic value and has cultural bias. Development of this industry reflects the social, economic and political structure of the country or region, past and present. In addition, it provides employment to those persons who are socially depressed and economically backward. It provides gainful employment to the female, children and physically infirm also.

With the above end in view, a number of schemes of handicraft industry, viz., design development, adaptation of traditional skill to the manufacture of decorative articles and utility pieces in accordance with modern tastes, training of artisans, procurement of manufactured articles, marketing arrangements, development of tribal designs, etc. were implemented during the last three Plan period. These measures have attended with a good degree of success and has popularised the products of handicraft industry in the internal as well as foreign markets. For instance sikki goods

are in great demand in foreign countries. Likewise the lacqueware, wooden toys, bell metal products, furnishing fabrics, traditional furniture and articles made from bamboo are extremely popular with discriminating buyers. Exhibitions of these product have been arranged from time to time and they have yielded encouraging results.

With the experience of past performance obtained in this field the following schemes of handicraft industry have been proposed under the Fifth Five-Year Plan.

Schemes of Handicrafts.	Amount.
	(Rupees in lakhs.)
(1) Rural Industrial Estates for artisans .. .. .	20.00
(2) Raw Materials Depots .. .. .	10.00
(3) Production Centres .. .. .	50.00
(4) Procurement Centres .. .. .	10.00
(5) Exhibition and Publicity .. .. .	10.00
(6) Research Unit-Laboratory .. .. .	10.00
(7) Training including Higher Training .. .. .	4.00
(8) Expansion of I. I. D. .. .. .	5.00
(9) Expansion of Tribal Design Centre .. .. .	9.00
(10) Formation of Handicrafts Board or Directorate and strengthening of staff at Divisional and District Headquarters.	5.00
(11) Establishment of High Frequency Pressure Machines ..	8.00
(12) Export Wing .. .. .	5.00
(13) Credit facilities to Artisans .. .. .	2.00
(14) Incentive to Handicrafts Artisans .. .. .	2.00
<b>GRAND TOTAL</b> ..	<b>150.00</b>

(17) *Sericulture*.—The number of Sericulture Organisations in this State have constantly been increased since Second Five-Year Plan in order to give a fill up to the Sericulture Industry. The schemes formulated for the Fifth Five-Year Plan envisaged, *inter alia*, the strengthening of the administrative machinery, increased production of tassar, eri and mulberry silk in the State, strengthening of the seed organisations and also for providing employment opportunities to the backward people.

(i) *Establishment of 4 Tassar Seed Supply Station and 15 Tassar Seed Supply Sub-stations*.—At present there are certain areas which are not covered by our Tassar Seed Supply Stations and Sub-Stations. It is necessary to cover those areas also by opening new Tassar Seed Supply Stations and Sub-Stations with a view to supply D. F. Ls. to the tassar rearers of those areas and also to train them in rational ways of rearing reeling and spinning. As such it is necessary to start 4 new Tassar Seed Supply Stations and 15 new Tassar Supply Seed Stations. It will cost Rs. 26.875.

(ii) *Strengthening of existing Tassar Marketing Organisation*.—It is necessary to strengthen the existing Tassar Marketing Organisation as it hardly touches the fringe of marketing at present. It will cost Rs. 4.075 lakhs.

(iii) *Maintenance of Tassar Host Plants.*—The Tassar rearing industry is in the hand of aboriginals in Bihar, who have been traditionally undertaking it since time immemorial. As the tassar food plants have been neglected and are gradually deteriorating, it is necessary that a scheme for its maintenance and plantation of new plants in place of old one's be started.

For raising Asan and Arjun seedlings 6 nurseries three each in Singhbhum and Santhal Parganas districts with an annual capacity to produce about one lakh seedlings are proposed to be started. The scheme will cost Rs. 11.14 lakhs.

(iv) *Establishment of Tassar basic seed earings.*—Tassar Seed Supply Organisations are to be rationalised by setting up Basic Seed Zones under the departmental control. 6 Basic Seed farms and 12 Demonstration Farms of 50 and 30 acres respectively are proposed to be started in the above named districts. It will cost Rs. 13.50 lakhs.

(v) *Establishment of a Pilot Project Scheme for Mulberry.*—The Mulberry Silk Industry exists within the State of Bihar in the areas adjoining the district of Malda in West Bengal. At present there is scheme relating to Mulberry Silk, i. e., Mulberry Silk Farm at Rosera. For proper development of mulberry silk in Bihar it is proposed to start a Pilot Project in Mulberry which aims at—

- (a) Intensive work in a particular area near Raj Mahal where the climate is suitable and some cultivation of Mulberry exist.
- (b) To enhance the quality and quantity of Mulberry cocoons and silk.
- (c) To supply Mulberry D. F. Ls. free of cost and to train the rearers in rational method of rearing, reeling and spinning of Mulberry cocoons.
- (d) To supply the rearers improved variety of seedlings and samplings for Mulberry Plantation.
- (e) To arrange marketing facilities for a Mulberry cocoons produced by the rearers on fair price.

It will cost Rs. 4.075 lakhs.

(vi) *Publicity and Propaganda Unit.*—For dissemination of scientific knowledge amongst the sericulturists it is essential to have a Publicity and propaganda unit for Sericulture. The unit will also print leaflets on improvements of rearing, reeling and spinning etc. and distribute the same amongst the rearers etc. The total cost over this scheme will be Rs. 2.94 lakhs.

(vii) *Re-organisation of Government Silk Institute (Weaving and Dyeing and Printing).*—The Weaving and Dyeing and Printing Section of the Institute have not been re-organised. Keeping in view the importance of the Institute as well as the services rendered it is proposed to re-organise the Weaving and Dyeing and Printing Sections during the 5th Five-Year Plan at an estimated cost of Rs. 3.445 lakhs.

(viii) *Designing of a Dryer for Tassar Cocoons.*—To meet the requirement of small scale reeling establishments and also the need of Tassar producing States where the present method of stifling and drying of cocoons are not satisfactory, it is desirable that a drying Chamber be designed for a larger capacity for stifling and drying of at least 2000 Kahans of tassar cocoons per day. Certain experiments are necessary with regard to proper temperature needed for stifling of tassar cocoons at different stages of conditioning and also the duration of treatment to be given.

The scheme envisages modernisation of Seed Supply Organisations of Tassar and Eri by providing scientific-equipments for controlling temperature during hot months.

This will enhance the production of D.F.Ls. to meet the demand of the rearers. Total expenditure over these schemes will be Rs. 5.715 lakhs.

(ix) *Scheme for meeting the requirement of D.F.Ls. of the Tassar Silkworm Rearers in Bihar.*—(a) Bihar produced during the year 1970-71, 1,50,000 Kahan of Tassar Cocoons. For the production of (1,50,000  $\times$  25) Kahans of Tassar cocoons, D.F.Ls. required is 37,50,000 (1,50,000  $\times$  25).

Out of this requirement at present the Sericulture Organisation of the State is supplying about 11,00,000 D.F.Ls. to the rearers. So 26,50,000 D.F.Ls. more have to be produced and supplied to the rearers, to meet their full requirement. From 1 Kahan of Seed Cocoons 300 D.F.Ls. on average is produced. So for the production of 26,50,000 D.F.Ls. Kahans, 8,840 Kahan of additional seed cocoons are required.

If average price of seed cocoon is taken as Rs. 150 per kahan the amount required for purchasing the additional seed cocoons will be Rs. 8.840  $\times$  150 = Rs. 13,26,000 which is to be provided for purchase of additional seed cocoons.

(b) There are 8 zonal Assistant Directors of Industries (Seri.) working in the whole of Bihar for effective supervisions of the schemes under the Zonal Assistant Director of Industries (Seri.). The Assistant Director of Industries (Seri.) have no conveyance to move about their areas which is essential for proper movement as the Tassar rearers are located in the interior of forest areas.

The cost of One Jeep is Rs. 25,000.

For 8 Jeeps estimated cost is Rs. 2,00,000.

For the safe transportation of seed cocoons from different interior hats to the grainages and also for transportation of D.F.Ls. to the different interior villages where tassar silkworm rearers exist, it is necessary that a Van should be provided at Ranchi, Chaibasa, Giridih and Dumka.

Cost of one Van is Rs. 25,000  $\times$  4 = Rs. 1,00,000.

(c) Our Tassar Sub-stations are located in rented building where provision for proper keeping of seed cocoons are not available. It is necessary that 40 Tassar Sub-stations may be provided tubular structures for keeping seed cocoons properly. For one Sub-station Rs. 10,000 is required, so for 40 Sub-stations Rs. 4,00,000 is required.

	Rupees.
Total—Recurring .. .. .	13,26,000.00
Total—Non-recurring .. .. .	7,00,000.00
	20,26,000.00

The estimated cost of the scheme during the Fifth Five-Year Plan will be Rs. 73.30 lakhs.

(x) *Establishment of a Eri Basic Seed Station at Balmikinagar (Champan).*—In Bihar there are six Eri Seed Supply Stations located at Bakhtiarpur (Patna), Bhagalpur, Bégusarai (Monghyr), Sakra (Muzaffarpur), Dighwara (Saran) and Hehal (Ranchi). These Stations are conducting seed rearings as well as preparing industrial eggs. To ensure parity of original races and to maintain absolute freedom from diseases, it is necessary to bifurcate the functions so that the Eri Basic Seed Station may solely be engaged in the rearing of parent broods under Cellupar system while industrial seed preparation be conducted by the present six Seed Supply Stations. As such it is proposed to establish an Eri Basic Seed Station at Balmikinagar (Champan).

where the climatic conditions are such that Eri Rearing can be done throughout the year, *i.e.*, during summer also. The Scheme will cost Rs. 4.995 lakhs.

(xi) *Training and Study tour of Sericulture Staff.*—It is proposed to send Sericulture personal of Bihar in batches to the Sericulture State of India in training-cum-study tours so that they may refresh their knowledge in Sericulture technique.

Recurring—

For four batches of 5 persons in a year .. .. Rs. 20,000.00

The estimated cost of this schemes during the Fifth Plan comes to Rs. 1.00 lakh. A provision of Rs. 1.00 lakh has been made for the Fifth Five-Year Plan.

(xii) *Augmentation of funds for purchase of Seed Cocoons.*—The scheme aims at large production of D.F.Ls. and distribution of the same amongst the tassar Silk worm rearers free of cost for greater production of Tassar Cocoons. Extra fund is to be provided to the existing Tassar Seed Supply Stations, Sub-Stations, Pilot Projects and T.C.P. Centres for purchase of more seed cocoons for preparation of D.F.Ls. Only C.N.C., amount is to be provided. It will cost Rs. 11.75 lakhs.

(xiii) *Distribution of Improved Reeling-cum-Twisting machine and Spinning Charkhas.*—There is a dearth of quality reeled and spun Yarn due to the fact that the machine and method used for its extraction are crude. Recently improved machines have been introduced for reeling and spinning of quality yarn and are being supplied to the reelers and spinners on Loan-cum-subsidy basis.

The estimated cost over this scheme will be Rs. 7.50 lakhs. A provision of Rs. 7.50 lakhs has been made for this scheme during 5th Plan period.

(xiv) *Re-organisation of Tassar Institute, Chaibasa.*—It is proposed to add a Dyeing and Printing Section in Tassar Institute, Chaibasa as well as to provide more staff to man the scheme. Better equipments are also to be provided in the existing Sericulture and Weaving Section. The Institute is attracting a great number of Adivasis for training in Sericulture and Silk Weaving at present. It will cost Rs. 5.867 lakhs.

(xv) *Training of Science Graduates.*—The Scheme envisages training of Science Graduates in the All India Sericultural Training Institute, Mysore to bring better efficiency in Sericulture Schemes by having qualified personnel. The estimated cost of the scheme for the Fifth Plan, comes to Rs. 1.00 lakh. Hence a provision of Rs. 1.00 lakh has been made for the Fifth Plan period.

(xvi) *Construction of Staff quarters.*—Sericulture Centres are mostly located in the interiors where no facilities for accommodation of the staff is available. The scheme aims at construction of 'C' type quarters for their accommodation so that their efficiency in work may improve. The estimated cost over this scheme comes to Rs. 5.00 lakhs. A provision of Rs. 5.00 lakhs has been made.

(xvii) *Purchase of books and Periodicals.*—There is a dearth of even minimum basic scientific knowledge amongst the persons engaged in Silk Industry. The scheme envisages publications of pamphlets and leaflets for the dissipation of scientific knowledge amongst them. Rs. 0.50 lakhs is required for this purpose during the 5th Five-Year Plan. A provision of Rs. 0.50 lakhs has been made for this scheme during Fifth Plan.

## (xviii) Synopsis of schemes or Sericulture.

	Amount (Rs. in lakhs.)
1. Establishment of 4 Tassar seed supply stations and 15 Tassar seed supply sub-stations.	26.875
2. Strengthening of existing Tassar marketing organisation ..	4.075
3. Maintenance of Tassar Host plants .. ..	11.14
4. Establishment of Tassar Basic seed farmings .. ..	13.50
5. Establishment of a Pilot project scheme for Mulberry .. ..	4.075
6. Publicity and propaganda unit .. ..	2.94
7. Re-organisation of Government Silk Institute (weavings, Dyeing and Printing).	3.445
8. Designing of a Dryer for Tassar cocoons .. ..	5.715
9. Scheme for meeting the requirements of D.F.Ls. of the Tassar silk-worm Rearers in Bihar.	73.30
10. Establishment of a Eri Basic seed station at Balmiki Nagar (Champan).	4.995
11. Training and study tour of sericulture staff .. ..	1.00
12. Augmentation of funds for purchase of seed cocoons .. ..	11.75
13. Distribution of improved Reeling-cum-Twisting Machine and spinning Charkhas.	7.50
14. Re-organisation of Tassar Institute, Chaibasa .. ..	5.867
15. Scheme for Training of Science Graduates .. ..	1.00
16. Staff and Quarters for sericulture centres .. ..	5.00
17. Purchase of Books and periodicals .. ..	0.50
Total for Sericulture .. ..	182.677 or 183.00

35. *Employment Potential.*—Though the precise calculation regarding the employment opportunity is difficult to be made particularly in case of small industries yet a rough estimate has been made as follows:—

(a) *Financial assistance under state aid to Industries Act.*

2.50 crores of loan from State Government has been envisaged. Considering 20 per cent margin money to be provided by the entrepreneurs the private capital invested on this account will be Rs. 0.50 crores. It is expected that the financial institutions and banks will also come forward with about Rs. 2.50 crores. The total investment in industries therefore will be Rs. 5.50 crores. Considering the capital labour ratio 5000:1 person this investment will generate an employment of 11,000.

(b) *Rehabilitation of small-scale sick industries.*

Rs. 0.50 crores of investment from Government is planned. It is expected that this will induce a further investment of Rs. 0.50 crores of private capital and Rs. 3.00 crores from financial institutions and banks. The total investment will thus be Rs. 4.00 crores which may provide an employment to 8,000 persons.

(c) *Assistance to new units in Backward districts.*

With Rs. 1.00 crores investment by Government in various forms it is expected that private industrialists will invest nearly 3.00 crores and the financial institutions



and banks will invest about Rs. 12.00 crores. Total investment will thus be about Rs. 16.00 crores, generating employment of about 32,000.

(d) *Textile.*

Direct investment by Government will be Rs. 0.60 crore in powerlooms. Investment from financial institutions and banks will be Rs. 1.35 crores. This will provide employment to about 9,000 persons in 3,000 powerlooms, considering both direct and immediate subsidiary employment.

(e) *Wood*

Rs. 1.18 crores is to be invested by Government and it is expected that financial institutions and banks will come forward with Rs. 2.36 crores making a total investment of Rs. 3.54 crores. This is expected to have an employment potential of about 7,000.

(f) *Leather*

The direct investment of Government is Rs. 1.30 crores. It will induce an investment of Rs. 2.60 crores from financial institutions and banks. Thus a total investment of Rs. 3.90 crores is expected to provide an employment of about 8,000 persons.

Thus with a direct investment of about Rs. 6.48 crores by Government it is expected that the investment by financial institutions and banks will be to the extent of Rs. 23.81 crores. Thus taking into account the Government contribution the private investment and investment by financial institutions and banks total investment arising out direct investment by Government in the small industries sector will be Rs. 34.89 crores, or nearly Rs. 35 crore. This is expected to generate the total employment of 77,000.

Besides the promotional activities and incentives in textile, khadi handicrafts and sericulture is expected to generate an additional employment of about 37,000.

It is likely that a further employment of about 16,000 may be created by promotional activities in other wings in the small industries sector. Thus in the Fifth Five-Year Plan the total employment generated in the small industries sector may be around 1,30,000. Besides the infrastructure created in this plan may induce further investment and employment in the subsequent years. These industries are sure to provide scope for secondary and tertiary employment also.

**ANNEXURE I.**  
**LARGE AND MEDIUM INDUSTRIES**

(Rupees in lakhs.)

Serial no.	Name of the Scheme/Project.	Fourth Plan.		Proposed outlay for Fifth Plan.		Phasing of outlay in Fifth Plan.					Remarks.			
		Total cost original/Revd.	Foreign exchange component	Approved outlay.	Estimated expenditure.	Total.	Foreign exchange.	1974-75.	1975-76.	1976-77.		1977-78.	1978-79.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
I. Projects/Schemes implemented during the Fourth Plan.														
1	Spun Silk Mill .. ..	143.00	..	134.00	101.63	..	..	..	..	..	..	..	..	Now transferred to B.S.I.D.C. completed.
2	Modern Rice Mill .. ..	..	..	1.00	7.791	..	..	..	..	..	..	..	..	
3	Industrial Areas (Large and Medium) .. ..	..	..	174.00	141.036	600.00	..	90.00	90.00	120.00	150.00	150.00	150.00	
4	Assistance to B.S.I.D.C. .. ..	..	..	255.00	435.43	2995.70	..	449.25	449.25	579.00	749.10	749.10	749.10	
5	Assistance to the B.S.F.C. .. ..	..	..	100.00	Nil.	100.00	..	15.00	15.00	20.00	25.00	25.00	25.00	
6	Land Acquisition and Rehabilitation costs on Industrial Projects. .. ..	..	..	10.00	31.92	..	..	..	..	..	..	..	..	
7	Subsidy for Industrial Housing .. ..	..	..	5.00	0.05	..	..	..	..	..	..	..	..	This scheme was not executed.
8	Strengthening of development wing industrial research investigation, surveys including preparation of project report. .. ..	..	..	20.00	17.172	100.00	..	15.00	15.00	20.00	25.00	25.00	25.00	
9	Export Potential Survey .. ..	..	..	1.00	1.00	..	..	..	..	..	..	..	..	Work already completed.
10	Payment on account of counter guarantee given to Punjab National Bank of Assistance to Assam Syllimanite. .. ..	..	..	..	..	15.83	..	..	..	..	..	..	..	
11	Strengthening of construction Cell .. ..	..	..	0.80	..	..	..	..	..	..	..	..	..	
12	Grant to I.A.O.A. .. ..	..	..	3.00	..	..	..	..	..	..	..	..	..	

II. New Projects/Schemes Proposed to be taken up in the Fifth Plan (In order of priority).

1	Assistance to Bihar State Industrial Development Corporation.	..	..	..	..	2995.70	..	449.25	449.25	599.00	749.10	749.10	Provision for Fifth Plan includes new projects also.
	(i) Joint and public sector projects to be started by the B.S.I.D.C.	..	..	..	..	2500.00	..	375.00	375.00	500.00	625.00	625.00	
	(ii) Development of Ancillary Industries	..	..	..	..	25.00	..	3.75	3.75	5.00	6.25	6.25	
	(iii) Modernisation, Development and Expansion of Existing project.	..	..	..	..	150.00	..	22.50	22.50	30.00	37.50	37.50	
	(iv) Industries to be started in Backward districts by B.S.I.D.C. directly.	..	..	..	..	..	..	..	..	..	..	..	
	(v) Financial Assistance to Private Entrepreneurs by B.S.I.D.C.	..	..	..	..	300.00	..	45.00	45.00	60.00	75.00	75.00	
	(vi) Setting up of Planning and Development Wing in B.S.I.D.C.	..	..	..	..	20.70	..	3.00	3.00	4.00	5.35	5.35	
2	Rehabilitation of Large and Medium Silk Industries.	..	..	..	..	100.00	..	15.00	15.00	20.00	25.00	25.00	
TOTAL—LARGE AND MEDIUM INDUSTRIES.		143.00	..	700.00	755.659	3895.70	..	584.25	584.25	779.00	974.10	974.10	

ANNEXURE I—concl'd.

VILLAGE AND SMALL INDUSTRIES.

Summary of Statement of the State Plan Outlays.

Rupees in lakhs.

Name of Groups.	Fourth Plan.				Fifth Plan Proposed.			1974—79.				
	Approved Outlay.	1969—73. Actual expenditure.	1973-74. Anticipated expenditure.	1969—74. Total expenditure.	Total.	Capital.	Foreign Exchange.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Small Scale Industries—												
(i) Industries Department	351.05	291.534	112.14	403.674	1789.811	1099.00	..	268.47165	268.47165	357.9622	447.45275	447.45275
(ii) Co-operative Department	33.95											
										Concerns Co-operative Department.		
2. Industrial Estates & areas	96.00	38.932	96.00	134.932	640.00	627.20	..	96.00	96.00	128.00	160.00	160.00
3. Handloom Industries—												
(i) Industries Department..	19.30	9.678	6.00	15.678	139.70	80.20	..	20.955	20.955	27.94	34.925	34.925
(ii) Co-operative Department	60.70											
										Concerns Co-operative Department.		
Powerlooms .. ..	30.00	3.32	4.10	7.42	60.00	55.30	..	9.045	9.045	12.06	15.075	15.075
5. Handicrafts .. ..	41.00	15.439	13.50	28.939	150.00	70.45	..	32.50	22.50	30.00	37.50	37.50
6. Sericulture .. ..	63.00	31.391	18.26	49.651	182.677	33.002	..	27.40	27.40	36.535	45.671	45.671
7. Khadi and Village Industres	5.00	0.532	5.00	5.532	100.00	..	..	15.55	20.55	22.40	19.25	22.25
Total—Village and Small Industries.	700.00	390.826	255.00	645.826	3062.488	1965.152	..	459.92165	464.92165	614.89720	759.87375	762.87375

\*This does not include the expenditure concerning Handloom made by Co-operative Departments.

**ANNEXURE II**  
**VILLAGE AND SMALL INDUSTRIES.**

Serial no.	Physical Targets.			
	Fourth Plan		Fifth Plan.	
	Target.	Likely achieve- ment.	Targets.	
1	2	3	4	5
1	<b>Small Scale Industries—</b>			
	No. of new units likely to be established	..	5,000	15,000
	No. of additional employment likely to be created.	..	25,000	75,000
	(a) For technical qualified persons	..	1,000	7,500
	(b) Others	..	25,000	67,500
2	<b>Industrial Estates /Areas—</b>			
	No. of new estates/areas proposed to be set up (along with no. of sheds).	13 (Completion)	11	39
	(a) Urban Areas	..	2	..
	(b) Semi-urban Areas	..	3	..
	(c) Rural Areas	..	8	6
	No. of persons likely to be employed in—			
	(a) Construction activities	..	No target	20,000 Mandays.
	(b) Industrial activities	..	20	1,000
	(i) Technically qualified persons	..	..	100
	(ii) Others	..	..	900
3	Handloom Industry	..	Concerns Co-operative Department.	
4	<b>Powerlooms—</b>			
	Production (in m. metres)	..	..	..
	No. of persons likely to be employed	..	No target	6,785 Men.
5	<b>Handicrafts—</b>			
	Sales through emporia (Rs. lakhs)	..	..	..
	Exports (Rs. lakhs)	..	60 lakhs.	5 crores.
	No. of persons likely to be provided with	..	20 lakhs.	2 crores.
	(a) Fuller employment	..	1,500	50,000
	(b) New employment	..	400	2,000
6	<b>Sericulture—</b>			
	Production ('000 Kgs.)	..	Yarn 3,21,250 Kg.	Cocoons 18,11,250Kg. (Raw Silk & Silkware).
	Exports (Rs. lakhs)	..	1,50,000 Kahan	8,62,500Kahan
	No. of additional persons likely to be employed.	..	1,25,000 persons	31,250persons

## ANNEXURE III.

## VILLAGE AND SMALL INDUSTRIES.

List of Schemes proposed for Fifth Plan (1974-79).

(Rupees in lakhs.)

Serial no.	Head of Development.	Fifth Plan proposed.								Remarks.
		Total.	Capital.	Foreign Exchange.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	
1	2	3	4	5	6	7	8	9	10	11
1	Establishment of quality testing laboratory at divisional headquarters.	5.00	4.00	..	0.75	0.75	1.00	1.25	1.25	
2	Grants-in-aid for crafts Training.	10.00	..	..	1.50	1.50	2.00	2.50	2.50	
3	Financial assistance under the State aid to Industries Act.	250.00	250.00	..	37.50	37.50	50.00	62.50	62.50	
4	Export promotion ..	174.811	..	..	26.22165	26.22165	34.9622	43.70275	43.70275	
	(a) Strengthening of export promotion cell.	12.536	..	..	1.8804	1.8804	2.50720	3.134	3.134	
	(b) Assistance for export marketing.	128.00	..	..	19.20	19.20	25.60	32.00	32.00	
	(c) Exhibition & fares	25.00	..	..	3.75	3.75	5.00	6.25	6.25	
	(d) Warehousing facilities.	3.50	..	..	.5250	.525	0.70	0.875	0.875	
	(e) Training programme	2.00	..	..	0.30	0.30	0.40	0.50	0.50	
	(f) Award of prizes ..	0.525	..	..	0.07875	0.07875	0.105	.13125	.13125	
	(g) Survey and Studis	2.00	..	..	0.30	0.30	0.40	0.50	0.50	
	(h) Publicity ..	1.25	..	..	0.1875	0.1875	0.25	0.3125	0.3125	
5	Assistance to Bihar State Small Industries Corporation.	495.00	421.00	..	74.25	74.25	99.00	123.75	123.75	
6	Subsidy on consumption of Electric Power grant to Electricity Board.	225.00	..	..	33.75	33.75	45.00	56.25	56.25	
7	Rehabilitation of Small Scale Sick Industries.	50.00	50.00	..	7.50	7.50	10.00	12.50	12.50	
8	Assistance in respect of establishment of new units in industrially backward areas.	100.00	100.00	..	15.00	15.00	20.00	25.00	25.00	
9	Wood based industry ..	200.00	140.00	..	30.00	30.00	40.00	50.00	50.00	
10	Leather and allied Industries.	230.00	134.00	..	34.50	34.50	46.00	57.50	57.50	
	(a) Bone complex ..	100.00	70.00	..	15.00	15.00	20.00	25.00	25.00	
	(b) Leather complex ..	95.00	64.00	..	14.25	14.25	19.00	23.75	24.75	
	(c) Servicing units ..	10.00	..	..	1.50	1.50	2.00	2.50	2.50	
	(d) Training programme	15.00	..	..	2.25	2.25	3.00	3.75	3.75	
	(e) Strengthening of organisation.	10.00	..	..	1.50	1.50	2.00	2.50	2.50	
11	Reorganisation and strengthening of Industries Directorate.	50.00	..	..	7.50	7.50	10.00	12.50	12.50	
Total for Small-Scale Industries.		1789.811	1099.00	..	268.47165	268.47165	357.9622	447.4575	447.45275	

## ANNEXURE III.

## VILLAGE AND SMALL INDUSTRIES.

List of Schemes proposed for Fifth Plan (1974-79).

(Rupees in lakhs.)

Serial no.	Head of Development.	Fifth Plan proposed.								Remarks.
		Total	Capital.	Foreign Exchange.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	
1	2	3	4	5	6	7	8	9	10	11
12	Industrial areas and Estates for Small-Scale Industries.	640.00	627.20	..	96.00	96.00	128.00	160.00	160.00	
13	Textile Industry ..	139.70	80.20	..	20.955	20.955	27.94	34.925	34.925	
	(a) Establishment of raw material depot at Ranchi, Muzaffarpur and Bhagalpur.	15.31	10.00	..	2.2965	2.2965	3.062	3.8275	3.8275	
	(b) Supply of improved tools and equipments to weavers.	2.60	2.60	..	0.39	0.39	0.52	0.65	0.65	
	(c) Strengthening of B.C.I. marketing union.	1.22	..	..	0.183	0.183	0.244	0.35	0.305	
	(d) New Emporia within the State at Muzaffarpur, Barauni, Bokaro, Deoghar and Dalmianagar.	4.75	2.00	..	0.7125	0.7125	0.95	1.1875	1.1875	
	(e) Sales emporia outside the State at Varanasi, Srinagar, Hyderabad and Madras.	5.00	3.00	..	0.75	0.75	1.00	1.25	1.25	
	(f) Reorganisation of existing B.C.I. emporia in the State.	5.42	4.00	..	0.813	0.813	1.084	1.355	1.355	
	(g) Assistance to weavers to take up higher training.	0.50	..	..	0.075	0.075	0.10	0.125	0.125	
	(h) Publicity and propaganda.	1.50	..	..	0.225	0.225	0.30	0.375	0.375	
	(i) Exhibition and award of prizes to artisans.	1.50	..	..	0.225	0.225	0.30	0.375	0.375	
	(j) To equip technical staff to guide field work.	3.35	1.00	..	0.5025	0.5025	0.67	0.8375	0.8375	
	(k) Establishment of carpet emporia at Delhi.	1.96	0.90	..	0.294	0.294	0.392	0.49	0.49	
	(l) Establishment of common facility centre at Patna.	5.13	4.00	..	0.7695	0.7695	1.026	1.2825	1.2825	
	(m) Display counter at airport and railway junction.	1.00	0.20	..	0.15	0.15	0.20	0.25	0.25	

## ANNEXURE III.

## VILLAGE AND SMALL INDUSTRIES.

List of Schemes proposed for Fifth Plan (1974-79).

(Rupees in lakhs.)

Serial no.	Head of Development.	Fifth Plan proposed.								Remarks.
		Total.	Capital.	Foreign Exchange.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	
1	2	3	4	5	6	7	8	9	10	11
(n)	Spinning, Dyeing, Bleaching and Finishing plant at Ranchi, Bhagalpur, Patna, Manpur (Gaya) and Muzaffarpur.	60.00	40.00	..	9.00	9.00	12.00	15.00	15.00	
(o)	Fancy yarn production centre.	6.55	1.50	..	0.9825	0.9825	1.31	1.6375	1.6375	
(p)	Design Research Centre for purchase and reproduction of samples including quality control.	2.60	1.00	..	0.39	0.39	0.52	0.65	0.65	
(q)	Establishment of screen printing centre at Muzaffarpur and Bhagalpur.	16.31	10.00	..	2.4465	2.4465	3.262	4.0775	4.0775	
(r)	Organisational setup for Textile Wing.	5.00	..	..	0.75	0.75	1.00	1.25	1.25	
Total for Textile or Handloom Industry.		139.70	80.20	..	20.955	20.955	27.94	34.925	34.925	
14	Powerloom Industry—									
(1)	Establishment of powerloom Basti in North Bihar.	60.30	55.30	..	9.045	9.045	12.06	15.075	15.075	
Total for Powerloom Industry.		60.30	55.30	..	9.045	9.045	12.06	15.075	15.075	
HANDICRAFTS.										
1	Rural Industrial Estates	20.00	10.00	..	3.00	3.00	4.00	5.00	5.00	
2	Raw Material Depots ..	10.00	1.20	..	1.50	1.50	2.00	2.50	2.50	
3	Production Centre ..	50.00	25.00	..	7.50	7.50	10.00	12.50	12.50	
4	Procurement Centres	10.00	6.00	..	1.50	1.50	2.00	2.50	2.50	
5	Exhibition & Publicity	10.00	5.00	..	1.50	1.50	2.00	2.50	2.50	
6	Research Unit Laboratory	10.00	7.00	..	1.50	1.50	2.00	2.50	2.50	
7	Training including Higher Training.	4.00	..	..	0.69	0.60	0.80	1.00	1.00	
8	Expansion of Institute of Industrial Design.	5.00	4.50	..	0.75	0.75	1.00	1.25	1.25	



## ANNEXURE III.

## VILLAGE AND SMALL INDUSTRIES.

List of Schemes proposed for Fifth Plan (1974-79).

(Rupees in lakhs.)

Serial no.	Head of Development.	Fifth Plan proposed.								Remarks.
		Total.	Capital.	Foreign Exchange.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	
1	2	3	4	5	6	7	8	9	10	11
9	Expansion of Tribal Design Centre.	9.00	7.00	..	1.35	1.35	1.80	2.25	2.25	
10	Formation of Handicrafts Board or Directorate.	5.00	..	..	0.75	0.75	1.00	1.25	1.25	
11	Establishment of High frequency pressure machine.	8.00	2.75	..	1.20	1.20	1.60	2.00	2.00	
12	Export Wing	5.00	2.00	..	0.75	0.75	1.00	1.25	1.25	
13	Credit facilities to Artisans.	2.00	..	..	0.30	0.30	0.40	0.50	0.50	
14	Incentives to Handicrafts Artisans.	2.00	..	..	0.30	0.30	0.40	0.50	0.50	
Total for Handicrafts		150.00	70.45	..	22.50	22.50	30.00	37.50	37.50	
SERICULTURE.										
1	Establishment of four Tasar Seed Supply Station and fifteen Tasar Seed Supply Sub-Stations.	26.875	5.88	..	4.031	4.031	5.375	6.719	6.719	
2	Strengthening of existing Tasar marketing organisation.	4.075	1.70	..	0.611	0.611	0.815	1.019	1.019	
3	Maintenance of Tasar Host Plants.	11.14	2.24	..	1.671	1.671	2.228	2.785	2.785	
4	Establishment of Tasar Basic seed farming.	13.50	2.28	..	2.025	2.025	2.700	3.375	3.375	
5	Establishment of pilot project for mulberry.	4.075	1.41	..	0.611	0.611	0.815	1.019	1.019	
6	Publicity and propaganda	2.94	0.50	..	0.441	0.441	0.588	0.735	0.735	
7	Reorganisation of Government Silk Institute (weaving, dyeing and printing).	3.445	2.00	..	0.517	0.517	0.689	0.861	0.861	
8	Designing of drier for Tasar Cocoons.	5.715	1.205	..	0.857	0.857	1.143	1.429	1.429	
9	Scheme for meeting the requirements of D.F.Ls. of Tasar Silk worm rearers in Bihar.	73.30	7.00	..	10.995	10.995	14.660	18.325	18.325	

## ANNEXURE III.

## VILLAGE AND SMALL INDUSTRIES.

List of Schemes proposed for Fifth Plan (1974-79).

(Rupees in lakhs.)

Serial no.	Head of Development.	Fifth Plan proposed.					1976-77.	1977-78.	1978-79.	Remarks
		Total.	Capital.	Foreign Exchange.	1974-75.	1975-76.				
1	2	3	4	5	6	7	8	9	10	11
10	Establishment of Eri Basic Seed Station at Balmikinagar (Cham-paran).	4.995	2.13	..	0.749	0.749	0.999	12.49	12.49	
11	Training and study tour of Sericulture staff.	1.00	..	..	0.15	0.15	0.20	0.25	0.25	
12	Augmentation of funds for purchase of seed cocoons.	11.75	..	..	1.762	1.762	2.350	2.938	2.938	
13	Distribution of improved reeling-cum-twisting machine.	7.50	..	..	1.125	1.125	1.500	1.875	1.875	
14	Reorganisation of Tasar Institute, Chaibasa.	5.867	1.557	..	0.880	0.880	1.173	1.467	1.467	
15	Scheme for training of Science graduates.	1.00	..	..	0.15	0.15	0.20	0.25	0.25	
16	Staff quarters for sericulture centre.	5.00	5.00	..	0.75	0.75	1.00	1.25	1.25	
17	Purchase of books and periodicals.	0.50	0.50	..	0.075	0.075	0.100	0.125	0.125	
Total for Sericulture ..		182.677	33.002	..	27.400	27.400	36.535	45.671	45.671	
<b>KHADI AND VILLAGE INDUSTRIES.</b>										
18	Khadi and Village Industries.	100.00	..	..	15.55	20.55	22.40	19.25	22.25	
Total for Khadi and Village Industries.		100.00	..	..	15.55	20.55	22.40	19.25	22.25	
<b>TOTAL FOR VILLAGE AND SMALL INDUSTRIES.</b>		<b>3062.488</b>	<b>..</b>	<b>..</b>	<b>459.92165</b>	<b>464.92165</b>	<b>614.89720</b>	<b>759.87375</b>	<b>762.87375</b>	

## CHAPTER XVII

### MINERAL DEVELOPMENT

Bihar is the leading producer of minerals in the country. In 1971, the value of mineral output produced in the State was Rs. 127.6 crores against Rs. 442.2 crores in the country as a whole. The share of Bihar in the total national mineral output thus comes to about 28.9 per cent.

2. The mineral resources of the State, however, have not been fully explored, mapped, proved or exploited. It is necessary, therefore, that efforts are made for large scale exploration and exploitation of all the mineral resources of the State. With a view to doing this, several schemes of mineral development were included in the Fourth Plan period with an outlay of Rs. 352.0 lakhs. The schemes included expansion of mining and geological establishments, establishment of a geological laboratory and a Bihar State Mineral Development Corporation, development of Bihar Mica Syndicate and Saphi Mica Mines, installation of weigh-bridges, development of communications in mining areas and establishment of a ground water cell. The expenditure in the Fourth Plan period is, however, estimated to be Rs. 224.66 lakhs only. There has thus been a shortfall of expenditure. This shortfall has occurred largely in respect of the mineral road scheme where only a sum of Rs. 144.60 lakhs has been spent against a provision of Rs. 251.25 lakhs. This was due to implementation difficulties of the P.W.D. Some shortfall also took place in other schemes mainly because of difficulties in obtaining financial sanctions, or in filling up sanctioned posts. In respect of the Bihar State Mineral Development Corporation Scheme however, there was an excess of expenditure, the actual expenditure being Rs. 17.50 lakhs against a plan provision of Rs. 9.42 lakhs.

3. In the Fifth Five-Year Plan period, it is proposed to intensify mineral Development work. With a view to doing this, it is proposed to invest a sum of Rs. 760.39 lakhs over different mineral development schemes. The schemes proposed to be taken up relate to expansion of existing mining and geological establishments, establishment of a central geological laboratory at Patna and zonal laboratories at Hazaribagh and Daltonganj, expansion of the activities of the Bihar State Mineral Development Corporation and the Bihar Mica Syndicate, development of road communications in mining areas, expansion of ground water cell, research and training and purchase of survey instruments and vehicles. Brief notes in respect of each of these schemes are given below :—

#### Expansion of Mining Establishment

4. Mines Department already maintain an establishment at the district, regional and headquarters levels. At the district level, there are 19 posts of District Mining Officers and 22 posts of Assistant Mining Officers, i.e., in all a total of 41 posts. At the regional level, there are 4 Deputy Directors of Mines, each incharge of a circle which normally comprises a group of districts. At the headquarters level, there is a Director of Mines to guide and supervise the work in the field, besides attending to work at the Secretariat level. The present organisation, however, is deficient in many respects. Firstly, it does not allow sufficient inspections of the mining leases with the result that the provisions of the Mines and Minerals (Regulations and Development) Act, 1957 cannot be enforced to the extent desired. Similarly, the existing number of circles is not adequate enough to permit closer supervision of the work of the District Mining Officers and Assistant Mining Officers by the Deputy Directors. Finally, at the headquarters level, the Director, Mines is handicapped in the absence of a technical P.A. and an information and statistics wing and a library. In the Fifth Plan, therefore, it is proposed to get over these deficiencies.

5. With a view to strengthening the existing mining establishment, it is proposed to invest a sum of Rs. 45.52 lakhs on the same. Of this, Rs. 27.45 lakhs would be spent on the district establishment, Rs. 13.33 lakhs on the regional establishment and Rs. 4.74 lakhs on the headquarters establishment. As a result of these investments, the number of posts of District Mining Officers and Assistant Mining Officers will increase to 54. This will include 20 District Mining Officers and 34 Assistant Mining Officers. The increase in the strength of District Mining Officers/ Assistant Mining Officers from 41 to 54 has been worked out on the basis of a work load of inspections. There are some 2,000 major mining leases in the State. Assuming that a Mining Officer should inspect these leases once every quarter, the total number of inspections required would come to about eight thousand. Similarly, assuming that a Mining Officer can make an average of 150 inspections every year, eight thousand inspection would require some 54 officers. Similarly, the number of Deputy Directors of Mines is likely to increase from the existing 4 to 6 at the end of the Fifth Plan period. This increase appears necessary in view of grouping of districts so as to constitute 6 circles. At the headquarters level, necessary strengthening of the mining establishment will be done by appointment of a technical P.A. in the rank of a District Mining Officer to the Director of Mines, appointment of a mineral economist together with other statistical staff for the information and statistics wing and establishment of a library. Besides, other ancillary staff will also be appointed at the various levels.

#### **Expansion of Geological Establishment**

6. In the Fourth Plan period, a sum of Rs. 42.88 lakhs was provided for expansion of the geological establishment. The expenditure till the end of the Fourth Plan period is estimated to be Rs. 37.15 lakhs. As a result of this investment, intensive geological investigations of bauxite and limestone deposits in Ranchi, Rohtas and Palamau districts of the State were carried on. On the basis of work done so far, a reserve of 10.20 million tonnes of all-grade bauxite, including 4.65 million tonnes of metal-grade ore, has been indicated in the Ranchi and Palamau districts of the State. Similarly, about 78 million tonnes of limestone, including 30 million tonnes of cement grade limestone has been indicated in the Basarhi-Katudanr areas of Rohtas district. The reserves of limestone located in Adhaura-Bhurwa (220 million tonnes), Rohtas-Kanakpur and Ramdhira areas (6 million tonnes) of Rohtas district and Panda Valley (15 million tonnes) in Palamau district have been found to be uneconomical in working due to their excessive over-burden.

7. In the Fifth Five-Year Plan, it is proposed to take up further investigations for bauxite in Ranchi and Palamau district, limestone and dolomite in Rohtas, Palamau, Hazaribagh and Singhbhum districts, graphite and phosphorite in Palamau district, bentonite in Santhal Parganas district, iron and pyrites in Rohtas district and quater-feslpar, glass sands etc. in various other parts in the State. The work of intensive geological investigation in the State will necessitate appointment of additional staff to the extent of 3 Deputy Directors of Geology, 6 Senior Geologists, 22 Geologists and 14 Geological Assistants, besides other field and office staff. In addition 7 drilling machines, 9 trucks, 20 jeeps and other equipments would also be necessary. The total outlay on the expansion of geological establishment in the Fifth Plan has been kept at Rs. 100.05 lakhs.

#### **Expansion of Geological Laboratory**

8. During geological investigations, samples of ores and minerals have to be collected and analysed. It is only after this analysis that it is possible to say what are the mineral resources of the State or their quality. Mines Department have already a zonal geological laboratory at Hazaribagh and a skeleton one at Daltonganj. These

laboratories, however, are poorly equipped and are not able to cope up with the number of samples that are required to be analysed. In the Fourth Plan period, a sum of Rs. 7.80 lakhs was provided for development of laboratory facilities. The expenditure is estimated to be Rs. 4.53 lakhs. As a result of these outlays, some strengthening of the laboratories at Hazaribagh has been possible but this is not enough. The laboratory has presently about 8 thousand arrear samples. This number is likely to increase by about 8 to 10 thousands per year in the Fifth Plan period. It is necessary, therefore, that adequate laboratory facilities are developed.

9. In the Fifth Plan, it is proposed to set up a fully equipped central geological laboratory at Patna and 2 zonal laboratories at Hazaribagh and Daltonganj. This is being done in pursuance of the recommendation made by an expert team of the Geological Survey of India. The development of laboratory facilities in the Fifth Plan period is estimated to cost Rs. 35.05 lakhs. The cost includes expenditure on additional staff, purchase of equipments, chemicals and reagents and purchase of vehicles.

#### **Bihar State Mineral Development Corporation**

10. State Government set up in 1972-73 the Bihar State Mineral Development Corporation with an authorised capital of Rs. 5 crores. The actual capital advanced to the Corporation in the year, however, was only Rs. 11.50 lakhs. This is expected to be further augmented during the current year by Rs. 6 lakhs. The Corporation had framed 7 schemes for mining and beneficiation of different minerals in the State. These included quarrying and marketing of basalt stone in Santhal Parganas areas, mining, calcination and beneficiation of kyanite in Dhalbhum areas, mining and beneficiation of graphite and magnetite in Palamau, mining and marketing of bauxite, mining of fire-clay in Hazaribagh and Palamau and transport of sand. Planning Commission, however, did not approve three of its schemes relating to mining and marketing of bauxite, fire-clay and sand. In the Fifth Plan, therefore, the activities of the Bihar State Mineral Development Corporation will be directed mainly towards quarrying and marketing of basalt stone in Santhal Parganas, mining, calcination and beneficiation of kyanite in Dhalbhum areas and mining and beneficiation of graphite and magnetite in Palamau district. The operations of the Bihar State Mineral Development Corporation in the Fifth Plan period would require an investment of Rs. 208.00 lakhs. Of this, Rs. 14 lakhs would be needed for stone quarrying in Santhal Parganas, Rs. 93.00 lakhs for mining, calcination and beneficiation of dyanite in Singhbhum, Rs. 86 lakhs for mining and beneficiation of graphite in Palamau and Rs. 15 lakhs for mining of magnetite in Palamau district. The entire amount of Rs. 208 lakhs would be made available by the State Government to the Corporation. The State Government's contribution of Rs. 208 lakhs to the Corporation would include Rs. 68 lakhs by way of loan and Rs. 140 lakhs by way of equity participation.

#### **Bihar Mica Syndicate**

11. The Bihar Mica Syndicate was set up in the Third Plan period with an authorised capital of Rs. 2 crores. It has, however, a paid up capital of only Rs. 30 lakhs. In the Fourth Plan period, only a sum of Rs. 2 lakhs was invested in the Bihar Mica Syndicate though provision had been made for Rs. 4 lakhs. The activities of the Syndicate included mining and processing of mica for export. Presently, the Syndicate has 4 working mines which produce only about 100 tonnes of mica valued at Rs. 4.5 lakhs. Recently, it has also taken up 2 new mines for development and another 2 for prospecting. It has 2 factories at Koderma and Giridih which annually process about 200 tonnes of mica valued at Rs. 80 lakhs.

12. In the Fifth Plan period, the Syndicate proposes to develop 6 new mines. It also proposes to augment the processing capacity of its factories. The total requirements of funds for the activities of the Bihar Mica Syndicate in the Fifth Plan period is estimated at Rs. 25 lakhs. This includes Rs. 9 lakhs for mining, Rs. 14 lakhs for its factories and Rs. 2 lakhs for its office establishment.

#### **Development of roads in mining areas**

13. In the Fourth Plan period, 5 roads and a few bridges had been taken up for construction in the mining areas. The roads taken up were the Chotanagra-Salai road (Rs. 14.51 lakhs), Salai-Manoharpur road (43.55 lakhs), Akbarpur-Jardag road (Rs. 103.75 lakhs), Nagar Untari-Bhawanathpur road (45.25 lakhs) and Malpahari-Pakur road (4.00 lakhs). The bridges taken up included those on the Barajamda-Chotanagra road (Rs. 44 lakhs) and the river Koel (Rs. 52.44 lakhs). The total estimated cost for these roads and bridges was then estimated at Rs. 307.51 lakhs. In the Fourth Plan, however, financial provision made for these roads and bridge was only Rs. 251.25 lakhs. The expenditure is estimated to be only Rs. 144.60 lakhs. The main reason for the shortfall in expenditure on roads has been the implementational difficulties of the Public Works Department. These relate to preparation of estimates, invitation of tender, entrustment of works to contractors and execution of the same. In the meanwhile, the estimates of these roads and bridges have increased to Rs. 340.52 lakhs. This means that a spill-over expenditure of Rs. 195.92 lakhs has to be incurred to complete the roads and bridges already taken up. In the Fifth Plan proposals, this amount has been fully provided for.

14. In the Fifth Plan, 4 new roads are also proposed to be taken up. These are the Belandia-Maghagaon road via Bhunda (Rs. 36 lakhs) and Gopinathpur-Galudih road (Rs. 30 lakhs) in the district of Singhbhum, Lohardaga-Tori road via Pakhar and Khamar (Rs. 42 lakhs) in the district of Ranchi and Chainpur-Bermo-Nawadih-Datam-Mai-Sokra-Chainpur road (Rs. 10 lakhs) in the district of Palamau. The proposed roads in the Singhbhum district are meant for development of China clay and Kyanite bearing areas. The road proposed in Ranchi district is intended to serve the bauxite areas. The road proposed in the Palamau district is intended to serve the graphite, dolomite, marble, magnetite bearing areas. The total cost estimated at Rs. 118 lakhs.

15. The provision for development of roads in mineral areas in the Fifth Plan period thus comes to Rs. 313.92 lakhs.

#### **Expansion of Ground Water Cell**

16. In the Fourth Plan, a sum of Rs. 4.47 lakhs was provided for establishment of a separate ground water cell. The actual expenditure is estimated to be Rs. 2.68 lakhs. The Cell has been constituted with a senior Geologist and 4 Geologists, besides certain other staff such as surveyors, draftsmen, drillers and chainmen, etc. The Cell has intensive investigation of ground water resources in Garhwa and Latehar areas of Palamau district covering an area of about 5 hundred square kilometres. The investigations include water table studies, preparation of water tables, contour maps, well inventories and location of new sources of drinking water.

17. In the Fifth Plan period, it is proposed to expand the ground water cell further by appointment of another Senior Geologist and 4 Geologists and other categories of staff. The work of ground water investigation will be taken up in the districts of Gaya, Rohtas, Monghyr, Santhal Parganas, Hazaribagh and Ranchi,

besides Palamau. The coverage of areas in each district may be about a thousand square kilometres.

### **Training and Research**

18. With a view to helping the officers of the Mines Department to acquire knowledge and expertise in mineral technology, it is proposed to award every year one scholarship for study abroad and 2 scholarships for training in the country itself. The foreign scholarship may be for a period of one year and may cost Rs. 40 thousand per year. The domestic scholarships may be for 6 months each and may cost Rs. 12 thousand per year. The total cost of foreign and domestic scholarship may thus be Rs. 52 thousand per year. Accordingly, a sum of Rs. 2.60 lakhs is being provided in the Fifth Plan period for this purpose.

### **Survey Instruments and Vehicles**

19. The various operations of the Mines and Geology Department would necessitate purchase of survey equipments and also vehicles. Some of the survey equipments required may be theodolites, ferro-printing and cyclostyling machines and certain other miscellaneous instruments. Similarly, some additional vehicles comprising 9 Trucks, 29 Jeeps and 8 Station Wagons, may be required for the district, regional and headquarters establishments for both mines and geological wings. Accordingly, a sum of Rs. 81.90 lakhs is being provided for these items. Of this Rs. 63.45 lakhs would be for survey equipments and Rs. 18.45 lakhs for vehicles. The outlay on vehicles includes contingency expenditure also.

20. Programmewise details of the schemes envisaged during Fifth Plan have been given in Annexure I. Similarly project reports on the programmes sought to be executed by the State Mineral Development Corporation have been shown in Annexure II.

## ANNEXURE

## MINERAL

Serial no.	Name of the Scheme/Projects.	Total outlay.		Foreign Exchange Components.
		Original.	Revised.	
1	2	3	4	5
1	Expansion of Mining Establishment .. ..	17.30	29.02	..
2	Expansion of Geological Development .. ..	72.62	42.38	..
3	Geological Laboratory .. ..	10.47	7.80	..
4	State Mineral Development Corporation .. ..	57.26	9.42	..
5	Bihar Mica Syndicate .. ..	15.00	4.00	..
6	Saphi Mica Mines .. ..	7.00	1.54	..
7	Weigh Bridges .. ..	1.50	1.62	..
8	Road Development in Mining Areas .. ..	1,55.00	2,51.25	..
9	Investigation of Ground Water .. ..	3.85	4.47	..
10	In service Training and Research promotion .. ..	..	..	..
11	Provision for Survey Instruments, Plants and Vehicles .. ..	..	..	..
TOTAL .. ..		3,40.00	3,52.00	..



## I

## DEVELOPMENT.

*(Rupees in lakhs.)*

Fourth Plan.		Proposed outlay for Fifth Plan.		Phasing of outlay in the Fifth Plan.				
Approved outlay.	Estimated Expenditure.	Total.	Foreign Exchange.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
6	7	8	9	10	11	12	13	14
29.02	14.52	45.52	..	5.04	8.35	10.34	10.81	10.98
42.88	37.15	1,00.05	..	20.90	19.10	22.15	19.45	18.45
7.80	4.53	35.05	..	5.35	6.65	7.10	7.75	8.20
9.42	17.50	2,08.00	..	1,15.00	45.00	25.00	23.00	..
4.00	2.00	25.00	..	11.00	9.50	1.50	1.50	1.50
1.54	1.54	..	..	..	..	..	..	..
1.62	0.14	..	..	..	..	..	..	..
2,51.25	1,44.80	3,13.92	..	1,05.00	1,15.60	43.00	25.00	25.32
4.47	2.68	20.50	..	5.22	5.33	2.95	3.45	3.55
..	..	2.60	0.91	0.52	0.52	0.52	0.52	0.52
..	..	9.75	..	4.60	3.01	0.89	0.74	0.51
3,52.00	2,24.66	7,60.39	0.91	2,72.63	2,13.06	1,13.45	92.22	69.03

## ANNEXURE II

## BASIC INFORMATION ABOUT MINERAL DEVELOPMENT.

## 1. Name and capacity of the Project.—

(i) Name of the Project .. .. .	Quarrying of Basalt stone.
(ii) Location (actual or likely) .. .. .	In the district of Santhal Parganas.
(iii) Nature of the Project—	
(a) New Project .. .. .	New Project.
(b) Expansion of an existing Project .. .. .	
(iv) Projects/output—	
(a) Capacity .. .. .	34 lakhs oft. of stone per year.

## 2. Schedule of Implementation.—

(i) Whether feasibility study/D.P.R. prepared .. .. .	Yes.
(a) By whom .. .. .	By Shri B.B. Sinha, Mining Engineer of the B.S.M.D. Corporation.
(b) Present status whether approved submitted for approval etc. .. .. .	Approved.
(ii) Nature of foreign collaboration required Technical or Financial. .. .. .	..
(iii) Date of start of construction .. .. .	1973-74
(iv) Date of commencement of production .. .. .	1973-74
(v) Achievement of rated capacity likely date .. .. .	1974-75.

## 3. Project Expenditure.—(Rs. in lakhs.)

(i) Land including Railway siding .. .. .	4.00
(ii) Building and Civil Works .. .. .	..
(iii) Machinery and equipment .. .. .	9.75
(iv) Others .. .. .	0.25

## 4. Financing and Execution of the Project.—

(i) Name of executing agency .. .. .	Bihar State Mineral Development Corporation.
(ii) Arrangements for financing .. .. .	Contribution by State Government.
(iii) Source and extent of institution of finance envisaged .. .. .	..
(iv) To what extent internal resources of the company/Corporation are to be deployed. .. .. .	..

## 5. Material Requirements.—

(i) Steel .. .. .	} Will be available from local market.
(ii) Cement .. .. .	

## 6. Employment Potential—

(i) During construction .. .. .	} 560
(ii) After construction—	
(a) Managerial .. .. .	
(b) Technical Engineers and Supervisors .. .. .	
(c) Clerical .. .. .	
(d) Skilled Workmen .. .. .	
(e) Un-skilled women .. .. .	

## ANNEXURE II

## BASIC INFORMATION ABOUT MINERAL DEVELOPMENT.

## 1. Name and capacity of the Project.—

(i) Name of the Project	..	..	..	..	Mining, Calcination and beneficia- tion of Kyanite.
(ii) Location (actual or likely)	..	..	..	..	In the district of Singhbhum.
(iii) Nature of the Project—					
(a) New Project	..	..	..	..	New Project.
(b) Expansion of an existing Project	..	..	..	..	..
(iv) Projects/output—					
(a) Capacity	..	..	..	..	25,000 tonnes per year.

## 2. Schedule of Implementation—

(i) Whether feasibility study/D.P.R. prepared	..	..	..	..	Approved in principle D.P.R. etc. under preparation.
(a) By whom	..	..	..	..	By Shri B.B. Sinha, Mining Engineer of the B.S.M.D. Corporation.
(b) Present status-whether approved submitted for approval etc.					Approved.
(ii) Nature of foreign collaboration required Technical or Financial.				..	..
(iii) Date of start of construction	..	..	..	..	1974-75
(iv) Date of commencement of production	..	..	..	..	1974-75
(v) Achievement of rated capacity likely date	..	..	..	..	1975-76

## 3. Project Expenditure.—(Rs. in lakhs)

(i) Land including Railway siding	..	..	..	..	..
(ii) Building and Civil Works	..	..	..	..	3.20
(iii) Machinery and equipment	..	..	..	..	77.00
(iv) Others	..	..	..	..	12.80

## 4. Financing and Execution of the Projects.—

(i) Name of executing agency	..	..	..	..	Bihar State Mineral Development Corporation.
(ii) Arrangements for financing	..	..	..	..	Contribution by State Government.
(iii) Source and extent of institution of finance envisaged	..	..	..	..	..
(iv) To what extent, internal resources of the Company/Corporation are to be deployed.	..	..	..	..	..

## 5. Material Requirements.—

(i) Steel	..	..	..	..	} Not yet assessed.
(ii) Cement	..	..	..	..	

## 6. Employment Potential.—

(i) During construction	..	..	..	..	} 571
(ii) After construction—					
(a) Managerial	..	..	..	..	
(b) Technical and Engineers and Supervisors	..	..	..	..	
(c) Clerical	..	..	..	..	
(d) Skilled Workmen	..	..	..	..	
(e) Un-skilled women	..	..	..	..	

## ANNEXURE II

## BASIC INFORMATION ABOUT MINERAL DEVELOPMENT.

## 1. Name and capacity of the Project.—

(i) Name of the Project	..	..	..	..	Mining and beneficiation of Graphite.
(ii) Location (actual or likely)	..	..	..	..	In the district of Palamau.
(iii) Nature of the Project—					
(a) New Project	..	..	..	..	New Project.
(b) Expansion of an existing Project	..	..	..	..	
(iv) Projects/output—					
(a) Capacity	..	..	..	..	2,500 tonnes of beneficiation graphite, 500 tonnes of graphite crucibles and 300 tonnes of super grade graphite per year.

## 2. Schedule of Implementation.—

(i) Whether feasibility study/D.P.R. prepared	..	..	..	..	Approved in principle D.P.R. etc. under preparation.
(a) By whom	..	..	..	..	By Shri B.B. Sinha, Mining Engineer of B.S.M.D. Corporation.
(b) Present status-whether approved submitted for approval etc.	..	..	..	..	Approved.
(ii) Nature of foreign collaboration required Technical or Financial.	..	..	..	..	..
(iii) Date of start of construction	..	..	..	..	1975-76
(iv) Date of commencement of production	..	..	..	..	1976-77
(v) Achievement of rated capacity likely date	..	..	..	..	1977-78

## 3. Project Expenditure.—(Rs. in lakhs)

(i) Land including Railway siding	..	..	..	..	..
(ii) Buildings and Civil Works	..	..	..	..	4.50
(iii) Machinery and equipment	..	..	..	..	44.90
(iv) Others	..	..	..	..	36.60

## 4. Financing and Execution of the Projects.—

(i) Name of executing agency	..	..	..	..	Bihar State Mineral Development Corporation.
(ii) Arrangements for financing	..	..	..	..	Contribution by State Government.
(iii) Source and extent of institution of finance envisaged	..	..	..	..	..
(iv) To what extent, internal resources of the Company/Corporation are to be deployed.	..	..	..	..	..

## 5. Material Requirements.—

(i) Steel	..	..	..	..	} Not yet assessed.
(ii) Cement	..	..	..	..	

## 5. Employment Potential.—

(i) During construction	..	..	..	..	} 888	
(ii) After construction—						
(a) Managerial	..	..	..	..		
(b) Technical Engineers and Supervisors	..	..	..	..		
(c) Clerical	..	..	..	..		
(d) Skilled Workmen	..	..	..	..		
(e) Un-skilled women	..	..	..	..		

## ANNEXURE II

## BASIC INFORMATION ABOUT MINERAL DEVELOPMENT.

## 1. Name and capacity of the Project.—

(i) Name of the Project	..	..	..	..	Mining of Magnetite.
(ii) Location (actual or likely)	..	..	..	..	In the district of Palamau.
(iii) Nature of the Project—					
(a) New Project	..	..	..	..	New Project.
(b) Existing of an existing Project	..	..	..	..	..
(iv) Projects/output—					
(a) Capacity	..	..	..	..	25,000 tonnes per annum.

## 2. Schedule of Implementation.—

(i) Whether feasibility study/D.P.R. prepared	..	..	..	..	Approved in principle D.P.R. etc. under preparation.
(a) By whom	..	..	..	..	By Shri B.B. Sinha, Mining Engineer of B.S.M.D. Corporation.
(b) Present status/whether approved submitted for approval etc.	..	..	..	..	Approved.
(ii) Nature of foreign collaboration required	..	..	..	..	Technical or Financial.
(iii) Date of start of construction	..	..	..	..	1974-75
(iv) Date of commencement of production	..	..	..	..	1974-75
(v) Achievement of rated capacity likely date	..	..	..	..	1974-75.

## 3. Project Expenditure.—(Rs. in lakhs.)

(i) Land including Railway siding	..	..	..	..	..
(ii) Building and Civil Works	..	..	..	..	1.00
(iii) Machinery and equipment	..	..	..	..	4.00
(iv) Others	..	..	..	..	10.00

## 4. Financing and Execution of the Projects.—

(i) Name of executing agency	..	..	..	..	Bihar State Mineral Development Corporation.
(ii) Arrangements for financing	..	..	..	..	Contribution by State Government.
(iii) Source and extent of institution of finance envisaged	..	..	..	..	..
(iv) To what extent, internal resources of the Company/Corporation are to be deployed.	..	..	..	..	..

## 5. Material Requirements.—

(i) Steel	..	..	..	..	} Not yet assessed.
(ii) Cement	..	..	..	..	

## ANNEXURE II—concl'd.

6. *Employment Potential.*—

(i) During construction	..	..	..	..	}
(ii) After construction	..	..	..	..	
(a) Managerial	..	..	..	..	
(b) Technical Engineers and Supervisors			..	..	
(c) Clerical	..	..	..	..	
(d) Skilled Workmen	..	..	..	..	
(e) Un-skilled women	..	..	..	..	

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## CHAPTER XVIII

### TRANSPORT AND COMMUNICATION

#### ROAD DEVELOPMENT

The economic growth of the State has suffered a great deal due to poor development of road communications. The length of surfaced and unsurfaced roads per lakh of population in Bihar is much lower than the all-India average and is indeed the lowest among all the States of the Country. Only about 5 per cent of the villages with a population of 1,500 and above are connected by all weather roads. Populationwise, only about 2 per cent of the total rural population of the State has direct access to all-weather roads. Out of 587 Development Block Headquarters as many as 66 are still not connected by all weather roads.

2. The level of achievement at the end of the Fourth Five-Year Plan is expected to be 16,900 Km. of surfaced roads. These comprise of 12,400 Km. of main roads and 4,500 Km. of village roads. Nearly 90 per cent of the road length is single-lane (9'×10' wide) with weak road crust. Nearly 50 per cent of the road length is insufficient for the present day volume of traffic. The length of surfaced roads per lakh of population will work out to about 25 Km. which is less than 50 per cent of the all-India average of 66 Km. The national average of motorable roads is 16 Km. per 100 square Km. whereas the State average will work out to only 8 Km. As regards the unsurfaced roads, the State average by the end of the Fourth Plan is expected to be 78 Km. per lakh of population as against the national average of 116 Km. Thus both qualitatively and quantitatively the road net-work of the State is far below the national average and extremely inadequate.

3. A glaring bottleneck in the intra-State communications is apparent from the fact that the Ganga is bridged only at one point, namely, at Mokameh. For the greater part of its length, the Ganga acts as a barrier between the North and the South Bihar. Poor economic development of large tracts of North Bihar plains with a high potential for agricultural and agro-based industrial development can be largely attributed to absence of direct road links between the South and the North Bihar. With a view to removing this bottleneck, construction of a bridge across the Ganga at Gulzarbagh (Patna) has been taken up in the Fourth Five-Year Plan. The project is under way and as against a provision of Rs. 9 crores during the Fourth Plan the expenditure is anticipated to be about Rs. 14 crores. A large spillover liability will be cast on this account on the Fifth Five Year Plan of road development.

4. The State has special areas with high potential for intensive agricultural development in the plains of North Bihar as also parts of South Bihar. Moreover, there are large tracts of areas growing sugarcane and jute. There are 30 sugar factories whose command area constitutes of nearly 32,400 square Km. The all-weather road network in this area extends to only 3,500 Km. the intensity of road being only about 11 Km. per hundred square Kilometres which is only about 25 per cent of the desirable road intensity recommended by the all-India Road Development Programme for average agricultural area. Jute is grown in about 1,300 square kilometre, 90 per cent of the area being concentrated in the districts of Purnea and Saharsa. This area is traversed by numerous rivers which render transportation very difficult. The road facility in this area is even less than the State average facility which is itself very poor. Besides there are large tracts of forest and mining areas mainly concentrated in the South Bihar. For economic exploitation of these areas, development of road facility is extremely important. Schemes of road development in these areas are taken up as a part of the sectoral development programmes. In the Fourth

Plan the provisions made and the anticipated expenditure for some of these sectors are indicated in the table below :—

————			Fourth Plan outlay [Rs. in lacs) Original.	Revised.	Anticipated expenditure 1969—74 (Rs. in lakhs)	Anticipated physical achievement 1969—74.
1	2	3	4	5		
Sugarcane	.. ..	1,76.00	1,43.00	1,27.07	100 Kms.	
Jute	.. ..	2.00	5.67	7.49	6 Kms.	
Mining	.. ..	2,51.25	1,42.92	1,42.92	125 Kms.	

5. Road facility in the urban complexes in the State also leaves much to be desired. There are 112 local bodies in the State. The total number of towns according to 1971 Census is 202 which include 9 cities with population above one lakh. Responsibility of road construction in the urban areas is that of the local bodies whose financial condition is far from satisfactory. By the end of the Fourth Plan, the total road length in the urban areas is expected to be only 2,560 Km. The achievement in the Fourth Plan is estimated to be of the order of 184 Km. only. The condition of the urban roads is unsatisfactory due to lack of funds with the local bodies for their maintenance with increasing urbanisation, the improvement and extension of urban road net work has assumed great importance.

6. The Road Development Programme is administered by various agencies. Public Works Department is responsible for construction and maintenance of State Highways, major and other district roads and certain rural roads not falling within the jurisdiction of the District Boards. Rural Engineering Organisation set up in the latter part of the Fourth Plan under the Community Development Department is responsible for extension and improvement of rural roads taken up under the Crash Programme. District Boards look after the roads within their jurisdiction whereas the urban local bodies are responsible for the urban road net-work.

7. While the crucial importance of developing the road communication in a State, in which, on one hand, the existing facility is extremely inadequate and poor and on the other, the potential for agricultural, agro-based and forest and mineral based industrial development is very large, cannot be over-emphasised, the size of the effort that can be undertaken in the matter of road development has necessarily to be contained within the framework of the total size of the plan and in the intra-sectoral priorities. Having regard to these factors, it is proposed to provide a sum of Rs. 138 crores for the entire road development programmes. This will work out to 9.2 per cent of the total plan provision which is higher than the percentage allocated for this programme in the Fourth Plan Period which was about 6.4 per cent only. Out of 138 crores, a provision of Rs. 60 crores is earmarked for the rural road development to be undertaken under the National Minimum Needs Programme. It is this element which largely accounts for the increase in percentage allocation for this sector. Besides the Minimum Needs Programme, it is proposed to provide Rs. 3 crores for the District Boards and a sum of Rs. 5 crores for the development of urban roads. For the development of the State High Ways and the major and other district roads and bridges a sum of Rs. 70 crores is proposed.



8. Since the National Minimum Needs Programme visualises a major thrust in the development of rural roads with a view to connecting all villages with a population of 1,500 and above, it assumes the foremost place in the strategy of road development in the Fifth Plan. The programme for development of the State Highways and other District roads and provision of bridges and missing links constitutes the other important element in the strategy. Although the guidelines laid-down by the Planning Commission require that the needs of industrial and mining areas, metropolitan areas, areas served by the special projects and the tourist centre should be taken into account, the constraint on resources has severely restricted the size of road development programme to be undertaken for these purposes. The most important consideration that has been kept in view is the requirement of spill-over scheme from the preceding plan periods. Moreover, the provision of missing links and bridges which will render the existing net-work of roads more useful have been given priority. Attempt has also been made to strengthen the research and development effort so that the utilisation of funds available will be economical and according to well-established priority. Within this frame work, the schemes proposed for the Fifth Plan have been detailed below according to important sectors.

#### MINIMUM NEEDS PROGRAMME.

9. The Programme seeks to provide all weather roads by the end of the Fifth Plan period to all villages with a population of 1,500 persons or more. In hilly areas with more dispersed population, it will be necessary to provide all-weather link roads to a cluster of villages having populations above a minimum size. Detailed exercises have been made to identify villages requiring to be provided with all weather link roads. Accordingly, it has been found that out of 67,566 villages 62,580 villages will not be having all-weather road connection by the end of the Fourth Plan. Out of these villages 6,763 villages will be having a population of 1,500 and above. These villages are proposed to be provided connection by all-weather roads under the Minimum Needs Programme.

10. Districtwise maps were prepared showing existing road net-work and the additions expected by the end of the Fourth Plan so as to ascertain the extent of new construction required to be undertaken to reach the goal set under the Minimum Needs Programme for construction of rural roads. The results of these exercises were scrutinised by the Planning Commission who suggested certain modifications. Accordingly, it is now estimated that new construction of at least 10,000 Kms. of all-weather rural roads will be required to be undertaken. These calculations do not take into account special requirements of the Chhotanagpur and Santhal Parganas region where the terrain is hilly and population more dispersed. It is felt that the size of the effort will have to be further augmented if all weather road connections have to be provided to clusters of villages in this area.

11. While the Minimum Needs Programme for rural roads does not visualise construction of major bridges, it will still be necessary to provide submersible bridges or cause-ways in certain cases. Moreover such rural roads as have been taken up under the Crash Programme and are required to be completed or improved in order to connect villages with a population of 1,500 and above, will have to be completed/improved as an integral part of the Minimum Needs Programme.

12. In course of the deliberations of the working group on the Minimum Needs Programme, Planning Commission indicated that the cost estimate of the construction of new roads under this programme should be exclusive of the cost of land acquisition and earth work. Thus a figure of Rs. 50,000 per K.M. has been indicated. In the State Government's view it is unrealistic to exclude completely both these items from the estimate of cost. While all efforts will be made to keep down the cost of acquisition of land for construction of such roads by trying to obtain land, through the Co-operation of the villagers, either free or at a lower cost, it will be neither possible

nor desirable to expect entire earth work to be done on the basis of voluntary contribution of labour. As is well known, construction of rural roads has a high employment potential. The earth work provides large opportunities for employment of unskilled labour which abounds in the rural areas. Moreover, it is the weaker sections of the society who ordinarily are available for employment on such projects. It will, therefore, be in-advisable to deny opportunity of gainful employment to these section of the society. Moreover, from the past experience it does not also seem feasible to make voluntary contribution of labour for the entire earth work a pre-condition of the implementation of this programme. In view of this, it will be necessary to revise the estimate of cost per km. for construction of new rural roads.

13. At present estimates have been worked out on the basis of the yardstick prescribed by the Planning Commission which work out as follows :—

(Rs. in crores.)					
Serial no.	Item.		Physical target.	Outlay.	
1.	New Construction ..	..	10,00 Kms.	50.00	
2.	Submersible bridges for new construction	..	..	5.00	
3.	Completion/Improvement of the Crash Programme roads spilling over from the Fourth Plan and forming integral part of rural net work of roads under the Minimum Needs Programme.	..	..	5.00	
Total ..				60.00	

14. Required details pertaining to the Minimum Needs Programme have been furnished in two separate statements (Statement III and IIIA), one giving the broad details and the other districtwise breakup and the requirement for the year 1974-75. Yearwise phasing of the outlays under this programme has been indicated in item 6.1 of statement I.

15. As has been said earlier, hilly areas of Chhotanagpur and Santhal Parganas have not been treated on special footing as they should have been. The same yardstick namely, villages with a population of 1,500 and above has been applied to this area also. It is only in the fitness of things that this yardstick is relaxed for the hilly areas and more liberal provision allowed so that all-weather road connections can be provided to clusters of villages in this area. This aspect of the problem has been further discussed with the Planning Commission and the Home Ministry. As a result of these discussions, it was decided to draw up a special programme of rural roads for these areas with a view to providing all-weather road connection to weekly hats and important growth centres in tribal areas. Accordingly a programme has been drawn up for providing 1000 Kms. of rural roads in tribal areas. As regards the estimate of cost per k.m., it is considered that over and above Rs. 50,000 a provision of Rs. 22,000 (Rs. 6,000 for acquisition of land and Rs. 16,000 for earth work) will have to be made if this programme has to succeed in the tribal areas. Accordingly, the cost of estimate per k.m. will work out to Rs. 72,000. The total outlay on this programme would, therefore, be of the order of Rs. 7.20 crores. This outlay has not been provided for in the Plan of Rs. 130 crores for the road development sector. It is expected that a provision of Rs. 7.20 crores for special road development in tribal area will be made outside the plan ceiling.

## STATE HIGHWAYS-MAJOR DISTRICT ROADS AND BRIDGES.

16. A large number of road and bridge schemes are in execution from earlier plans which have necessarily to be completed during the Fifth Five-Year Plan period. Requirement of funds necessary for completion of these on going schemes has to be given the first priority, for in absence of adequate allocations for the purpose, large investments made on these schemes during the past plan periods will remain infructuous. It is only after this requirement is met that other programmes such as improvement and upgrading of the existing facilities and taking up of new schemes can be considered. Having regard to the total size of the plan and inter-sectoral priorities as also the massive size of the rural road development visualised under the Minimum Needs Programme, a provision of Rs. 70 crores is considered feasible for this sector, although comprehensive and accelerated development of roads communications will call for a much larger outlay. Out of Rs. 70 crores, as large an amount as Rs. 52.65 crores is required for completion of spill over schemes of road and bridges. Of the remaining, Rs. 10.75 crores are proposed for taking up missing road and bridge links on the existing net-work of road communication. These schemes are more in the nature of supplementing or rendering more useful the existing net-work of road communications. A provision of Rs. 6.6 crores is visualised for establishment, tools and plants, survey and investigation, advance planning research and training.

**Spill over schemes**

17. The spill over schemes of roads come under two categories namely, (a) improvement of roads of low grade sections and (b) upgrading of existing facilities. Under (a) above, a provision of Rs. 19.57 crores is proposed. It consists of (i) State Highways/Major District Roads (Rs. 16.46 crores), (ii) Central Road Fund Allocation (Ordinary) Roads (Rs. 0.64 crores) and (iii) other District Roads (Rs. 2.47 crores). The total road length involved in those spill over schemes is 4,274 kms. The work that remains to be completed is equivalent to surfacing 1,320 kms. comprising of 1,184 kms. of the State Highways and Major District Roads and 136 other District Roads. There are now 157 such spill over schemes. Phasing of the financial outlay for the Fifth Five Year Plan has been worked out keeping in view stages of construction of the spillover schemes and requirement thereof. Although schemewise details are available, for the sake of brevity, schemes have been grouped districtwise and a summary statement appended giving necessary details (vide statement (A, B and C.)

18. The other important area pertaining to spillover road, schemes concerns upgrading/ strengthening of the existing facilities. In the past, due to the need for rapid expansion of road mileages, roads were designed and constructed with the bare minimum specifications which were considered adequate for the then traffic needs. With the increase in traffic, widening and strengthening of such roads have assumed urgency. On the basis of traffic census of the existing roads, it has been found that traffic on most of the roads has increased 4 to 5 times over the last decade. As a result, 4,600 kms. of roads urgently require upgrading. These roads mainly connect major district and divisional headquarters and other growth centres. In the Fourth Five Year Plan, 845 kms. of such roads were undertaken for up-gradation. The total cost of the scheme is estimated to be of the order of Rs. 11.75 crores. During the Fourth Plan, due to paucity of funds only Rs. 1.26 crores could be provided. It is proposed to provide Rs. 10.25 crores during the Fifth Plan under this head, Although the full schemewise details are available, for the sake of brevity, schemes have been grouped districtwise and summary statement furnished giving necessary details (vide statement "D")

19. The next important ingredient of the spillover scheme concerns bridges and over-bridges. The total requirement for this purpose is assessed at Rs. 22.82 crores of which Rs. 21.55 crores is the requirement of the Ganga Bridge at Patna. A

provision of Rs. 1.27 crores is required for completion of 5 bridges including 3 over bridges which are in progress. The major schemes pertain to (a) bridge over river Sikrahana on Motihari-Dhaka road at Belwaghat (Rs. 21 lakhs), (b) Bridges over Burhi Gandak on Samastipur-Rosera road at Singhia Ghat (Rs. 35 lakhs) and rail over-bridges at Ranchi and Samastipur (Rs. 28 lakhs) and Rs. 21 lakhs respectively. There are other requirements pertaining to 4 other bridge schemes ranging from 4 lakhs to Rs. 7 lakhs.

20. Crucial importance of the bridge across Ganga at Patna for economic development of agrarian region of the North Bihar has already been referred to. The work on the bridge started in June 1972. The bridge includes:

- |                                     |    |    |                        |
|-------------------------------------|----|----|------------------------|
| (a) the main bridge“ ..             | .. | .. | 5,575 metre long;      |
| (b) Four lane wide North approach.. | .. | .. | 5,953 metre long ;     |
| (c) Four lane wide South approach   | .. | .. | 2,448 metre long ; and |
| (d) Fly-over on the South approach  | .. | .. | 966 metre long.        |

Originally the estimate of cost was of Rs. 23.50 crores. Revised estimate comes to Rs. 35.53 crores. The increase in the estimated cost is mainly on account of—

- (a) provision for foundation for a four lane road bridge,
- (b) provision of 2 metre foot-path on both sides and 3 passing lanes,
- (c) increase in the cost of materials and land acquisition and inclusion of the cost of rehabilitation project.

21. A provision of Rs. 9 crores was envisaged during the Fourth Plan against which anticipated expenditure is of the order of Rs. 15 crores. The spillover requirement during the Fifth Five-Year Plan is assessed at Rs. 21.55 crores.

22. The State Government have moved the Ministry of Transport and Communication, Government of India for inclusion of the road from Patna to Sonbarsa via Muzaffarpur and Sitamarhi in the list of the National Highways. There is adequate justification for treating this road, as a National Highway. It is hoped that this proposal will find favour with the Government of India in which case the Ganga Bridge will become the part of the National Highway net-work. Having regard to the importance of the project and its crucial location in the net work of road communication in the Eastern region, there is full justification for treating this project as a National Project. If this is done; it will be possible to release the provision from this on-going project for taking up other urgent new road development schemes which need to be taken up as per the guidelines indicated by the Planning Commission but whose inclusion in the Fifth Five Year Plan has not been possible due to paucity of funds.

23. Statement 'E' furnished necessary schemewise details pertaining to on-going bridge schemes.

24. Although there is urgent need for taking up large scale development of new roads, the limiting factor is the paucity of resources. Indeed, the schemes proposed to be taken up under the head of new schemes are essentially missing links of roads and bridges on the existing net work on the road communication. On a priority basis, 19 such scheme have been identified which involve 383 kms. with an outlay of Rs. 7.66 crores. Of these again only 8 schemes involving 175 kms. are proposed to be taken up during the Fifth Five Year Plan. The outlay required is of Rs. 3.50 crores. Statement "F" furnishes schemewise details.

25. There are several missing bridges on otherwise completed roads or road net work, as a result of which the utilization of road capacity is not optimal. The gaps are caused by perennial rivers which cause disruption of traffic. 27 Major bridges come under this category. The total requirements of funds for this purpose is estimated at Rs. 17.99 crores. However, due to paucity of funds, it is proposed to take up 22 schemes only which are estimated to cost Rs. 7.25 crores during the Fifth Five Year Plan. Schemewise details have been furnished in the Statement "G".

#### Miscellaneous Advance Planning/Research/Training and Equipment

26. With rapidly rising cost of construction it is imperative to continue the system of advance planning and strengthen Survey, Research and Training. The latter is necessary to introduce new technology with a view to observing time schedule and to reduce cost by using new construction techniques and new indigenous materials. Provision is also necessary for acquisition of essential construction equipment. A provision of Rs. 660 lakhs has, therefore, been made in the Fifth Five-Year Plan under this heading.

It is proposed to undertake traffic and road accidents studies to identify traffic requirements of different highways and the need for improvement of accident prone spots. Testing and Control laboratories would be also strengthened as these would help in formulation of technically and economically viable projects.

Provision has been earmarked for research and development, adequate road-building machinery, besides road safety measures and road-side amenities necessary to cater to the growing needs of road traffic with particular reference to tourist traffic.

27. A road map indicating (i) existing roads, (ii) road construction programme likely to spill over from the Fourth Plan, and (iii) new schemes proposed to be taken up in the Fifth Plan is also enclosed.

#### Man-power requirement

28. The implementation of the programme would create massive employment of labour force and will go a long way in reducing unemployment. It is estimated that every crore of outlay would create direct employment opportunity of 10,000 mandays for unskilled labour, 2,500 mandays for semi-skilled labour and 500 mandays for skilled labour. Based on probable 20 per cent average annual outlay the annual employment potential in mandays would be as follows :—

	Estimated outlay for Fifth Five-Year Plan in crores.	Average yearly outlay at the rate of 20 per cent of the total outlay.	Labour potential in lakh manday per year.		
			Unskilled at the rate of 10,000 manday per lakh outlay.	Semi-skilled at the rate of 2,500 lakh manday per lakh outlay.	Skilled at the rate of 500 mandays per lakhs outlay.
1	2	3	4	5	6
1. Road Programme (excluding MNP).	70.00	14.00	1,40.00	35.00	7.00
2. Minimum Needs Programme.	60.00	12.00	1,20.00	30.00	6.00

*Technical personnel*

29. The following are the estimates of additional technical personnel required to be recruited every year for implementation of the programme. The estimate includes staff required for construction and a small quantum (15 per cent) that would be employed by contracting agencies :—

Category.	Annual average require- ment.	
	Road Development excluding M.N.P.	M.N.P.
Degree Holder (Engg.) ..	75	128
Diploma Holder (Engg.) ..	235	206
Other Technical staff ..	185	178

*Materials and equipment*

30. Approximate requirement of materials for implementation of the proposed Plan would be :—

	First year.		Subsequent year.	
	Road Development excluding M.N.P.	M.N.P.	Road Development excluding M.N.P.	M.N.P.
1	2	3	4	5
Mild Steel (M.T.) .. ..	7,000	1,000	7,000	1,500
H.T. Steel (M.T.) .. ..	500	..	500	..
Cement (M.T.) .. ..	32,000	3,000	32,000	7,500
Bitument (M.T.) .. ..	6,000	3,000	6,000	14,000

An assessment of the additional requirement of road building machinery is given below :—

(In numbers).

	First year.	
	Road (excluding M.N.P.)	M.N.P.
(1) Road Roller .. ..	70	125
(2) Tandam Roller .. ..	30	..
(3) Bitumen Heater .. ..	40	125
(4) Asphalt Mixer .. ..	20	..
(5) Cane Mixer .. ..	40	30
(6) Cane Vibrater .. ..	50	30
(7) Jeep .. ..	10	35

## URBAN ROADS.

31. According to 1971 Census total number of towns in the State has risen to 202 from 153 in 1961. Out of 202 towns, 9 come under the category of cities as they have a population of 1 lakh or more. There are in all 112 Local Bodies in the State. Not all the towns are at present covered by the Local Bodies. However, in due course such Bodies will be established in the rest of the towns also.

32. The total road length in the Cities and Towns covered by the Municipalities, Notified Area Committee and Improvement Trusts was roughly 2,376 kms. at the beginning of the Fourth Five Year Plan. It is expected to go up to 2,560 kms. by the end of the Fourth Five Year Plan. Except in Patna, Muzaffarpur Gaya and Ranchi where Improvement Trusts have been established the work of construction and maintenance of urban road is looked after by the Municipalities and N. A. Cs. performance of the Local Bodies, in respect of new construction of urban roads is poor mainly because of their difficult resource position.

33. According to the assessment made, the requirement of funds for new construction and improvement of urban roads during the Fifth Five Year Plan comes to Rs. 16 crores. However, in view of the constraint of the size of the plan, a provision of Rs. 5 crores only is being proposed for construction roads.

## OTHER RURAL ROADS—DISTRICT BOARDS/ZILA PARISHADS.

34. The State Government have been giving financial assistance to District Boards/Zila Parishads for construction/improvement of roads and bridges. During the Fourth Five Year Plan an outlay of Rs. 3,20 lakhs was provided for the purpose. A part of this outlay was diverted for being spent on execution of crash programme through the Rural Engineering Organisation. A total outlay of Rs. 1,85.13 lakhs was made available to District Boards/Zila Parishads which is expected to be utilised almost fully. Out of these funds, 179 kms. of District Board roads are expected to be improved by the end of the Fourth Plan. During the Fifth Five Year Plan it is proposed to provide Rs. 3,00 lakhs for construction/improvement of the District Board roads. The following table indicates the yearwise break-up of allocation proposed :—

Serial no.	Head/Sub-Head/Scheme.	Fifth Plan Outlay, 1974-75.	Annual Plan.				
			1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8
Rural Roads (D. B. Roads).							
1	Improvement to other District Roads.	2,00.00	40.00	40.00	40.00	40.00	40.00
2	Strengthening and remodelling of bridges.	1,00.00	20.00	20.00	20.00	20.00	20.00

## ROAD TRANSPORT.

35. At the beginning of the Fourth Five-Year plan, the public sector buses were operating on about 40 per cent of the total route kilometrage of the State viz. 88022 Kms. There has been a rise of 25967 K.M. in this route kilometrage during the Fourth Five-Year Plan period. The coverage of these routes by public transport has also increased considerably and now it accounts for 51 per cent of the total route kilometrage. At the beginning of the Fourth Five-Year Plan, a sum of Rs. 502.11 lakhs was provided for replacement of 606 buses. The Fifth Five-Year plan envisages replacement of 476 buses involving a cost of Rs. 452.20 lakhs only. The Fifth Five-Year plan of road transport seeks to cover 54.6 per cent of the total route kilometrage of the State. Besides this coverage, the nationalised buses are also plying in certain routes where the private buses are also operating. The kilometrage of such routes has decreased to 17.4 per cent in 1973-74 and it is further likely to fall to 16.1 per cent by the end of the Fifth plan.

36. Of the total buses plying in the State, the State buses accounted for 32 per cent at the beginning of the Fourth plan. It is anticipated that of the total buses plying in the State, by the end of Fourth plan, 39.3 per cent would be the State buses. The Fifth Five-Year plan visualises that this percentage will increase to 46.2 per cent.

37. During the Fourth plan 607 new buses (excluding those purchased for replacement) would have been purchased. This comprises 555 buses for the existing routes and 152 for the new routes. The Fifth plan visualises purchase of 836 new buses (excluding 476 buses to be purchased on account of replacement) of which 635 will be for the existing routes and 221 will be for new routes. The road under-taking of the State has not only kept pace with the requirement of increased kilometrage, but has also been able to cope with the demand of urban transport in cities of Ranchi, Jamshedpur, Bokaro and Patna.

38. During the 4th Five-Year Plan period, the Bihar State Road Transport Corporation had a total plan of Rs. 639.22 lakhs as below :—

State Government	..	Rs. 353.00 lakhs.
Railways	..	Rs. 176.50 lakhs.
Land from the market	..	Rs. 109.72 lakhs.
<b>TOTAL</b>	..	<b>Rs. 639.22 lakhs.</b>

The total number of schedules expected to be operated by this Corporation by the end of the 4th Five-Year Plan period is 1,357. The daily coverage will be 8.51 crores Kms. The route Kilometre would be 58,500 Km. per day.

39. During the 5th Five-Year Plan period, Bihar State Road Transport Corporation's total investment is expected to be following :—

State Government	..	Rs. 600.00 lakhs.
Railways	..	Rs. 300.00 lakhs.
Investment from internal resources.		Rs. 200.00 lakhs.
<b>TOTAL</b>	..	<b>Rs. 1100.00 lakhs.</b>



During this period, total number of schedules of the State Road Transport Corporation is expected to go up to 2042 with 15.45 crores effective Kms. and 73,700 route Kms. per day. The operational efficiency of the Bihar State Road Transport Corporation is expected to increase during this period and hence an estimated investment of Rs. 200.00 lakhs from internal resources has been envisaged.

40. A map of the State indicating the route on which nationalised road transport services are operating and the new routes proposed to be taken up in the Fifth plan is enclosed.

41. Detailed information on the performance of the State Road Transport and showing comparative financial outlays on the Fourth and the Fifth plan has been given in Statement IV, V and VI.

### INLAND WATER TRANSPORT.

42. Though this State has adequate natural facilities for development of inland water transport service, nothing appreciable has been done in this direction so far. This has been mainly because of lack of reliable data and financial resources. Lack of transshipment facilities both for materials and for people on several communicable points in river Ganga have caused immense hardship to the people and have also affected the developmental programmes of specially North Bihar. To remove this bottleneck, several useful plans on inland water transport service had previously been furnished to the Ministry of Transport and Communication. However, none of these could find favour with the Government of India. During Fifth Five Year-plan, State Government propose to make hydrographic and traffic surveys to facilitate the introduction of Inland Water Transport Service in the State. For this purpose, it is necessary to set up following organizational units involving an expenditure of Rs. 10 lakhs during the 5th Plan—

- (a) Headquarter Technical Organisation.
- (b) Traffic Survey Unit.
- (c) Hydrographic Survey Unit.

In addition to setting up these organisations it is also proposed to purchase boats and necessary survey materials and equipments during the Fifth Plan, the total cost of which has been estimated to be Rs. 5 lakhs.

43. Schemewise outlay on Inland Water Transport has been indicated at Statement IX.

### TOURISM.

44. According to the guidelines furnished by the Planning Commission provisions should be made on basic amenities at places which possess potentiality of tourist attraction. The development of archeological monuments, conservation of flora and fauna and enlargement of facilities for pilgrims require sufficiently big outlays on the sector of tourism in the Fifth Five-Year plan of the State. However, having regard to the constraint on the total size of the State plan and intra sectoral priorities it has been possible to provide only an outlay of Rs. 30 lakhs as against the outlay of Rs. 20 lakhs of Fourth Five-Year Plan.

45. Even though the outlay on tourism in the Fourth Plan was Rs. 20 lakhs, the anticipated expenditure during this period is about Rs. 24 lakhs. The Fourth Five-Year Plan schemes envisaged expansion of tourist organisation, extension of transport facilities, enlargement of publicity wing on tourism, establishment of new tourist information centres, rest houses and reception centres at places of tourist's interests. By the end of 1973-74 the tourist information centre-cum-cafetaria at Bodh-

gaya and expansion of tourist banglow at Netarhat would be completed. The landmark of achievement of tourism in the 4th Five-Year Plan was the commissioning of the aerial ropeway chair lift at Rajgir.

46. During the last decade (1961—1971) the increase of foreign tourists in Bihar has been fourfold and that of the Indian tourists has been about 12 times. During the Fifth Five-Year Plan it is proposed to provide Rs. 30 lakhs on the following eight schemes:—

<i>(Rupees in lakhs.)</i>	
1. Beautification and Development of places of tourist attraction	2.00
2. Construction and Establishment of Tourist Rest Houses and Cottages.	8.00
3. Construction of Buildings of Tourist Information Centres-cum-Cafeteria.	5.00
4. Establishment and Expansion of Tourist Information Centres and Reception Centres.	2.00
5. Transport Facility .. .. .	3.00
6. Tourist Publicity .. .. .	4.00
7. Expansion and strengthening Administrative set up including Planning and Training personnel.	4.00
8. Renovation and Maintenances of Youth Hostels ..	2.00
TOTAL ..	.. <u>Rs. 30 lakhs only</u>

In the formulation of these schemes the strategy has been to develop and beautify both existing as well as potential places of tourists' attraction.

47. Detailed information showing schemewise outlays proposed on tourism in the 5th Five-Year Plan is at a Statement 'X'.

## STATEMENT A.

Abstract of amount required for spill over S.H.M.D.R. Schemes in the Fifth Five Year-Plan.

(Rupees in lakhs.)

Serial no.	District.	Length in K.M.	A/A.	Anticipated cost.	Expenditure up to March, 1973.	Likely expenditure in 1973-74.	Amount of spill over to Fifth Five-Year Plan.
1	2	3	4	5	6	7	8
1	Patna .. ..	264.92	3,17.27	3,63.51	1,70.49	7.30	1,85.72
2	Gaya .. ..	126.40	80.06	1,06.06	59.69	5.18	41.19
3	Shahabad .. ..	152.20	1,09.79	1,92.77	89.20	8.50	95.07
4	Saran .. ..	275.98	1,65.09	1,82.59	1,37.46	1.40	43.73
5	Champanan .. ..	95.20	90.18	1,06.20	52.26	0.70	53.24
6	Muzaffarpur .. ..	370.86	2,65.32	3,11.99	1,86.75	9.00	1,16.24
7	Darbhanga .. ..	644.24	4,87.65	7,04.46	3,36.49	11.50	3,56.47
8	Purnea .. ..	375.40	3,15.09	4,80.22	2,37.30	5.92	2,37.00
9	Saharsa .. ..	166.40	1,51.67	2,10.89	1,18.12	4.10	88.67
10	Monghyr .. ..	122.80	90.08	1,38.20	68.06	2.09	68.05
11	Bhagalpur .. ..	97.20	63.48	64.22	48.27	1.70	14.25
12	Santhal Parganas .. ..	97.60	62.22	68.88	49.21	2.75	16.92
13	Ranchi .. ..	282.80	1,11.74	1,72.83	1,26.56	3.66	42.61
14	Palamau .. ..	242.40	1,59.10	2,09.34	1,30.38	1.98	76.98
15	Hazaribagh .. ..	96.70	53.90	2,51.31	1,48.58	9.31	93.42
16	Singhbhum .. ..	151.30	99.62	1,91.38	77.50	4.12	1,09.76
17	Dhanbad .. ..	29.50	18.97	19.07	11.69	0.80	6.58
TOTAL .. ..		3,591.90	26,41.23	37,73.92	20,48.01	80.01	16,45.90

## STATEMENT B.

Abstract of amount required for spill over C.R.F. (ordinary) allocation Schemes in the Fifth Five-Year Plan.

(Rupees in lakhs.)

Serial no.	District.	Length in K.M.	A/A.	Anticipated cost.	Expenditure up to March, 1973.	Likely expenditure in 1973-74.	Amount of spill over to Fifth Five-Year Plan.
1	2	3	4	5	6	7	8
1	Gaya .. ..	17.00	13.00	14.34	..	6.00	8.34
2	Shahabad .. ..	72.00	35.56	41.36	30.11	2.25	9.00
3	Champanan .. ..	28.80	8.84	8.84	4.82	0.10	3.92
4	Darbhanga .. ..	37.60	31.05	37.44	28.57	0.67	8.20
5	Bhagalpur .. ..	114.00	81.86	98.35	39.89	24.12	34.34
6	Hazaribagh .. ..	14.40	7.00	7.00	4.39	0.02	0.61
TOTAL .. ..		283.80	1,79.31	2,07.33	1,07.78	35.14	64.41

## STATEMENT C.

Abstract of amount required for spill over O.D.R. Schemes in Fifth Five-Year Plan.

*(Rupees in lakhs)*

Serial no.	District.	Length in K.M.	A/A.	Anticipated cost.	Expenditure up to March, 1973.	Likely expenditure in 1973-74.	Amount of spill over to Fifth Five-Year Plan.	
1	2	3	4	5	6	7	8	
1	Champaran ..	..	36.80	20.00	20.00	9.60	0.10	10.30
2	Muzaffarpur ..	..	40.40	21.50	27.76	20.29	1.00	6.47
3	Darbhanga ..	..	25.60	8.53	14.90	8.68	0.25	5.97
4	Monghyr ..	..	84.80	34.96	69.18	26.07	1.75	41.36
5	Purnea ..	..	84.00	37.75	1,54.82	30.53	2.55	1,21.74
6	Santhal Parganas ..	..	64.00	21.43	21.43	11.37	1.00	9.06
7	Singhbhum ..	..	33.60	7.93	23.78	2.51	0.50	20.77
8	Dhanbad ..	..	28.80	42.50	48.00	15.54	1.00	31.46
	<b>TOTAL ..</b>	..	<b>398.00</b>	<b>1,94.60</b>	<b>3,79.87</b>	<b>1,24.59</b>	<b>8.15</b>	<b>2,47.13</b>

## STATEMENT D.

Abstract of amount required for spill over strengthening and widening schemes in the Fifth Five-Year Plan.

(Rupees in lakhs.)

Serial no.	District.	Length in K.M.	A/A.	Anticipated cost.	Expenditure up to March, 1973.	Likely expenditure in 1973-74.	Amount of spill over to Fifth Five-Year Plan.
1	2	3	4	5	6	7	8
1	Shahabad .. ..	154.80	1,38.40	2,78.48	0.25	3.00	2,75.23
2	Saran .. ..	149.23	1,72.71	1,76.79	26.50	15.00	1,35.29
3	Champanan .. ..	58.00	..	1,16.00	..	..	1,16.00
4	Muzaffarpur .. ..	74.60	53.64	1,11.57	5.00	..	1,06.57
5	Darbhanga .. ..	104.00	46.92	1,58.92	9.00	4.00	1,45.92
6	Monghyr .. ..	121.60	1,26.83	1,46.83	42.10	14.00	90.73
7	Saharsa .. ..	32.00	..	64.00	..	..	64.00
8	Purnea .. ..	116.93	91.77	95.79	14.76	10.00	71.03
9	Bhagalpur .. ..	34.00	23.96	26.75	2.00	4.00	20.75
	TOTAL .. ..	845.46	6,54.31	11,75.13	99.61	50.00	10,25.52

## STATEMENT E.

## Statement of Spill over Schemes (Bridge and Over bridges).

(Rupees in lakhs)

Name of Schemes.	Administrative Approval.		Anticipated amount to complete the work.	Expenditure up to March, 1973.	Likely expenditure in 1973-74.	Amount of spill over in 5th plan.	Remarks
	Amount.	Date.					
1	2	3	4	5	6	7	8
1 Construction of bridges over river Bhaishahi in Bhojpur-Dumri Road.	3.54	13-10-1966	6.54	0.10	1.00	5.44	
2 Construction of bridge over river Goithawa in 5th mile of Bihar-Barbigha road.	13.40	22-2-1967	13.40	5.03	1.00	7.37	
3 Construction of Screw pile bridge over river Ramjan.	3.00	5-9-1964	6.00	0.96	0.05	4.99	
4 Construction of bridge on river Sikrahna in Motihari Dhaka Belwaghat road.	34.69	9-8-1971	34.69	12.00	2.00	20.69	
5 Construction of a bridge on river Burhi Gandak in Samastipur-Rosera road on Singhia-ghat.	40.25	12-10-1972	40.25	..	5.00	35.25	
6 Ganga Bridge at Patna ..	2,540.00	13-5-1970	3,555.00	715.00	685.00	2,155.00	
7 Railway over bridge at Ranchi in Ranchi Chaibasa road.	56.13	16-11-1970	37.81	10.03	..	27.78	
8 Railway over bridge at Samastipur on Samastipur-Darbhanga road.	45.17	10-10-1972	26.04	..	5.00	21.04	
9 Railway over bridge at Begusarai on Begusarai Mani-haul road.	13.02	19-9-1972	7.51	..	3.00	4.51	
TOTAL ..	2,749.20		3,727.24	743.12	705.02	2,282.07	

## STATEMENT F.

Statement showing the list of Missing links (New Schemes) in the Fifth Five-Year Plan.

(Rupees in lakhs.)

Name of schemes.	District.	Kilometer.	Cost in Rs. lakhs.	Remarks.
2	3	4	5	6
1 Badopur-Sarmera .. ..	Patna .. ..	18	36.00	
2 Imamganj-Manatu .. ..	Gaya .. ..	32	64.00	
3 Karasin-Mathurapur .. ..	Gaya .. ..	18	36.00	
4 Adhwara-Shergarh .. ..	Shahabad .. ..	16	32.00	
5 Jiradai-Ander .. ..	Saran .. ..	10	20.00	
6 Katia-Semra .. ..	Saran .. ..	16	32.00	
7 Gobindganj-Bhawanipur .. ..	Champaran .. ..	16	32.00	
8 Pupri-Chorouth .. ..	Muzaffarpur .. ..	10	20.00	
9 Bisfi-Kamtaul .. ..	Darbhanga .. ..	10	20.00	
10 Madhubani-Tinuahi .. ..	Darbhanga .. ..	26	52.00	
11 Gerua-Jhokihat .. ..	Purnea .. ..	21	42.00	
12 Semri-Bakhtiarpur-Bariahi .. ..	Saharsa .. ..	33	66.00	
13 Dhuraiya-Sonaula .. ..	Bhagalpur .. ..	13	26.00	
14 Guhrajori-Ramgarh .. ..	Santhal Parganas .. ..	32	64.00	
15 Chatra-Katkumsandi .. ..	Hazaribagh .. ..	24	48.00	
16 Hatgamarha-Bhazbharra .. ..	Singhbhum .. ..	25	50.00	
17 Barwadih-Bhandaria .. ..	Palamau .. ..	41	82.00	
18 Behia Satampur missing link starting from Behea chok on Arrah-Buxar road to 0 mile of Behea-Salempur road.	Sahabad .. ..	2	4.00	
19 Jamtara-Nirsa .. ..	Santhal Parganas .. ..	20	40.00	
	Total .. ..	383	766.00	

NOTE.—Serials 2, 9, 12, 13, 15, 17, 18 and 19 are proposed to be taken up during 5th plan period involving a cost of Rs. 350.00 lakhs only.

## STATEMENT G.

Statement showing the list of missing major bridges (New Schemes) in the Fifth Five-Year Plan.

Serial no.	Name of road.	River crossing.	Approx. waterways in meter.	Estimated cost in lakhs of Rs.	Present crossing facility.	Remarks.	
1	2	3	4	5	6	7	
1	Kishanganj-Taiabpur-Thakurganj-Galgalia.	Donk (on Pothia link).	100	15.00	..	This is a missing gap and full utility of the road is not derived without this bridge.	
2	Katra-Manihaulia..	.. Gaps ..	..	440	66.00	..	Ditto.
3	Atri-Jethian-Tapoban-Banganga	Paimar	..	233	35.00	..	Ditto.
4	Nirsa-Jamtara ..	.. Barakar	..	233	35.00	..	Ditto.
5	Hazipur-Sonepur	.. Gandak	..	1,000	300.00	..	Ditto.
6	Bridge in Darbhanga town near Purnea Kilaghat and C. M. College over river Bagmati.	Bagmati	..	90	22.00	..	Ditto.*
7	Paimar Bridge on Atri-Jethian road.	Paimair	..	80	12.00	..	Ditto.
8	Ekangersarai-Islampur-Kewali Rajauli-Rajgir-Giriyak.	Mohane	..	83	13.00	..	This is a missing gap of the road and without this bridge full utility of the road cannot be derived.
9	Ditto ..	.. Paimar	..	170	25.00	..	
10	Ditto ..	.. Panchane (Submersible bridge).	..	233	21.00	..	
11	Ditto ..	.. Sakri	..	200	30.00	..	
12	Asarganj-Shambhuganj	.. Gangti	..	50	8.00	..	This is a missing gap of the road and without this bridge full utility of the road cannot be derived.
13	Ditto ..	.. Barna ..	..	117	18.00	..	Ditto.
14	Ditto ..	.. Baruar Spill	..	47	7.00	..	Ditto.
15	Ichagarh Situ-Banta-Murli Gole	Subernrekha	..	100	15.00	..	This is a very important road connecting Gola Situ Ichagarh and steel plant at Jamshedpur. Without this bridge full utility of the road is not being achieved. The road also passes through mineral area.
16	Gaya-Panchananpur-Daudnagar	Poonpoon	..	200	30.00	..	The bridge is essential for developing the missing gap for developing the areas.
17	Patna-Manatu ..	.. Jinjoy	..	83	13.00	..	This is a missing link of the road from Daltonganj Manatu. Full utility of the road is not derived without this bridge.



## STATEMENT G.—concl'd.

Serial no.	Name of road.	River crossing.	Approx. waterways in meter.	Estimated cost in lakhs of Rs.	Present crossing facility.	Remarks.
1	2	3	4	5	6	7
18	Garhwa-Godermana	.. Kanhar	..	34	5.00	.. This is an inter-State link joining Ambikapur in Madhya Pradesh and Garhwa in Bihar, the construction of this bridge is therefore essential.
19	Darbhangha Baheri.Singhia-Rosera road.	Karch ..	..	200	30.00	.. This is a very important road and full utility of the road is not derived without the bridge.
20	Sitamarhi-Sheohar-Belwaghat	Bagmati	..	270	35.00	.. This is an inter-district road connecting Sitamarhi with Motihari. Full utility of this road is not being derived without the bridge in the gap.
21	Hasua-Khanwa ..	.. Nala ..	..	34	5.00	.. The road is not fully utilised owing to the gap.
22	Chapra Rewaghat	.. Gandak at Rewaghat		800	150.00	** When the bridge is constructed there will be a direct link between Muzaffarpur and Saran district.
23	Chakiya Madhuban	.. Sikrahna	..	275	40.00	.. Full utility of the road is not derived for want of this bridge.
24	Maheshkunt-Saharsa	.. Dumrighat Kosi river.		4,700	700.00	** The construction of this bridge over river Kosi is important at Dumrighat as it will open a direct connection with N. H. 31 and other important routes. The trade and other things will develop fast if the bridge is made.
25	Katihar-Sonaili ..	.. Unbridged gap	..	120	18.00	.. For full utility of the road the construction of the bridge is essential.
26	Motihari-Madhubanghat	.. Sikrahna	..	275	40.00	.. Ditto.
27	Gaya-Nawada (Near Gaya)	Falgoo	..	..	121.00	..
TOTAL ..					1,799.00	

NOTE.—Serials 1, 2, 3, 4, 8 to 14, 15 to 22, 25 to 27 are proposed to be taken up during Fifth Five-Year Plan involving a cost of Rs. 725.00 lakhs only.

**ROADS STATEMENT I.**

**Abstract of Road Development Programme in Fifth Five-Year Plan.**

Serial no.	Items.	Total cost of the scheme on 1-4-1974.	Fourth Plan outlay (1969-75).	Likely ex. up to 31-3-1975 (1969-74).	Proposed outlay for Fifth Plan.						Remarks.
					1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12
	Scheme for removal of deficiencies in the existing system—										
1.1	Missing road links .. (N)	350.00	..	..	49.00	60.00	70.00	80.00	91.00	350.00	
1.2	Spill over bridges including Ganga bridge at Patna.	2,282.04	1,110.00*	1,500.38	593.24	524.88	456.52	388.04	319.46	2,282.04	Includes Ganga bridge, railway overbridges and other bridges in progress from previous plans. *Includes a sum of Rs. 450 lacs loan assistance outside plan ceiling of P. W. D. for Ganga bridge at Patna.
	Missing bridges including Ganga (N) bridge at Patna.	725.00	..	..	102.00	123.00	145.00	167.00	188.00	725.00	
1.3	Improvement to low grade section (S)	4,361.12	1,420.50	1,334.99	508.93	450.21	391.50	332.76	274.04	1,957.44	
	Improvement to low grade section (N)	..	136.00	..	..	..	..	..	..	..	
1.4	Replacement of existing weak minor bridge. (S)	..	..	..	..	..	..	..	..	..	Included in item 1.2.
1.5	Strengthening weak pavements (S)	1,025.52	500.00	126.74	266.64	235.87	205.10	174.34	143.57	1,025.52	
1.6	Minor bridges ..	..	..	..	..	..	..	..	..	..	Included in item 1.2
4	Miscellaneous e. g. Establishment Tools and Plants, Research I. B. etc. (S)	520.00	..	..	85.00	95.00	105.00	115.00	120.00	..	
	(N)	140.00	..	..	7.40	17.20	27.00	36.80	51.60	..	
	(T)	660.00	186.50	494.14	92.40	112.20	132.00	151.80	171.60	660.00	

5	Of which total	..	7,000.00	3,353.00	3,457.49	1,612.21	1,506.16	1,400.02	1,293.94	1,187.67	7,000.00	*This includes a sum Rs. 450 lacs as loan assistance outside plan sector for Ganga bridge at Patna.
5.1	Spill over from Fourth Plan	..	5,265.00	3,353.00	3,457.49	1,368.81	1,210.96	1,053.02	895.14	737.07	5,265.00	
5.2	Net work to be taken during Fifth Plan.		1,075.00	..	..	151.00	183.00	215.00	247.00	279.00	1,075.00	
5.3	Miscellaneous e. g. establishment, Tools and Plants etc.		660.00	..	..	92.40	112.20	132.00	151.80	117.60	660.00	
6	The break up of the programme may also be given as under—											
TOTAL—P.W.D. ROAD SECTOR			7,000.00	..	..	1,612.21	1,506.16	1,400.02	1,293.92	1,187.67	7,000.00	
6.1	Minimum needs programme (connecting villages with population of 1,500 and above).		6,000.00	..	..	1,000.00	1,250.00	1,400.00	1,250.00	1,100.00	6,000.00	This falls under R.E.O. programme.
6.2	TOTAL	..	13,000	..	..	2,612.21	2,756.16	2,800.02	2,543.94	2,287.67	13,000.00	

NOTE.—(S) Stands for spill over scheme.

(N) Stands for New Scheme.

(R) Stands for rural roads.

## STATEMENT II.

## Physical Programme for Road Development in the Fifth Plan.

(In Kilometers.)

Particulars.	As on 31-3-1969.	As on 31-3-1972.	As on 31-3-1974 (antici- pated).	As on 31-3-1979 (pro- posed).	Remarks.
1	2	3	4	5	6
1. Surfaced .. ..	11,973	13,362	16,900	28,595	Figures in columns 4 and 5 indicate total kilometerage of roads under P. W. D. and R. E. O., while figures in columns 2 and 3 show only kilometerage under P. W. D.
2. Unsurfaced .. ..	2,982	2,852	5,752	4,432	
3. Total .. ..	14,955	16,214	22,652	32,827	
4. Rural roads out of total roads length (including other district roads and village roads).	1,371	2,630	9,068	20,068	
4.1. Rural roads covered by minimum need programme (i. e. connecting villages with 1,500 population and above).	..	..	..	10,000	
5. Roads other than rural road programme (3-4).	13,584	13,584	13,584	13,759	

## ROADS—STATEMENT III.

## RURAL ROADS.

## Minimum Needs Programme—Rural Roads.

	As on 31-3-1972.	As on 31-3-1974 (anticipated).	As on 31-3-1979 (proposed).
1. Total number of villages in the States ..	67,566	67,566	67,566
2. Of (1) above the no. of villages not connected by an all weather road.	63,080	62,580	55,817
3. Of the no. of (2) above, the no. of villages with a population of 1,500 and above.	7,263	6,763	Nil
4. Length of all weather roads to be constructed improved to connect all the villages at (3) above (kms.).	10,000	..	10,000
4.1 New constructions .. .. .	..	..	10,000
4.2 Improvement .. .. .	..	..	1,000
5. Estimated cost of constructing improving all weather roads as at (4) above (Rs. lacs). ..	..	..	*60,00.00
5.1 New construction .. .. .	..	..	55,00.00
5.2. Improvement .. .. .	..	..	500.00

\*Includes Rs. 500.00 lakhs on submersible bridges.

## ROADS STATEMENT IIIA.

Fifth Five-Year Plan—Minimum Needs Programmes, Rural Roads in the State of Bihar.

Section.	Name of section.	Location district.	Total estimated cost.	Outlay for Fifth Five-Year Plan in lacs.	Outlay for 1974-75 (in lacs).	Anticipated achievement in the Fifth Five-Year Plan (Physical) (length in kilometer).	Remarks.
1	2	3	4	5	6	7	8
Transport and communications.	Rural Roads	(1) Patna ..	314.00	314.00	45.00	600	
		(2) Gaya ..	421.00	421.00	60.00	800	
		(3) Sahabad ..	271.00	271.00	37.50	500	
		(4) Muzaffarpur ..	421.00	421.00	60.00	800	
		(5) Darbhanga ..	450.00	450.00	60.00	800	
		(6) Saran ..	408.40	408.40	60.00	800	
		(7) Champaran ..	459.50	459.50	60.00	800	
		(8) Bhagalpur ..	231.50	231.50	30.00	400	
		(9) Monghyr ..	466.50	466.50	60.00	800	
		(10) Purnea ..	420.00	420.00	52.50	700	
		(11) Saharsa ..	264.00	264.00	37.50	500	
		(12) Santhal Parganas..	181.50	181.50	22.50	300	
		(13) Ranchi ..	394.10	394.10	52.50	700	
		(14) Hazaribagh ..	267.50	267.50	37.50	500	
		(15) Singhbhum ..	215.40	215.40	30.00	400	
		(16) Palamau ..	258.40	258.40	37.50	500	
		(17) Dhanbad ..	55.60	55.60	7.50	100	
		TOTAL ..	5,499.80	5,499.80	750.00	10,000	
		Say ..	5,500.00	5,500.00			
		Spill over of Fourth Five-Year Plan.	..	500.00	250.00		
		TOTAL ..	..	6,000.00	1,000.00		

## ROAD TRANSPORT—STATEMENT IV.

Programme of State Road Transport Undertaking in the Fifth Five-Year Plan.

Sl. no.	Item.	As on			Proposed programme for Fifth Plan.				
		31-3-1969.	31-3-1973.	31-3-1974.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8	9	10
1	Total no. of buses on road in the State.	3500	3981	4314	4478	4630	4812	5034	5293
2	Number of buses on road in the public sector.	1153	1474	1696	1806	1928	2065	2237	2446
3	Percentage of 2 above to 1 above	32%	37%	39.3%	40.4%	41.6%	42.9%	44.4%	46.2%
4	Total route kilometrage in the State.	88082	108449	114049	117349	120849	124799	129549	134999
5	Route kilometrage operated exclusively by public sector buses.	35133	54000	58500	60700	63200	66000	69500	73700
6	Route kilometrage on which both public and private sector buses operate.	11683	19070	19845	20184	20544	21039	21313	21760
7	Percentage of 6 above to 4 above	39.9%	49.8%	51.3%	51.7%	52.3%	52.9%	53.6%	54.6%
8	Percentage of 5 above to 4 above	17.6%	17.4%	17.2%	17.0%	16.8%	16.8%	16.4%	16.1%
9	Number of trucks as operated by the undertaking.	..	Nil	(Scheme for operation of trucks is under examination but no final decision has been taken in the matter. Depending on additional availability of resources the undertaking may operate roughly 250 trucks in the Plan period on average at the rate of 50 trucks (addition in each year).					

## ROAD TRANSPORT—STATEMENT V.

Outlay on programme of State Transport Undertakings in the Fifth Plan.

(Rs. in lakhs)

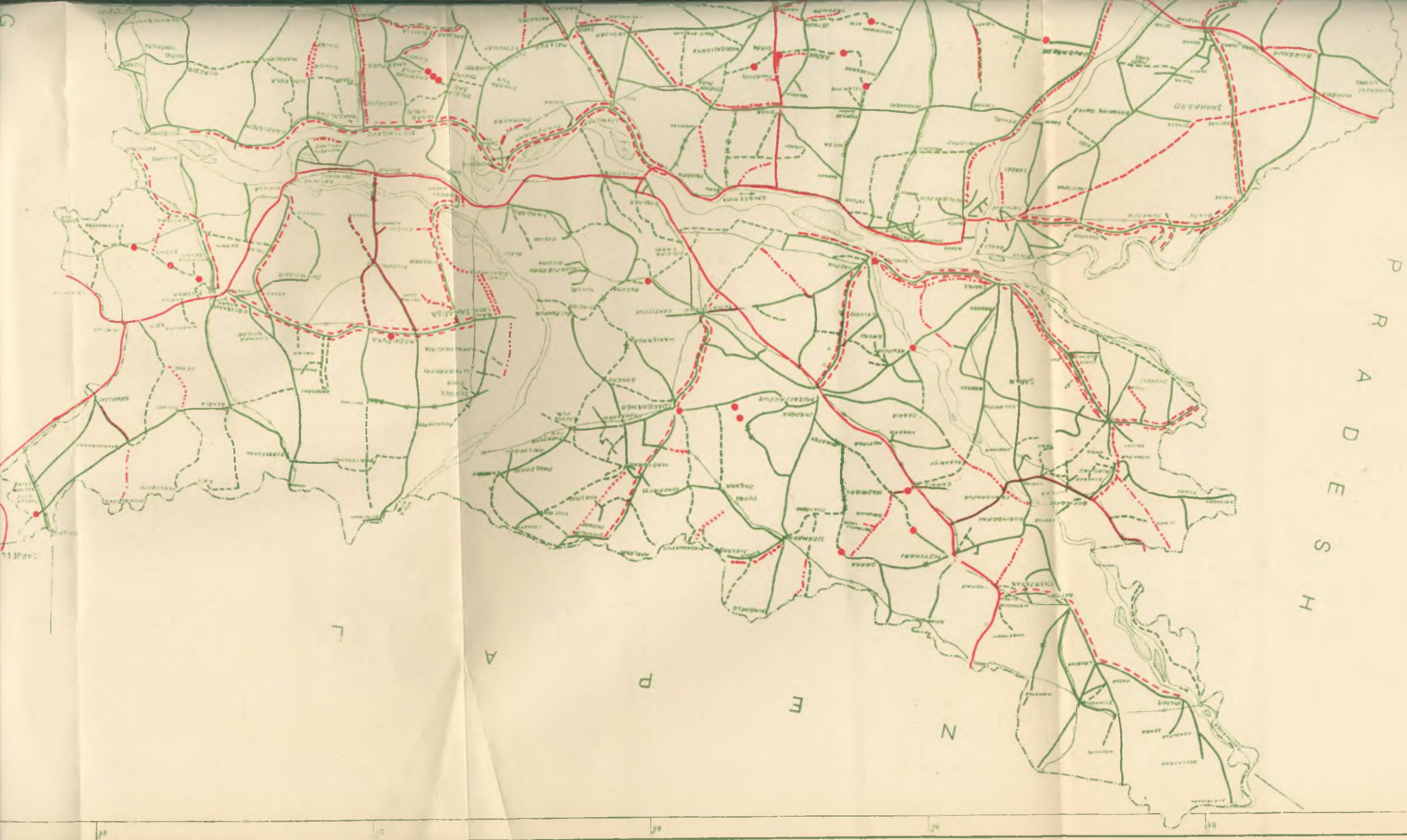
	Fourth Plan outlay.	Anticipated up to		Proposed outlay for Fifth Plan.					Total.	
		31-3-1973.	31-3-1974.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.		
	1	2	3	4	5	6	7	8	9	10
<b>1. Purchase of buses</b> (excluding bus for Replacement)—										
(a) For existing routes—										
(i) Number ..	555	274	555	85	100	116	149	185	635	
(ii) Cost(in Rs.) ..	385.64	260.42	385.64	79.70	95.65	110.46	141.55	174.79	602.15	
(b) For new routes—										
(i) Number ..	152	91	152	30	33	40	53	65	221	
(ii) Cost(in Rs.) ..	128.55	86.80	128.55	28.50	31.35	38.24	50.35	62.01	210.45	
(c) Total—										
(i) Number ..	607	365	607	115	133	156	202	250	836	
(ii) Cost(in Rs.) ..	514.19	347.72	514.19	108.20	127.00	148.70	191.90	236.80	812.60	
<b>2. Purchase of truck, if any—</b>										
(i) Number ..	..	..	..	..	As explained in Statement (IV)	..	..	..	..	
(ii) Cost	..	..	..	..	..	..	..	..	..	
<b>3. Workshop including works on building</b>	44.39	22.96	44.39	32.10	39.30	39.10	39.40	36.20	186.10	
<b>4. Staff quarters ..</b>	80.64	59.87	80.64	14.70	16.70	20.20	22.70	27.00	101.30	
<b>5. Other expenditure including purchase of auxiliary vehicles.</b>	639.22	430.00	639.22	155.00	183.00	208.00	254.00	300.00	1,100.00	
<b>6. Grand Total ..</b>										
<b>7. Buses to be purchased for replacement—</b>										
(i) Number ..	606	446	606	82	92	84	117	101	476	
(ii) Cost (in Rs.)	502.11	350.11	502.11	77.90	87.40	79.80	111.15	95.95	452.20	



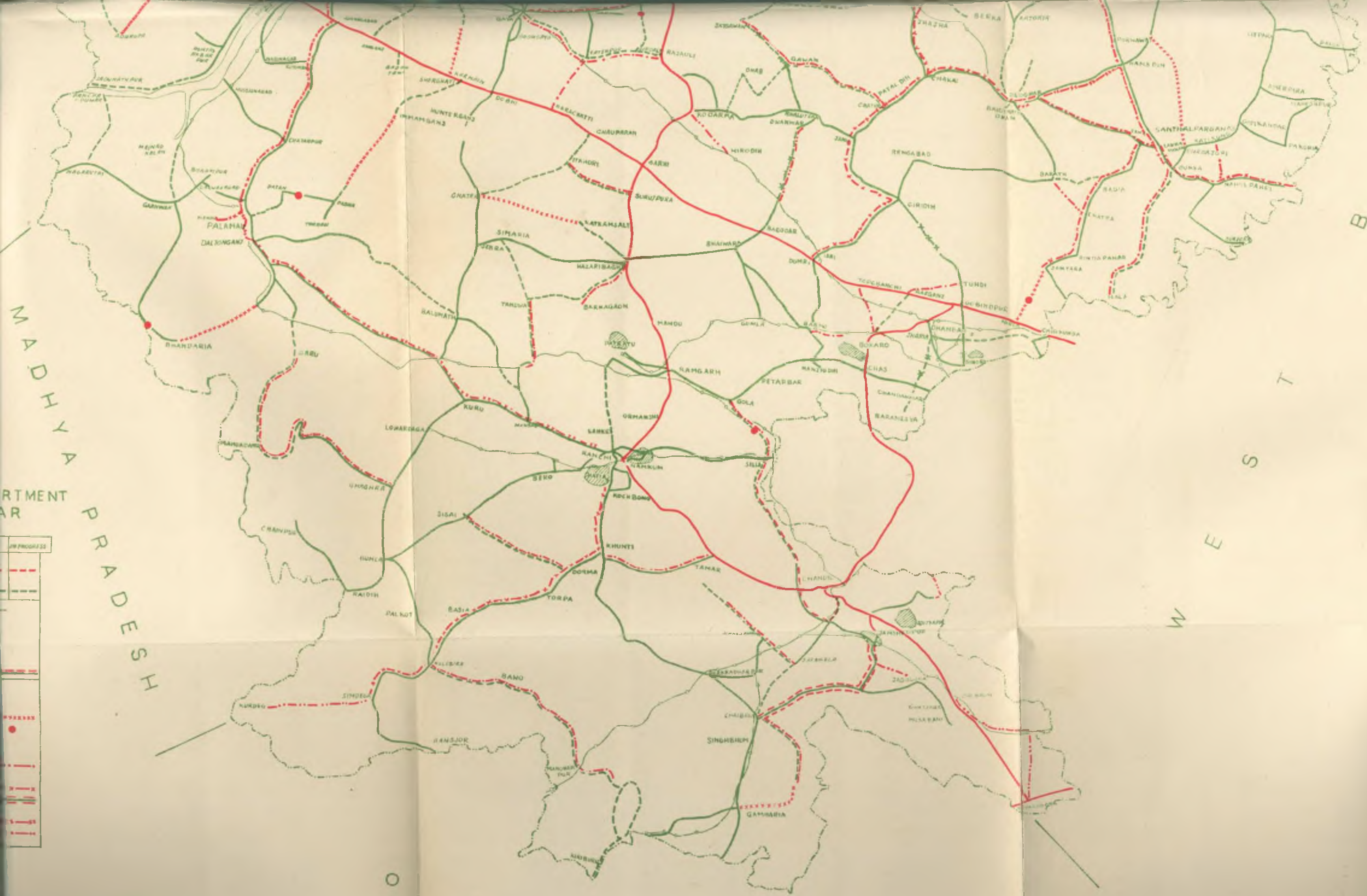
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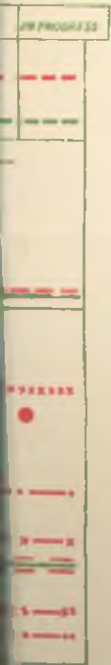


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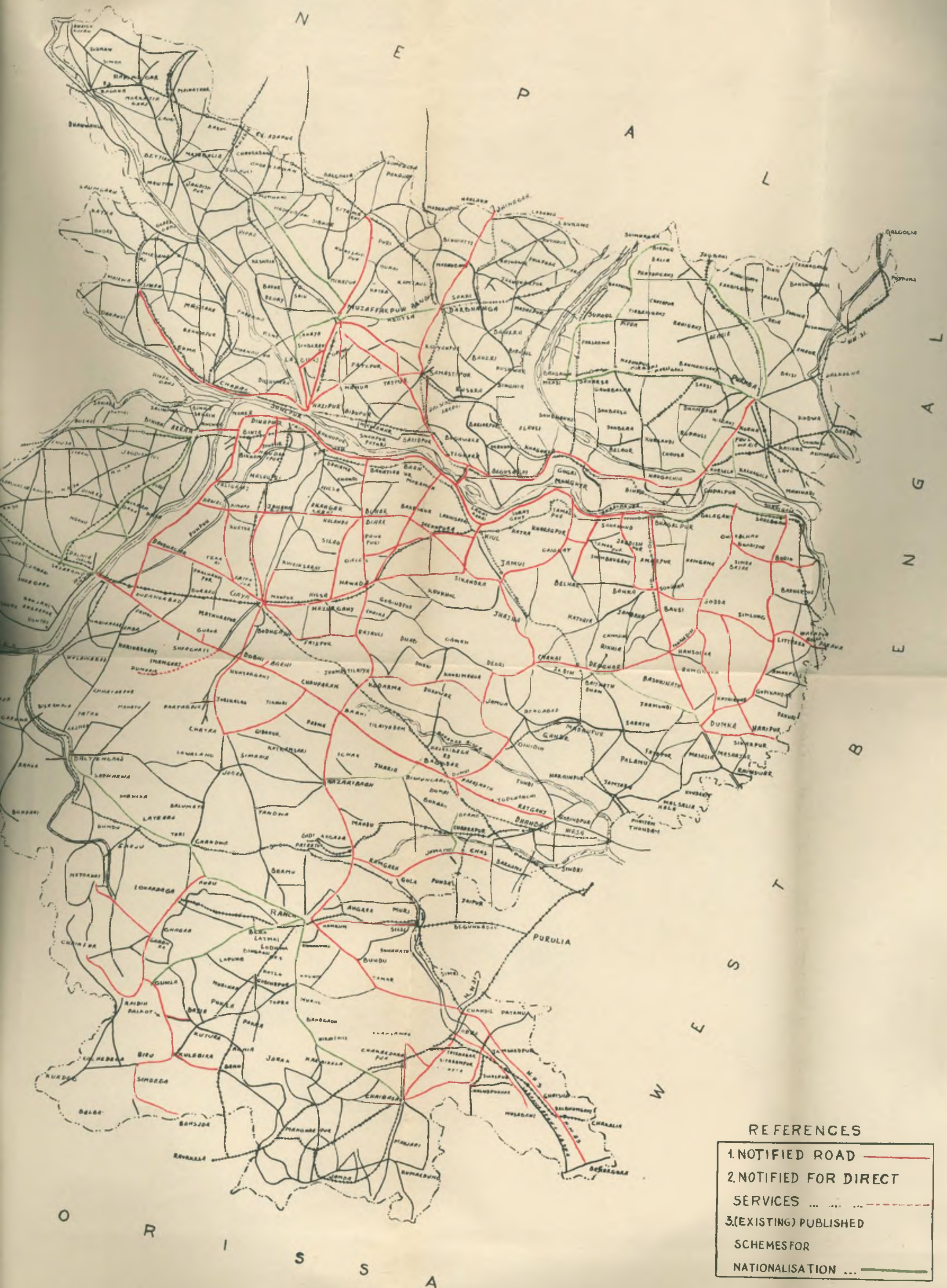
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REFERENCES

- 1. NOTIFIED ROAD ————
- 2. NOTIFIED FOR DIRECT SERVICES - - - - -
- 3. (EXISTING) PUBLISHED SCHEMES FOR NATIONALISATION ... ————

## ROAD TRANSPORT—STATEMENT VI.

Sources of finance for the programme of State Transport Undertakings.

(Rs. in lakhs)

	Fourth Plan.	Anticipated expenditure on		Proposed outlay for Fifth Plan.					Total.
		31-3-1973	31-3-1974	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	
1	2	3	4	5	6	7	8	9	10
<b>1. Plan outlay—</b>									
(a) From internal resources of the undertakings.	..	..	..	20.00	30.00	40.00	50.00	60.00	200.00
(b) From State Government contribution.	353.00	} 382.50	529.50	90.00	102.00	112.00	136.00	160.00	600.00
2. Railway's contribution	176.50		..	..	45.00	51.00	56.00	68.00	80.00
3. Loan from financial institution including Banks.	109.72	43.55	109.72	..	..	..	..	..	..
4 Other resources, if any	..	..	..	..	..	..	..	..	..
<b>GRAND TOTAL..</b>	<b>636.22</b>	<b>426.05</b>	<b>639.22</b>	<b>155.00</b>	<b>183.00</b>	<b>208.00</b>	<b>254.00</b>	<b>300.00</b>	<b>1,100.00</b>

## INLAND WATER TRANSPORT—STATEMENT IX.

Schemewise Outlay on Inland Water Transport in the Fifth Plan.

(Rs. in lakhs)

Sl. no.	Scheme.	Total cost.	Fourth Plan outlay.	Anticipated expenditure up to 31-3-1974.	Proposed outlay for the Fifth Plan.					Total 1974-79.
					1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	
1	2	3	4	5	6	7	8	9	10	11
1	Headquarter Technical Organisation.	4.35	Nil	Nil	0.87	0.87	0.87	0.87	0.87	4.35
2	Traffic Survey Unit ..	3.40	Nil	Nil	0.68	0.68	0.68	0.68	0.68	3.40
3	Hydrographic Survey Unit.	2.25	Nil	Nil	0.45	0.45	0.45	0.45	0.45	2.25
4	Purchase of boats and Survey equipments.	5.00	Nil	Nil	2.00	3.00	..	..	..	5.00
<b>TOTAL ..</b>		<b>15.00</b>	<b>Nil</b>	<b>Nil</b>	<b>4.00</b>	<b>5.00</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>	<b>15.00</b>

## TOURISM—STATEMENT X.

## Schemewise Outlays on Tourism in the Fifth Plan.

(Rs. in lakhs.)

Sl. no.	Scheme.	Total cost.	Fourth Plan outlay.	Anticipated expenditure up to 31.3.1974	Proposed Outlay on Fifth Plan.					Total. 1974—79.
					1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	
1	2	3	4	5	6	7	8	9	10	11
1	Beautification and Development of places of tourist attraction.	..	..	..	0.50	0.30	0.30	0.40	0.50	2.00
2	Construction and Establishment of Tourist Rest Houses and Cottages.	..	..	..	2.00	2.00	1.50	1.50	1.00	8.00
3	Construction of Building of Tourist information Centres-cum-Cafeteria.	..	..	..	2.25	1.25	0.50	0.50	0.50	5.00
4	Establishment of Tourist information Centre (and Reception Counters).	..	2.55	2.55	0.50	0.40	0.40	0.40	0.30	2.00
5	Transport Facilities..	..	2.40	2.40	0.75	0.75	0.50	0.50	0.50	3.00
6	Tourist Publicity ..	..	2.46	2.46	0.75	0.75	0.75	0.75	1.00	4.00
7	Expansion of Tourism (Administrative set-up).	..	2.90	2.90	0.50	0.50	1.00	1.00	1.00	4.00
8	Renovation and Maintenance of Youth Hostel.	..	..	..	0.25	0.25	0.50	0.50	0.50	2.00
9	Building Projects ..	..	13.43	13.43	..	..	..	..	..	..
TOTAL ..		..	23.74	23.74	7.50	6.20	5.45	5.55	5.30	30.00

## CHAPTER XIX

### EDUCATION

According to the directive principles of the Constitution it is obligatory for the State Government to provide universal and free Primary Education. The following table will indicate the position of enrolment in the year 1968-69, the achievement made during the Fourth Five-Year Plan:—

	Enrolment, Percentage 1968-69.			Fourth Plan.		Level expected during 1973-74.	
	1	2	3	Target fixed.	Enrolment achieved.	Enrolment by 1973-74.	Percentage, 1973-74.
<b>AGE GROUP 6—11.</b>							
Boys .. ..	30.10	82.08	6.98	5.46	35.56	88.1	
Girls .. ..	9.94	29.00	8.05	3.06	13.00	34.2	
<b>TOTAL ..</b>	<b>40.04</b>	<b>55.09</b>	<b>15.02</b>	<b>8.52</b>	<b>48.56</b>	<b>62.2</b>	
<b>AGE GROUP 11—14.</b>							
Boys .. ..	6.70	32.8	3.00	2.51	9.21	40.07	
Girls .. ..	1.21	6.7	1.13	0.44	1.70	7.9	
<b>TOTAL ..</b>	<b>7.91</b>	<b>19.7</b>	<b>4.13</b>	<b>3.00</b>	<b>10.91</b>	<b>24.3</b>	

2. The target of enrolment during the Fourth Five-Year Plan was kept at Rs. 15.02 lakhs but this could not be fully achieved due to inadequacy of resources and the socio-economic conditions. The achievement in respect of enrolment of girls was poor. Apart from the economic factors the general lack of awareness of the importance of Girl's Education, dearth of qualified female teachers, absence of common room and separate toilets for girls and absence of adequate incentives are some of the prominent reasons for this low achievement.

3. As many as 1,433 Middle Schools, mostly by upgrading the existing U.P. Schools, and 3,095 Primary Schools were established, large number of elementary schools were strengthened, 36,331 additional teachers were appointed, as against the target of 40,000 teachers during the Fourth Plan. The target could not be reached due to lower plan allocation.

4. As against the target of construction of 5,000 additional class room, 13,568 class rooms were constructed during the plan period. Large number of school buildings

were damaged due to heavy floods during 1971. In order to tide over the unexpected calamity, generous grants to the tune of Rs. 4.39 crores were received from Government of India. Thus, the target was exceeded. In spite of all this about 35 per cent and 40 per cent of the total number of primary schools do not have buildings of their own.

5. In the Secondary sector, out of the total outlay of Rs. 3.8 crores which formed 10.20 per cent of the total plan outlay, a sum of Rs. 1.14 crores only was spent. Due to financial stringency the anticipated allocation was considerably reduced. The progress made during the Fourth Plan is indicated in the table below :—

	1968-69 (position)	1973-74.	
1. Institution .. .. .	2,392	2,700	(+308)
2. Enrolment (In lakh) .. .. .	5.02	7.25	(+2.23)
Percentage .. .. .	13.04	18.06	(+5.02)
3. Teachers .. .. .	26,686	29,000	(+2,314)
4. Trained teachers .. .. .	13,466	21,000	
Percentage .. .. .	50.4	72.4	

6. Thus 308 non-Government Secondary Schools come into existence during this period. Most of these schools lack adequate facilities such as laboratories, libraries, playground, teaching aids etc. As against the target of new 20 subsidised schools only two schools could be subsidised. Besides, 3 Government Secondary schools were started. As has been said above, Government could not open new schools or subsidize more schools due to cut in the plan allocation.

7. Additional enrolment of 2.23 lakhs children and appointment of additional 2,314 teachers were made. Steps were taken to improve the service conditions of the teachers by giving to the schools suitable grants.

8. During the Fourth Five-Year Plan there has been considerable growth in the number of institutions imparting Higher Education. The progress made during the Fourth Plan is indicated in the table given below :—

Year.	No. of Univer- sities.	No. of Consti- tuent colleges.	No. of affiliated colleges.	Total.	No. of P.G. teaching classes.	No. of students in the age group 17 to 23.
1	2	3	4	5	6	7
1968-69 .. .. .	5	19	142	161	104	1,75,143
1973-74 .. .. .	6	27	248	275	122	2,60,000

9. Although there has been expansion in the number of colleges and increase in expenditure, the standard of college education is low mainly because of inadequate facilities in terms of buildings, laboratories, equipment, libraries, hostel facilities, etc.

10. The main problem of Education to be tackled during the Fifth Plan are—

### 1. Elementary Education

- (a) Low coverage of school going children in the age-group of 6—11 and 11—14.
- (b) Wastage and stagnation at the level of various classes of the Elementary Schools.

### 2. Secondary Education

Improvement in the standards of Secondary Education by—

- (a) providing adequate facilities to the schools.
- (b) improvement in the syllabii, curriculum etc. and
- (c) vocationalisation.

### 3. University and College Education

- (a) Strengthening of Post-graduate classes and research facilities;
- (b) Improvement in the standards of graduate and honours education; and
- (c) strengthening in the University administration.

11. In matters of literacy and coverage of school-going children in the elementary schools, the State is considerably behind the advance States. Up to the end of 1973-74, about 62.2 per cent of school-going children will have been enrolled in the Primary schools and only about 24 per cent of the school-going children of the age-group 11—14 will be attending in the Middle Schools. Even amongst those who are enrolled in the schools, large numbers drop out after the 1st year. In the matter of girls education the State is still backward.

12. It is, therefore, necessary to take steps not only to increase the enrolment substantially but to see that those who are enrolled stay in the schools to complete their elementary education. It is also necessary to give adequate incentives to girls and the children of the scheduled caste and scheduled tribes and induce their parents to get their children enrolled in the schools and allow them to stay in them for completing their elementary school.

13. In the Fourth Plan, against the provision of Rs. 38.38 crores, the actual expenditure on General and Cultural Education was Rs. 29.38 crores. The reason for this shortfall was that on account of inadequate resources, funds in Annual Plans could not be provided to the extent anticipated.

14. In the Fifth Plan the emphasis is on cent per cent enrolment of boys and 55.5 per cent of enrolment of girls in the age-group 6—11 and 60 per cent enrolment in respect of boys and 20 per cent in respect of girls in the age-group 11—14.

It will appear that this target is low in comparison with the National target of 100 per cent coverage of the children of the age-group 6—11 and 60 per cent coverage of the age-group 11—14. This is so in spite of the fact that 93.23 crores that is about 69 per cent of the total anticipated outlay of 134.72 crores will be spent on elementary education.

15. In the Secondary Education emphasis has been placed on qualitative improvement of the schools by providing facilities for laboratories, libraries, additional class rooms etc. Provision has also been made for the teaching of science, work experience and one more Indian Language in the secondary schools. Schemes for vocationalisation and diversification of courses in the Post-Secondary stage has also been drawn up. Greater emphasis has been laid on the in-service training of teachers.



16. Allocation for Secondary Education during the preceding plan periods had not been in keeping with the problems to be tackled. During the Fourth Plan, an outlay of about Rs. 3.8 crores was provided for Secondary Education. Considering the importance of Secondary Education and as a result of introduction of diversification of courses in the Post Secondary stage, higher allocation has been suggested in the Fifth Plan.

17. In the field of Higher Education greater emphasis has been laid on consolidation and improvement rather than on expansion. Facilities for post-graduate education and research work in the Universities will be strengthened. Schemes of qualitative improvement for raising the standard of graduate teaching will be implemented and Three Year Degree course will be introduced. Facilities for students welfare in the shape of hostel facilities, library, common room, provision for games and sports will also be provided. In order to enable the Universities to perform the task allotted to them the administration of the Universities will be strengthened.

18. It is proposed to provide Rs. 134.72 crores during the Fifth Five-Year Plan (including minimum needs based programmes) which will be distributed in the various sectors as indicated below :—

				<i>(Rs. in crores.)</i>
(1)	(a) Elementary Education (including minimum needs).			91.98
(2)	Secondary Education	..	..	23.74
(3)	University Education and Higher Education Institutes.			9.44
(4)	Teachers Training—			
	(i) Elementary Education	..	..	1.25
	(ii) Secondary Education	..	..	1.26
(5)	Social Education	..	..	1.60
(6)	Other Educational Programmes	..	..	4.76
(7)	Cultural Programmes	..	..	0.69
	<b>TOTAL</b>	..	..	134.72

19. During the Fifth Plan period, it is proposed to enrol 15.76 lakhs additional children in the Primary Schools and 7.95 lakhs children in the Middle Schools. With this additional enrolment, the percentage of school going children (6—11) will increase from 62.2 to 77.7 and in age-group 11—14 from 24.3 to 40. This expansion will necessitate appointment of 35,000 additional teachers in the Primary schools and 15,925 additional teachers in the Middle Schools. Besides 20,999 part-time teachers will also be required for informal education.

20. One of the reasons for low enrolment percentage in Bihar has been that our schools were not attractive enough and lacked the necessary facilities. At present about 40 per cent of the Primary schools in this State have no buildings of their own. It is, therefore, proposed to construct 12,856 additional class rooms during the Fifth Plan Period. In order to improve the position regarding enrolment of girls

it is proposed to appoint more and more lady teachers in the schools, and to construct quarters for women teachers in the out of the way places incentives will be provided to girls enrolled by way of stipend, mid-day meals, free school uniform, free supply of text books etc. It is also proposed to provide separate common-rooms, sanitary facilities for girls in the mixed schools.

21. According to available figures, Bihar ranks third in India both with regard to Scheduled Castes and Scheduled Tribes population. Scheduled Tribes in Bihar number 4.93 millions which constitute 8.75 per cent of its total population. Scheduled Castes number 7.95 millions which constitute 14.1 per cent of the total population.

About 93 per cent of the tribal population is concentrated in Chotanagpur and Santhal Parganas. On account of general backwardness and slow pace of their development, the scheduled castes and scheduled tribes deserve special attention. The State Government are already providing tuition free education from the Elementary stage right up to the University level. Literal stipends and scholarships are granted. In spite of these facilities, enrolment position at various level of education is very low.

22. Due to sparsely populated villages spread over larger areas, it is considered necessary to establish Ashram schools in these areas. It is also proposed to have peripatetic teachers in these areas. Programmes of mid-day meals, free supply of text books and uniforms have been included in the Fifth Plan Period. An outlay of Rs. 41.60 crores has been provided for various schemes in respect of Chotanagpur and Santhal Parganas areas, which works and to about 30 per cent of the total proposed Plan outlay on general education.

### ELEMENTARY EDUCATION

23. According to Article 45 of the Directive Principles of the constitution free and compulsory education was to be provided to all children up to the age of 15 within ten years from its commencement. The State Government have been making determined efforts to reach this goal, but for various reasons (including financial, economic and social) the goal has not been realised even after the lapse of 25 years of freedom. Although it should have been desirable to achieve the target of 100 per cent enrolment of the children in the age-group of 6—14 at least by the end of the Fifth Plan, due to limitations of resources it will not be possible to do so.

24. The main problems in respect of elementary education to be tackled during the Fifth Five-Year Plan will be provision for (a) Universal Schooling Facilities, (b) Universal enrolment and (c) Universal retention.

25. During 1966—74, the State Government have adopted the policy of providing independent primary school for every habitation which could ensure a supply of 40 pupils. Thus calculating the number of children of school going age in the 6—11 age-group at the rate of 14.5 per cent of the total population, it is expected that by 1974 every habitation having a population of 300 and more will have an independent primary school.

26. In Bihar out of the total number of 1,16,476 habitations those having less than 300 population number 67,577, which means that 56 per cent of the habitations are of such size which cannot ensure supply of sufficient number of children to justify any thing more than a single teacher school. It is, thus, evident that in this State the difficulties of universalisation of education are greater and have to be looked from this point of view.

27. What appears essential now is to adopt a fresh approach to the problem of such small habitation schools as most of them are located in far flung areas, hilly or mountainous areas, and geographically difficult regions with distinct cultural and language problems.

28. The number of habitations which have population below 300 and not being served by any school at present are as follows :—

Population slab.	No. of habitations.
1. 200—299 .. ..	1,132
2. 100—199 .. ..	2,457
3. Below 100 .. ..	3,879

29. During the Fifth Plan it is proposed to provide a separate primary school in each of the 1,132 habitations falling within the population slab of 200—299 of the 2,467 habitations falling within the population slab of 100—199, it is expected by 1975 50 per cent would each have more than 200 persons and each of them will be entitled to have a separate primary school. Thus 1,228 schools will be required to serve these 2,457 habitations. For the 3,879 habitations, having population less than 100 *plus* the 50 per cent remaining 1,229 habitations out of the 2,457 habitations in 100—199 population slab i.e. 5,108 habitations in all it is proposed to provide peripatetic teachers. On the average each teacher will have to serve 2 habitations for three days in a week. Thus the number of peripatetic teachers will work out to 2,554.

30. Additional numbers of middle schools will also be required in many habitations already covered by middle schools within 3 miles to provide facilities to children to continue their studies up to middle standard in nearby schools. The task force on Elementary Education of the Government of India according to which the ratio of Primary and Middle school could be 1 : 3 instead of the present ratio of 1 : 6. On the basis of this recommendation, additional 6,000 middle schools will have to be established by upgrading the existing centrally situated primary schools which will enable them to become viable units. Besides, for habitations not served another 1,644 new schools are required to be opened. Thus, in all 7,644 middle schools are proposed to be established during the Fifth Plan period.

31. For the Scheduled Tribes and Scheduled Castes it is proposed to establish 80 ashram type schools out of the above mentioned 7,644 middle schools mainly in the districts of Chotanagpur and Santhal Parganas. For the Scheduled Castes, who are scattered all over the State, these ashram type schools are expected to prove useful.

32. The estimated population of the total children in the age-group 6—11 (reconstructed from the estimates of population supplied by Registrar-General of Census, India) in Bihar State is as follows :—

(*Figures in thousand*)

State	1974			1979		
	Males	Females.	Total	Males	Females	Total
Bihar ..	40,34	37,75	78,09	42,32	39,60	81,92

33. It would be seen that during the quinquennium there is an estimated rise of 1.98 lakhs in case of boys and 1.85 lakhs in case of girls. Thus assuming that the rate of growth of the population remaining the same, the rise per year works out to 40,000 in case of boys and 37,000 in case of girls.

34. The projected population for age-group 6—11 has been shown in the Table below :—

Table showing population for age-group 6—11.

*In lakhs*

Year.	Estimated population of children		
	Boys.	Girls.	Total
1973-74	40.34	37.75	78.09
1974-75	40.72	38.12	78.84
1975-76	41.12	38.49	79.61
1976-77	41.52	38.86	80.36
1977-78	41.92	39.23	81.15
1978-79	42.32	39.60	81.92

35. The estimated population of the children of the age-group 11—14 on the same basis has been calculated to be as follows :—

State	1974			1979		
	Males.	Females	Total	Males	Females	Total
Bihar	22,60	21,33	43,93	23,99	22,30	46.29

It would be seen that the average increase per year in case of boys during the quinquennium works out to 27,800 and 19,400 in case of girls. The projected population for the children of this age-group during 1974—79 has been shown in the table below :—

Table showing population of 11—14.

Year.	Estimated population of children (in lakhs) of 11—14.		
	Boys.	Girls.	Total.
1973-74	22.60	21.33	43.93
1974-75	22.28	21.56	44.44
1975-76	23.16	21.75	45.91
1976-77	23.44	21.95	45.39
1977-78	23.72	22.14	45.86
1978-79	23.99	22.33	46.32
1979-80	24.27	22.52	46.79
1980-81	24.55	22.71	47.26

36. In fixing up the targets for enrolment in the age-group 6—11, care has been taken to assess the likely achievement in enrolment by the end of the Fourth Five-Year Plan. It would be seen from the table below that enrolment ratio obtaining at the end of the Fourth Five-Year Plan, of children reveal very wide differences. Thus whereas the percentage of boys attending schools, is 88.1 that of girls is only 34.2. This means that we have yet to enrol all the boys. The more difficult part of the effort, however, lies in facing the problem of bringing the girls to schools. It has, therefore, been decided to achieve 100 per cent enrolment in case of boys and only 55.5 per cent in case of girls making an overall percentage of 77.75 by the end of the Fifth Five-Year Plan.

The Phasing of the enrolment will be as follows:—

Year	Estimate population (In lakhs)			Target of enrolment (In lakhs)			Annual Targets of additional enrolment. (In lakhs)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
	2	3	4	5	6	7	8	9	10
1973-74 position ..	40.34	37.75	78.09	35.56 (88.1)	13.00 (34.5)	48.56 (62.2)	..	..	..
1974-75 ..	40.72	38.12	78.84	37.10 (91.11)	14.60 (38.30)	51.70 (64.70)	1.54	1.60	3.14
1975-76 ..	41.12	38.49	79.61	38.64 (93.67)	16.20 (42.08)	54.84 (67.98)	1.54	1.60	3.14
1976-77 ..	41.52	38.86	80.38	40.18 (96.77)	17.80 (45.80)	57.98 (71.28)	1.54	1.60	3.14
1977-78 ..	41.92	39.23	81.75	41.72 (99.52)	19.40 (49.45)	61.12 (74.48)	1.54	1.60	3.14
1978-79 ..	42.32	39.60	81.92	42.32 (100.00)	22.00 (55.5)	64.32 (77.75)	0.60 (6.76)	2.60 9.00	3.20 15.76

37. This total additional enrolment of 6.76 lakhs of boys and 9.00 lakhs of girls is to be achieved through two methods—(1) Through regular schooling facilities and (2) through part-time or informal education. It is proposed that 90 per cent of the enrolment target be reached through provision of regular teachers and 10 per cent through part-time volunteer teachers.

38. The enrolment phased to be reached through regular and part-time education has been shown below:—

Year	Total no. of additional children to be enrolled. (In lakhs)			Proposed total no. of children (90%) to be enrolled through regular teachers. (In lakhs)			Proposed total no. of children (10%) to be enrolled through part-time teachers. (In lakhs)			No. of teachers required.	
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Fulltime 1 : 40 pupils.	Part-time 1 : 15 pupils.
	2	3	4	5	6	7	8	9	10	11	12
1974-75 ..	1.54	1.60	3.14	1.42	1.42	2.84	0.12	0.18	0.30	7,100	2,000
1975-76 ..	1.54	1.60	3.14	1.42	1.42	2.84	0.12	0.18	0.30	7,100	2,000
1976-77 ..	1.54	1.60	3.14	1.42	1.42	2.84	0.12	0.18	0.30	7,100	2,000
1977-78 ..	1.54	1.60	3.14	1.42	1.42	2.84	0.12	0.18	0.30	7,100	2,000
1978-79 ..	0.60	2.60	3.20	0.42	2.42	2.84	0.12	0.18	0.36	7,100	2,400
Total ..	6.76	9.00	15.76	6.10	8.10	14.20	0.66	0.90	1.56	35,500	10,400

39. Because of inadequate financial resources, it will not be possible to appoint regular teachers on the full prescribed scale. Besides, special efforts have now to be made for increased enrolment. Past experiences show that the rise in enrolment has not been commensurate with the number of teachers deployed. It is proposed to appoint in the beginning stipendiary teachers who would be given stipends at a fixed rate of Rs. 150 per month and after two years of regular service, if their work is found to be satisfactory, then from the third year they will be appointed as regular teachers on prescribed scale of pay.

40. The total stipendiary and salary cost involved over 35,500 teachers has been shown below :—

Cost on full-time teachers during the fifth plan 1974—79.

	1974-75	1975-76	1976-77	1977-78	1978-79	Total
<b>(A) Cost on stipends—</b>						
No. of stipendiary Teachers	7,100	7,100	7,100	7,100	7,100	35,500
Cost on stipends at the rate of Rs. 1,800 per annum—						
(a) Additional .. ..	127.80	127.80	127.80	127.80	127.80	639.00
Continuing .. ..	..	127.80	127.80	127.80	127.80	511.20
<b>TOTAL (A) .. ..</b>	<b>127.80</b>	<b>255.60</b>	<b>255.60</b>	<b>255.60</b>	<b>255.60</b>	<b>1,150.20</b>
<b>(B) Cost on salaries—</b>						
Salaries at the rate of Rs. 27.60.	..	..	..	..	..	..
(1) 3 Years for 1974-75 batch.	..	..	195.96	195.96	195.96	587.88
(2) 2 Years for 1975-76 batch.	..	..	..	195.96	195.96	391.92
(3) 1 Year for 1976-77 batch.	..	..	..	..	195.96	195.96
<b>TOTAL (B) .. ..</b>	<b>..</b>	<b>..</b>	<b>195.96</b>	<b>391.92</b>	<b>587.88</b>	<b>1,175.76</b>
<b>GRAND TOTAL(A + B)</b>	<b>127.80</b>	<b>255.60</b>	<b>451.56</b>	<b>647.52</b>	<b>843.48</b>	<b>2,325.96</b>

41. Keeping in view the pace of achievement and financial resources, it is proposed to each enrolment position of 60 per cent of boys and 20 per cent of girls by 1978-79. This would mean additional enrolment of 5.19 lakh boys and 2.76 lakhs of girls i.e., a total of 7.95 lakh children in this age-group. The phasing of enrolment has been shown in the table below :—

Year	Proposed no. of Children			Target of enrolment (in lakhs)			Annual Target (in lakhs)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1973-74	22.60	21.33	43.93	9.21	1.70	10.91	..	..	..
Position. 1974-75	22.88	21.56	44.34	10.21 (44.6)	2.30 (10.66)	12.51 (27.63)	1.00	0.60	1.60
1975-76 ..	23.16	21.75	44.91	11.21 (48.21)	2.90 (13.20)	14.11 (30.80)	1.00	0.60	1.60
1976-77 ..	23.44	21.95	45.39	12.21 (52.0)	3.50 (13.28)	15.71 (32.64)	1.00	0.60	1.60
1977-78	23.72	22.14	35.86	13.40 (56.40)	4.10 (19.1)	17.50 (32.75)	1.99	0.60	1.79
1978-79	23.99	22.33	46.32	14.40 (60.0)	4.46 (20.0)	18.86 (40.0)	1.00	0.36	1.36
			<b>TOTAL</b>	..	..	..	5.99	2.76	7.95

### Plasing of full time and part-time education for children of age-group 11—14

42. It has been proposed to enrol 80 per cent of the total proposed additional number of children through formal education and 20 per cent through informal education including children in continuation classes for which no separate target is proposed.

Thus 4.16 lakh boys and 2.21 lakh girls *i.e.*, a total of 6.37 lakhs of children are proposed to be provided facilities of formal education and 1.05 lakhs of boys and 0.53 lakhs of girls *i.e.*, total of 1.59 lakhs of children through informal education.

43. The phasing of this programme with number of teachers during the plan period has been shown—

Year	Total additional no. of children to be enrolled in the age around 11—14.			Total number of children to be provided education through formal education (80 per cent of col. 2 to 4).			Total number of children to be provided education through informal education (20 per cent of cols. 2 to 4).			Total number of Teachers.	
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Full time at the rate 1.10. Pupils.	Part-time at the rate of 1:4
1	2	3	4	5	6	7	8	9	10	11	12
1974-75 ..	1.00	0.60	1.60	0.80	0.48	1.28	0.20	0.12	0.32	3,200	2,133
1975-76 ..	1.00	0.60	1.60	0.80	0.48	1.28	0.20	0.12	0.32	3,200	2,133
1976-77 ..	1.00	0.60	1.60	0.20	0.48	1.28	0.20	0.12	0.32	3,200	2,133
1977-78 ..	1.19	0.60	1.79	0.96	0.48	1.44	0.24	0.12	0.36	3,600	2,400
1978-79 ..	1.00	0.36	1.36	0.80	0.29	1.09	0.20	0.07	0.27	2,725	1,800
Total ..	5.19	2.76	7.95	4.16	2.21	6.37	1.04	0.55	1.59	15,925	10,599 or 10,600

44. It has been proposed to achieve the enrolment targets in the age-groups 11—14 on the same lines as planned for the age-groups 6—11; *viz.*, through a system of stipendiary teachers, ultimately being absorbed as regular teachers.

45. Some of these stipendiary teachers who would be working in Middle Schools, would be Intermediate and Graduate trained and it will, therefore, be desirable to give them higher stipends than that paid to the Matric trained who would be employed for the children of the age-group 6—11. Thus, it has been proposed to pay the Intermediate trained stipendiary teacher, a stipend of Rs. 175 per month, and the graduate trained a stipend of Rs. 200 per month as against the stipend of Rs. 150 for the Matric trained. Calculating the cost on full time education on account of stipends for teachers, an average stipend of Rs. 160 per month has been kept in view.

*Cost on full time teachers for the age-groups 11—14.*

	1974-75	1975-76	1976-77	1977-78	1978-79	Total
(A) Cost on stipends No. of stipendary teachers	3,200	3,200	3,200	3,600	2,725	15,925
Cost on stipends at the rate of Rs. 1,920 per annum—						
(1) Additional .. ..	61.44	61.44	61.44	69.12	52.12	305.76
(2) Continuing .. ..	..	61.44	61.44	61.44	69.12	253.44
Total—(A) .. ..	61.44	122.88	122.88	130.56	121.44	559.20
(B) Cost of Salaries—						
Salaries at the rate of Rs. 3,450 per annum—						
(1) 3 Years for 1974-75 batch .. ..	..	..	110.40	110.40	110.40	331.20
(2) 2 Years for 1975-76 batch .. ..	..	..	..	110.40	110.40	220.80
(3) 1 Year for 1976-77 batch .. ..	..	..	..	..	110.40	110.40
Total .. ..	..	..	110.40	220.80	331.20	662.40
GRAND TOTAL (A+B) .. ..	61.44	122.88	233.28	351.36	452.64	1,221.60]

46. As the percentage of drop-outs has risen to 78.2 by the time the students reach Classe V, it is essential to provide part-time education for those who have attended schools and dropped out, and also for those who have never attended any school.

47. It is difficult to ascertain the exact number of children in these groups 6—14 who have never attended school or who have attended for some-time and then dropped out. It is, however, proposed to provide facilities for part-time education for about 10 percent of the children of age-group 6—11 and 20 percent in the age-groups 11—14 as discussed earlier.

48. Thus the total number of valuntee teachers to be employed for the children of 6—14 age group works out to 20999 (10400 for the sge group 6—11 and 10599 teachers for the age group 11—14).

49. The services of valuntee teachers, retired teachers and other educated persons including women who are available on part time basis, will be utilised on part-time basis to teach the children, particularly, the girls and of the children of the weaker sections of the community, during the hours suitable to them.

These teachers will be paid suitable honorarium and, if qualified, may be given the chance of being trained and appointed as regular teachers in due course. If Volunteer teachers having minimum academic qualifications for becoming teachers, space satisfactorily on honorary basis for 2 years, this may also be selected for teacher training and apponted as regular teachers. Such teachers (excepting the honorary ones) may be paid an honorarium of Rs. 50 per month for running part-time schools and designated as volunteer teachers.

50. The minimum number of students to be enrolled with such volunteer teachers will be 10 in tribal and hilly region and 1p in plain gras. Special emphasis will be laid for part-time education of children of the age-group 9—11 who have either



missed going to school to or have dropped out from it on account of social or economic ground. In schools especially in tribal and hilly areas and such backward areas where there is no sufficient enrolment to justify the upgradation of schools to next higher status, continuation classes also will be run.

51. The phasing of the cost of teachers has been shown below—

(In lakhs.)

Year.	No. part-time teachers.	Amount required at the rate of Rs. 600 per teacher per annum.		
		Additional required.	Continuing.	Total.
1	2	3	4	5
1974-75 .. ..	4,133	2,47,98,00	..	2,47,98,00
1975-76 .. ..	4,133	24,79,800	24,79,800	49,59,600
1976-77 .. ..	4,133	24,79,800	49,59,600	74,39,400
1977-78 .. ..	4,400	26,40,000	74,39,400	1,00,79,400
1978-79 .. ..	4,200	25,20,000	1,00,79,400	1,25,99,400
Total .. ..	20,999	1,25,99,400	2,49,58,200	3,75,57,600

52. Non-teacher cost, which include contingencies and supply of furniture, teaching aids, maps, globes, and other equipments has been calculated at the rate of Rs. 15 percent of the teacher cost. The phasing of the expenditure on non-teacher cost along with teacher cost on employment of teachers for the enrolment of children of both the age-groups has been shown below—

(Rs. in lakhs.)

	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	Total.
<i>(A) For age-group 6—11—</i>						
Teacher cost .. ..	127.80	255.60	451.56	447.52	843.48	2,325.96
Non-teacher cost at the rate of 15 percent of the teacher cost.	19.17	38.34	67.73	97.13	126.52	348.89
Total—(A) .. ..	146.97	293.94	519.29	744.65	970.00	2,674.85
<i>(B) For age-group 11—14—</i>						
Teacher cost .. ..	61.44	122.88	233.28	351.36	422.64	1,221.60
Non-teacher cost at the rate 15 percent of the teacher cost.	9.22	18.44	34.99	52.70	67.90	183.25
Total—(B) .. ..	70.66	141.32	268.27	404.04	490.54	1,404.85
GRAND TOTAL—(A) % (B) .. ..	317.63	435.26	787.56	1,148.71	1,490.54	4,079.70

53. The 11,000 teacher appointed under special employment scheme during 1973-74 will be absorbed during the Fifth Plan and for this a sum of Rs. 1,70.49 lakhs have been earmarked.

54. The primary reason for low enrolment of the children of the weaker sections of the community in the primary schools is economic. The parents of these children need their services when they attain the age of six or seven years for tending cattle and goats or looking after their infant younger brothers and sisters when the parent go to work. While the programme "Garibi Hatao" envisaged in the Fifth Five-Year Plan will help to some extent in enrolment of the children of the weaker sections of the community, direct incentive in the shape of mid-day-meals and uniform to those children will help considerably in improvement of the rate of enrolment of the children in the Schools.

55. The low enrolment of the girls of almost all the sections of the community excepting those of the upper and middle classes in the urban areas is partly due to social reasons. There is still some prejudice in rural areas in sending girls to schools located at a distance from their homes as also in schools with male teachers. Appointment of more female teachers will help to some extent, in improvement of the enrolment of the girls. There is, however, shortage of female teachers in the rural areas. Female teachers are available in urban areas but they are reluctant to go to rural areas. Some educated female teachers who are available in rural areas are reluctant to take up jobs in villages other than their own. Thus part-time and formal education may be helpful. Construction of Lady Teachers Quarters and incentives for lady teachers working in out-of-the-way places will have to be provided.

56. As it is not possible to open separate Middle Schools for girls exclusively in all middle school areas, it is essential to provide such facilities as will retain the already enrolled girl-students and also attract others. Among the many reasons conducive to the female education, one would be to post female teachers in mixed middle schools.

57. The old schemes of providing Lady Teachers quarter and sanitary fittings for girls will have to be continued on a larger scale. In addition, it would be desirable to provide a separate common room for the female teachers and girl students as well. The state Taskforce on girls education has also recommended addition of classes VI-VII in all existing 23 Government High Schools for girls, which will ensure educational facilities for girls in these areas. It is proposed to accept these recommendations.

The costs on these programmes have been worked out below :—

(Rs. in lakhs.)

1. Construction schemes for old Government Girls Middle Schools	..	1,45.11
		List attached.
2. Construction of separate common room-cum-Toilets for girls and Lady Teachers in 400 mixed Middle Schools at the rate of 5,000 Rs. each.		20.00
3. Construction of Toilets in 600 Girls Middle Schools at the rate of Rs. 1,000 each.		6.00
4. Construction of Lady Teachers Quarters for 3,000 Lady Teachers at the rate of Rs. 8,000 each.		240.00
	Total ..	4,11.11

58. One of the important ways to help attract and retain pupils at schools would be to provide suitable accommodation. The question of building construction programme has continued to be a difficult problem for years. Owing to financial stringency, it has not been possible for the State Government to sanction suitable amount for these items ever since 1962-63.

59. According to the second educational survey 66.5 per cent primary schools and 93 per cent of the Middle Schools had buildings of their own. Thus in 1966 out of 44,000 primary schools 29,334 and out of 7,000 Middle Schools, 6,500, i.e., a total of

35,834 schools had buildings of their own. It will be necessary to provide funds for their annual repair at the rate of 4 per cent for each primary school buildings and the rate of 8 per cent for such middle schools building. The total cost will be of the order of Rs. 2.10 crores per year.

60. After 1966, practically the construction of Elementary Schools buildings remained suspended. The intermitent floods, especially in plains, have been causing severe damage to the existing buildings. The department conducted a survey of the requirement of buildings in 1865-66. It was assessed that a sum of Rs. 20.00 crores was needed to put the old Elementary Schools in proper shape and to complete the in completed, projects.

61. When the State Government started construction of school buildings on a small scale during the first two years (1969-71) of the Fourth Five-year plan, the State suffered from very serious flood in 1971. The flood damaged several the school buildings further over a large area. It was estimated that a sum of Rs. 7.83 crores would be needed to re-construct them. Out of this, a sum of only Rs. 2 crores was sanctioned leaving again a short-fall of Rs. 5.83 crores. With this fund 5,692 class rooms are being re-constructed. Similarly under the crash programme of Government of India a sum of Rs. 12,49,500 has been provided which is being utilised for the construction of 833 class rooms.

62. During 1966—72, 34,000 teacher units have been sanctioned. Assessing the need of one class room for each of the teacher unit provision will have to be made for 34,000 class rooms. The cost of construction of 34,000 class rooms at the rate of Rs. 4,250 the revised estimated cost of one room works out to Rs. 14.45 crores.

63. 26,400 teachers are to be appointed between 1972—74 and the cost of constructing 26,400 class rooms at the rate of Rs. 4,250 would be Rs. 11.22 crores.

64. The scheme of universal free and compulsory Elementary Education envisages the appointment of 91,380 teachers. This would mean adding an equal number of class rooms. The cost of constructing rooms at the rate of 4,250 per room works out to Rs. 38.80 crores.

The total requirement of funds on the above basis for building construction has been shown in the table below :—

(in crores of Rupees.)

Nature of works.	Table showing requirement of funds for building construction.		
	Non-recurring amount.	Recurring amount.	Total.
1. Maintenance of 35,834 existing school buildings.		2.10	2.10
2. Re-construction of old building and completion of incomplete projects.	20.00	..	20.00
3. Repairs of schools affected by 1971 flood (Additional required).	5.83	..	5.83
4. Construction of 34,000 class rooms against sanctioned teachers unit during 1966—72.	14.45	0.80	15.25
5. Construction of 26,300 class rooms against teachers unit sanctioned during 1972—74.	11.22	0.56	11.78
6. Construction of 91,380 class rooms ..	38.84	2.33	31.17
TOTAL ..	90.34	5.79	96.13

The financial implications of building programme are thus colossal. Therefore, the building programmes of the Elementary Schools have to be tackled in a phased manner.

65. The total number of teachers to be appointed during the Fifth Plan period works out to 51,425. It is proposed to construct class-rooms for 25 per cent of the teachers. Thus 12,856 class rooms are proposed to be constructed. The total cost at the rate of Rs. 4,000 per class-room will work out to Rs. 514.24 lakhs. As this amount will meet the total requirement only partially, it is proposed to launch a campaign to enlist the co-operation of the local people for this.

66. The problem of enrolment and retention in Urban areas needs particular attention. A recent study of municipal schools in the Patna Corporation area by the State Institute of Education has revealed that 84.1 of the students enrolled in the Corporation Middle Schools, 94.8 per cent in U. P. Schools and 96 per cent in L. P. Schools come from the lower income group of people. The survey shows that these schools do not have even the minimum educational facilities like charts, blackboards, maps and furniture. Similar conditions are prevailing in other urban areas.

67. Taking in view the bad shape in which the urban schools are lying the following special programmes for urban areas are proposed to be taken up:—

		[Rs. in lakhs]
1.	Acquisition of land for 50 schools at Patna and other places at the rate of Rs. 0.50 lakh each.	25.00
2.	Construction of office-cum-residence for the 10 supervisory staff in Patna at the rate of Rs. 10,000 each.	1.00
3.	Electrification 100 elementary schools in urban areas of the state including Patna at the rate of Rs. 4,000 each.	4.00
4.	Supply of Drinking water to 100 Elementary schools in Urban areas including Patna at the rate of Rs. 500.	0.50
5.	Construction of office-cum-residence at 33 district headquarters for B.E.O. with cost of land at the rate of Rs. 10,000 each.	3.30
Total ..		33.80

The provision for teaching equipment for urban areas will be included in the general provision on this item.

68. Similarly, provision of suitable teaching and learning aids and equipments is another very important measure to make children feel that their going to school is not a waste of time but an useful experience. This aspect is of great importance from the point of view of both enrolment, retention and improvement of teaching standards. The question of teaching aids and other equipment such as furniture etc. have not been tackled properly so far.

69. It is, therefore, proposed to supply teaching aids and equipments during the fifth five-year plan on a much larger scale so as to help improve the teaching standard and also to attract and retain children in the schools. Furniture of the latest variety prepared by the Asian Regional Institute for School Building Research will be supplied.

70. The amount earmarked to meet non-teacher cost will be spent on purchase of (a) furniture and (b) teaching aids like maps, charts, globes, photos of national heroes, literary figures, etc., and other equipments.

For the primary schools, a sum of Rs. 348.89 lakhs and for Middle / Sr. Basic Schools, a sum of Rs. 183.25 lakhs, i.e., a total of Rs. 532.14 lakhs will be spent on this score.

The annual break-up will be as follows :—

	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	Total.
Primary Schools ..	19.18	38.34	67.72	97.13	126.52	348.89
Middle/Senior Basic Schools.	9.22	18.44	34.99	52.70	67.90	183.25
Total ..	28.40	56.78	102.71	149.83	194.42	532.14

71. Next in importance to the provision of expansion of schooling facilities will be the institution of a number of ancillary services in order to attract and retain the present number of non-attending children who are mostly girls and children coming from the economically lowest class.

These will be the programmes relating to (a) mid-day meals, (b) free supply of text books and stationary, (c) Attendance performance prozed, (d) Supply of school uniforms and (e) Scholarships to poor but talented children.

72. It is proposed to provide mid-day meals to 30 per cent of the 23.71 lakhs of children during the plan period. Cost on mid-day meals at the rate of Rs. 40 per child per year will work out to Rs. 855.60 lakhs.

The calculation has been made on the following basis :—

#### ADDITIONAL ENROLMENT TARGETS IN THE AGE GROUPS.

Year.	6—11.			1—14			Total.			30 % of the targets.
	Boys.	Girls.	Total.	Boys.	Girls.	Total	Boys.	Girls	Total	
1	2	3	4	5	6	7	8	9	10	11
1974-75 ..	1.54	1.60	3.14	1.00	0.60	1.60	2.54	2.20	4.74	1,42,200
1975-76 ..	1.54	1.60	3.14	1.00	0.60	1.60	2.54	2.20	7.74	1,42,200
1976-77 ..	1.54	1.60	3.14	1.00	0.60	1.60	2.54	2.20	4.74	1,42,200
1977-78 ..	1.54	1.60	3.14	1.10	0.60	1.70	2.73	2.20	4.93	1,47,900
1978-79 ..	0.60	2.60	3.20	1.00	0.36	1.86	1.60	2.96	4.56	1,36,800
	6.76	9.00	15.76	5.19	2.76	7.95	11.95	11.76	23.71	7,11,300

#### COST OVER MID-DAY-MEALS AT THE RATE OF 40 PER CHILD PER YEAR.

	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.	Total.	
1	2	3	4	5	6	7	
No. of Children ..	..	1,42,200	1,42,200	1,42,200	1,47,900	1,36,800	7,11,300
Cost Additional ..	..	56,88,000	56,88,000	56,88,000	59,16,000	54,72,000	2,84,52,000
Continuing ..	..	..	56,88,000	1,13,76,000	1,70,64,000	2,29,80,000	5,71,08,000
TOTAL ..	..	56,88,000	1,13,76,000	1,70,64,000	2,29,80,000	2,84,52,000	8,55,60,000

Thus the number of children to be covered under mid-day meals would be year-wise as under :—

1974-75	..	..	..	..	1,42,200
1975-76	..	..	..	..	2,84,400
1976-77	..	..	..	..	4,26,600
1977-78	..	..	..	..	5,74,500
1978-79	..	..	..	..	7,11,300

73. During the fifth five-year plan it is proposed to provide free supply of text books to poor and needy children. The additional enrolment in the class I—V will be 15.76 lakhs. It is proposed to provide 50 per cent of the enrolment with free text book worth Rs. 5 per pupil. The total cost on this scheme for 7.88 lakhs of pupils will work out to Rs. 117.90 lakhs.

74. At the middle stage for 30 per cent of the additional enrolment of 7.95 lakhs, 2.39 lakhs of children are proposed to be provided with free text books at the rate of Rs. 10 per child. The cost will work out to Rs. 91.70 lakhs.

The total cost on this programme would be 209.60 lakhs.

75. As the additional enrolment will consist mostly of the Girls from the lower strata of the society, it is essential to provide school uniforms to them, so that they might come to attend the school without suffering from a sense of inferiority about their dresses.

The cost on providing school uniforms to 25 per cent of the additional girls, i.e., 2.94 lakhs, including girls of scheduled castes and tribes and the weaker section at the rate of Rs. 10 per girl for the plan period will work out to Rs. 84.40 lakhs as detailed below :—

FREE SUPPLY OF SCHOOL UNIFORM TO GIRLS IN 6—14 AGE-GROUP DURING THE FIFTH FIVE YEAR PLAN 1969—74.

Year.	Additional no. of girls to be enrolled in age-group.			25 % of the additional Girls.	Cost of Rs. 10 per girl-pupil.			
	4—11.	11—14.	Total.		Addl.	Continuing.	Total.	
1	2	3	4	5	6	7	8	
1974-75	..	1.60	0.60	2.20	0.55	5.50	..	5.50
1975-76	..	1.60	0.60	2.20	0.55	5.50	5.50	11.00
1976-77	..	1.60	0.60	2.20	0.55	5.50	11.00	16.50
1977-78	..	1.60	0.60	2.20	0.55	5.50	16.50	22.00
1978-79	..	2.60	0.36	2.96	0.74	7.40	22.00	29.40
TOTAL..		9.00	2.76	11.76	2.94	29.40	55.00	84.40

76. Provision of free education and universal enrolment with assured facilities for retention may alone not make elementary education as effective as the universality of approach to the standard of attainment by the majority of children. The universal elementary education must, therefore, confirm to a certain well defined and well understood minimum standard of knowledge, skill, and character ensuring the laying down of a strong foundation for individual excellence with a positive bias for national integration.

The programme of qualitative improvement will amongst others include (a) introduction of work experience (b) strengthening of science education (c) provision for pre-service and in-service training of teachers (d) establishment of community Primary Schools.

A provision for introduction of Work Experience Rs. 2.09 crores has been proposed as per details below :—

	<i>(Rs. in lakhs.)</i>
1. Construction of workshop and workshed in selected 100 Senior Basic Middle Schools at the rate of Rs. 6,000.	60.00
2. Supply of tools, equipments and simple at the rate of Rs. 50 for 46,000 Primary schools.	23.00
3. Supply of equipments, machines and tools in 10,000 Middle schools at the rate of Rs. 250 each.	25.00
4. Appointment of Technical hands and helpers in selected Middle Schools.	15.00
5. Provision of working capital for 46,000 primary schools with Rs. 100 each.	46.00
6. Provision of working capital for 8,000 Middle Schools at the rate of Rs. 500.	40.00
	209.00

77. To effect an improvement in the teaching of Science, which is now increasingly acquiring great importance, provision will have to be made for (a) appointment of Science knowing teachers, (b) training of Science teachers and (c) supply of Science equipments in primary and middle schools.

The cost of supply of simple equipments in the 20,000 Primary Schools during the Fifth Five-Year Plan period at the rate of Rs. 100 per school would be Rs. 20.00 lakhs and for the 10,000 middle schools Rs. 800 per school Rs. 80.00 lakhs. The total cost works out to 1,00.00.

Appointment of 74 science supervisors, one in each subdivision would cost Rs. 27 lakhs. The total cost on improvement of Science Education would work out to Rs. 1,27.00 lakh.

78. During the Fifth Five-Year Plan the State would be requiring 51,425 teachers. To ensure supply of 51,425 teachers the State will have to gear up the primary teacher education colleges. The State would, therefore, be requiring on an average, about 10,285 teachers against the supply of 8,000 teachers from the 112 primary teachers education colleges in the State. Besides this, there is likely to be a backlog of some 20,000 unemployed trained hands in the State at the end of the Fourth Five-Year Plan. Thus there will be surplus of trained hands. But if lady teachers are to be appointed in requisite number, then in that case there will be shortage of women trained hands. Some of the Training Schools for males will need to be converted into those for females.

At present some 2,000 female teachers are trained annually. This will be raised to 4,000 by (i) reducing the period of training from two years to one year by (ii) increasing the intake capacity and (iii) making special provision in male training colleges.

79. Infant class has been added to Primary Schools for School-readiness habits of children of the age 5. This will facilitate the automatic admission of a large number of children in grade I which will ultimately have the way for the implementation of the universal free and compulsory education programme. In order to make this programme a success pre-primary education aids and feeding programme of children are essential. Necessary provision of pre-primary education has been made at the appropriate place.

It is proposed to feed 3,00,000 children every year at the rate of Rs. 40 per child per year. The total cost for the plan period would come to Rs. 6.00 lakhs.

80. The summary of the total proposed outlay on Elementary Education has been shown in the table below :—

Name of programme.	(In lakhs.)
(A) EXPANSION COSTS—	
1. Salaries and allowances of teachers and contingencies—	
(a) Full time (6—11 and 11—14 age-group) ..	3,547.56
(b) Part time .. .. .	375.58
(c) Absorption of 11,000 teachers appointed under the special appointment scheme, 1973-74.	170.49
2. (a) Buildings .. .. .	514.24
(b) Improvement of urban area schools ..	33.80
3. Equipment (excluding for Science and work experience.)	532.14
4. Mid-day Meals .. .. .	855.60
5. Free supply of Text Books and Stationery ..	209.60
6. Free supply of School uniform .. .. .	84.40
7. Attendance Prizes .. .. .	49.38
8. Ashram schools .. .. .	372.00
TOTAL ..	7,157.49



## (B) QUALITATIVE IMPROVEMENT—

1. Work experience	..	..	..	209.00
2. Science Education	..	..	..	127.00
3. Community Primary Schools	..	..	..	587.00
4. Strengthening of existing Teachers Training Institution.				105.00
5. In Service Education of Teachers	..	..	..	20.00
			TOTAL	1,048.00

## (C) HOSTELS AND SCHOLARSHIPS—

1. Hostels and Scholarships in Community in Primary Schools.				377.63
2. Scholarships (Upper Primary)	..	..	..	40.23

(D) PRE-PRIMARY SCHOOLS	..	..	..	100.00
			TOTAL—(A)+(B)+(C)+(D)	8,723.26

(E) SCHOOL FEEDING	..	..	..	600.00
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**SECONDARY EDUCATION.**

81. Some of the important problems of Secondary Education requiring to be tackled during the Fifth Plan period are mentioned below :—

- (a) Rapid and unplanned expansion of the institutions for Secondary Education has resulted in the lowering of standards. Large number of High Schools have sprung up during the preceding plan periods. Most of these schools depend on the fees from the students, scholars fund and grants from Government. The income from fees and grants is utilised for payment of salary to the teachers and staff and no resources is left for development of educational facilities such as class rooms, laboratories, libraries, teaching aids etc. The teacher pupil ratio in most of the schools is not according to the desired standard.
- (b) There are certain areas and pockets in the State where facilities for secondary education are still not available. This imbalance is all the more pronounced in tribal areas and in respect of education for girls. The newly created districts have no Government Schools at the headquarters.
- (c) The existing Teacher's Training Colleges are ill-equipped. Some of the Government Training Colleges do not have buildings of their own. The syllabus of Training College needs to be revised. There is shortage of trained teachers of Mathematics, Science and Minority Languages and Work experience.

- (d) Good education is dependent upon good and efficient teachers. The teachers need to be trained regularly so as to keep them abreast with the latest development in the field of education, specially in the techniques of teaching.
- (e) Due to greater financial and administrative involvement of Government in the non-Government Secondary Schools, it is necessary to decentralise the administration of secondary education by setting up school boards at the district level and entrusting them with the responsibilities of disbursement of grants and regulating the service conditions of teachers.

82. Taking an overall view, the priorities are indicated in the following paragraphs :—

(i) It is proposed to give due emphasis on consolidation and improvement of quality during the Fifth Plan period. For this purpose, it is proposed to develop some of the selected secondary institutions up to the optimum standard and others up to a certain minimum standard. It is proposed to give adequate grants to the existing secondary institutions so that they may come up to the desired level. As recommended by the Education Commission, the teaching of Science and Mathematics will be made compulsory. The teaching of work experience will gradually be made obligatory. New schools in the tribal areas and other important and viable pockets will be operated. For optimum development, facilities of hostels, libraries, laboratories, residential accommodations etc. will be given.

(ii) The success of the programme will depend largely on the competence of the teachers, their commitment to the welfare of the students in their charge and their dedication to their profession. It is proposed, therefore, to take steps to involve the teachers intimately in the planning and implementation of the programmes, to provide them with satisfactory conditions of work and service and to emphasize their proper training, specially in service training. It is proposed to train adequate number of teachers so that the teaching of Science, Mathematics, Minority languages and work experience can be introduced in the curriculum of the secondary schools without any difficulty.

In order to improve the service conditions of the teachers and to ensure that they are paid properly and timely, it is proposed to re-organise the Board of Secondary Education and set up Education Boards at the district levels.

(iii) It has been decided to adopt the uniform pattern of 10+2+3 courses of secondary education. Now the Secondary Education will have two main objectives :—

- (a) To prepare a student for the University ;
- (b) To prepare a student for some vocation in life.

A common course of General Education will be provided. This will include a number of elective courses covering Mathematics, Natural and Social Sciences and Humanities. The other stream will be vocational and would prepare students for careers in agriculture, Industrial and service sector as well as for various programmes of self-employment.

(iv) Great stress has been laid on improvement of text books. It is, therefore, proposed to set up State Council of Educational Research and Training on the pattern of N.C.E.R.T. The work and programme of Text Book Corporation will be expanded.

(v) The enrolment of girls in the Secondary Schools is poor. This is all the more so among the Scheduled Castes and Scheduled Tribes. It is proposed to exempt tuition fees of girl students in a phased manner. This will provide incentive to the girls and will lead to their larger enrolment.

(vi) Secondary Education among the Scheduled Castes and Scheduled Tribes is poor. Schemes have, therefore, been included for opening of new schools in the tribal areas. Scheme for providing hostel facilities for Scheduled Castes and Scheduled Tribes have also been included.

83. Of the 64 Government Schools, as many as 50 are old schools. Majority of these schools lack proper buildings, equipments and teaching appliances. As many as 11 of the schools do not have buildings of their own. The existing buildings of a large number of schools are too old and need repair. The accommodation available is also not enough. It is, therefore, necessary to improve and expand the existing schools buildings. Adequate hostel facilities are not available in all government schools. There is acute problem of residential accommodation for the teachers, especially lady teachers.

It is necessary to provide for teaching of Science, work experience and another Indian language in the Secondary Schools. Necessary equipment and teaching appliances will also be supplied.

It is proposed to appoint 400 teachers in the Government Secondary Schools during the Fifth Plan period.

A total plan outlay of Rs. 180 lakhs is provided for this scheme during the Fifth Plan period.

84. The existing pattern of Secondary Education covers children of age-group 14—17 comprising of classes VIII to XI. The present position of enrolment of children of this age-group is given below. The expected number of children of this age-group by the end of the Fifth Five-Year Plan is also indicated in the table :—

Population and Enrolment of children in the Secondary Schools (Age-group 14—17.)

(Figures in lakhs.)

		1961-62.	1962-63.	1968-69.	1973-74.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
Population of 14—17 age-group.	Boys ..	13.23	15.40	18.76	19.87	20.26	20.67	21.08	21.50	21.93
	Girls ..	14.00	15.62	18.46	19.04	19.42	19.81	20.20	20.61	21.02
	TOTAL ..	27.23	31.02	37.22	38.91	39.68	40.48	41.28	42.11	42.95
Enrolment and percentage of enrolment of population in the agegroup.	Boys ..	2.53 (19.1)	3.49 (22.7)	4.68 (24.9)	6.25 (31.5)	6.62 (32.7)	7.05 (34.1)	7.55 (35.8)	8.10 (37.7)	8.75 (39.9)
	Girls ..	0.23 (1.6)	0.33 (2.1)	0.44 (2.4)	0.75 (3.9)	0.96 (4.9)	1.19 (6.0)	1.43 (7.1)	1.80 (8.7)	2.25 (10.7)
	TOTAL ..	2.76 (10.13)	3.82 (12.3)	5.12 (13.8)	7.00 (17.9)	7.58 (19.1)	8.24 (20.4)	8.98 (21.7)	9.90 (23.5)	11.00 (25.6)

85. By the end of the Fifth Plan period additional three lakhs boys/girls will come to secondary schools. The growth rate works out to about 60,000 children per year.

The unutilised capacity in most of the existing Government Schools will take care of the bulk of the additional enrolment during the Fifth Plan. Assistance will be given to the existing schools for expansion of buildings, laboratories and additional

furniture and equipment, wherever necessary in order to help them to take additional number of boys and girls. It is, however, proposed to set up 30 Government Schools including 6 in Chotanagpur and Santhal Parganas. These schools will be located mostly in those areas which are backward and in which private initiative will not be forthcoming. In addition 30 new non-Government schools will be subsidised by the State Government during this period.

An outlay of Rs. 1,25.00 lakhs is proposed for this scheme during the Fifth Plan period.

86. Majority of the Secondary Schools do not have been basic facilities required in a school. Many teachers of these schools are untrained. Many of the schools do not have any facilities for science and craft teaching. The necessary appliances and tools are not available.

It is, therefore, proposed to develop selected secondary schools up to optimum level so that these schools may serve as pace-setters.

As recommended by Education Commission the teaching of Science, Mathematics and work experience will be introduced.

It is, therefore, proposed to appoint teachers for teaching science, Mathematics, work experience and minority languages.

87. There are about 2,700 non-Government Secondary Schools employing about 30,000 teachers. There is a great disparity between the actual requirement and the grants given to those schools by the State Government. It is, therefore, proposed to give suitable grants to these non-Government Secondary Schools so as to bridge this gap gradually.

New teachers will have to be appointed for teaching of minority language and science. These schools will have to be provided with teaching appliances. Where necessary suitable grants will have to be given for improving class rooms, laboratories, library, etc.

In the selected schools for optimum development teaching of work experience will be introduced. Here also the teacher-pupil ratio will have to be improved. Necessary grants will have to be given for improvement of accommodation. Necessary equipments and other appliances will be given.

A total Plan outlay on Rs. 12,50.00 lakhs is provided under this scheme during the Fifth Plan periods.

88. The standard of Secondary Schools cannot improve unless the teachers are regularly and properly trained. The importance of in-service training of teachers cannot be over emphasised. It is, therefore, necessary to arrange for re-orientation and refresher courses for the teachers. This would enable the teachers to keep abreast with the modern techniques in the field of education.

It is, therefore, proposed to run 125 refresher course of 30 days' duration and 500 reorientation courses of 10 days' duration. It is also proposed to run 20 courses of 15 days' duration for training of resource personnel.

At present there are 5 Teachers' Training College in the State. In addition 2 Training Colleges, one for men and the other for women are also functioning as Constituent Units of the Patna University. Teachers' Training Colleges at Ranchi, Deoghar and Samastipur do not have buildings of their own. It is, therefore, proposed to construct suitable buildings at these places including residential accommodation for the principals, teachers and others.

Taking all factors into consideration it is proposed to set up 5 more new Training Colleges so as to meet the requirement of trained teachers.

An outlay of Rs. 1.26 lakhs is provided for the above schemes during the Fifth Plan period.

89. At present the entire grants to non-Government Secondary Schools are disbursed through Board of Secondary Education. The Board of Secondary Education is also responsible for giving recognition to schools, looking after service conditions of the teachers, fixation of pay, etc. The primary concern of the Board was to exercise proper supervision over the functioning of the non-Government Secondary Schools. This aspect of the work has been neglected in the past. It is, therefore, necessary not only to strengthen and reorganise the Secondary Board of Education but also to decentralise the administration relating to non-Government Secondary Schools at the district level. It is proposed to constitute District Education Board and Municipal Education Board in Corporation.

The Board of the Secondary Education is proposed to be made autonomous with a full time President.

There are various offices of Education Department in Patna scattered all over Patna. It is very necessary to have a combined building so that all the different offices can be located in one building. Already land is available for this purpose. It is, therefore, proposed to construct a combined office building for all the offices of Education Department including Board of Secondary Education.

An outlay of Rs. 1,00.00 lakhs is provided in the Fifth Plan period for this scheme.

90. It is proposed to introduce post-secondary classes in the Netarhat school. In order to equip this institution to run post-secondary classes, it is necessary to construct class rooms, quarters for teachers and hostels for students.

A sum of Rs. 25.00 lakhs is provided for this scheme during the Fifth Plan period.

91. With a view to identify and develop talent from rural areas Government of India have instituted a scheme of National Scholarships at the stage of Secondary Education. Government of India have desired that the State Government should also institute similar scholarships in order to provide benefits to larger section of students. Again a section of meritorious students reading in urban schools, through coming from poor homes, is deprived of the benefits of this scheme.

It is, therefore, proposed to institute 650 scholarships similar to the National Rural Scholarships during the Fifth Five-Year Plan, out of which one scholarship will go to each Community Development Block and the remaining scholarships will be distributed to urban localities and to more thickly populated blocks.

An outlay of Rs. 75.00 lakhs is provided for this scheme.

92. It is considered necessary to organise an Association of Parents and Teachers. The primary function of this administrative machinery will be to implement the programmes to be formulated by the Bihar Parent Teacher Association which will be the apex body to guide the entire movement. It will work as an Information Bureau, and clearance house of knowledge and skill on academic and other issues which will ensure the progress of students in and out-side the school, halt the growing students' unrest, and encourage discipline amongst them. Necessary staff will be provided.

Suitable grant will also be given to the Parent-teacher Association so that it may play more effective role.

An outlay of Rs. 2.50 lakh is provided for this scheme during the Fifth Plan period.

93. Education through Audio-Visual media has gained popularity. There is a proposal to provide educational television service to schools for supplementing class room teaching. In Bihar the programme in the initial stage will cover Elementary and Secondary Schools. It is proposed to supply T. V. sets to selected secondary schools on subsidy basis.

There is already a scheme of School Broadcast through A. I. R. for students of classes VIII to XI. Presently about 1,000 schools are covered under this programme. Since there are about 2,700 secondary schools it is proposed to extend this programme to cover another 1,000 schools under the School Broadcast Listening Programme during the Fifth Five-Year Plan. These schools will be provided a good listening set on subsidy basis.

An outlay of Rs. 2.50 is provided under this scheme during the Fifth Five-Year Plan period.

94. The Bihar Text-Book Publishing Corporation, has already acquired a modern press with the provision of offset printing. It has already taken up the work of preparation and production of standard text-books for the schools in the State. The activities of the corporation will, however, require to be further strengthened and improved the corporation will be expanded during the Fifth Plan.

It is proposed to grant suitable loans to this Corporation during the Fifth Plan period for which an outlay of Rs. 20 lakhs is provided.

95. There is already an Institute of Education in the State which arranges in-service training courses for the teachers. Besides there is also a separate Institute of Science and another Institute of English. All these institutes work separately and there is no co-ordination between them. It is necessary that all these institutes work under a co-ordinated programme. It is, therefore, proposed to set up a State Council of Educational Research and Training on the pattern of National Council of Educational Research and Training, New Delhi.

It will be necessary to expand the existing building and also to construct new buildings together with attached hostels and teachers' quarters.

An outlay of Rs. 25.00 lakhs is proposed in the Fifth Plan period for this scheme.

96. It is proposed to provide free education for all girls in the Fifth Plan period by granting exemption from payment of tuition fee to the girl students of class IX. This may be extended to classes X and XI gradually. This is dependent upon availability of funds.

Further it is proposed to provide additional facilities, such as, separate bath room, common room, etc. for the girls in co-educational institutions.

An outlay of Rs. 75 lakhs is provided in the fifth plan period for this scheme.

97. Under the pattern of 10+2+3 the stage of +2 is the stage of post-Secondary Education.

At the Post-Secondary stage there would be two broad types of courses, academic and vocational. The academic courses in science and humanities will lead to higher education at the degree level for general, technical and professional courses and the vocational courses will be meant for those who will treat the Post-Secondary stage as

the terminal and will enter different vocations for which they have been trained. The academic courses will be provided in selected institutions such as good secondary schools or separate institutions. The vocational courses will be introduced in selected Secondary institutions or in separate institutions, on the basis of survey of the needs different courses and of employment of students trained in different vocations. Such vocational courses will also be given in the existing I. T. Is., Agricultural Schools, Polytechnics, etc. Since the academic courses will lead to higher education in general technical or professional courses, the institutions will have to be well equipped by staff and other equipments. Even where the Post-Secondary classes are added to the selected Secondary schools, necessary provision will have to be made for accommodation duly qualified staff and equipments. The post will still be higher where vocational courses are started in separate institutions. So far as the vocational courses are concerned they will be of different types to match with the existing employment opportunities in the different sectors and according to the local needs of the areas in which the institutions are situated. Thus necessarily a large variety of vocational courses will have to be introduced and these will be spread over in the different regions of the State.

It is proposed to set up 100 Post-Secondary schools (both vocational and non-vocational). An outlay of Rs. 500 lakhs is provided for this scheme in the Fifth Five-Year Plan period. In addition, funds will be provided in the budgets of other departments such as Agriculture, Industries, Culture and Health.

ABSTRACT OF PLAN OUTLAY DURING THE FIFTH PLAN PERIOD (1974-79) IN RESPECT OF SECONDARY EDUCATION.

(Figures in lakh rupees)

Name of the Scheme.	Total State.	Total Chhota agpur.	1974-75	1975-76	1976-77	1977-78	1978-79
1	2	3	4	5	6	7	8
1. Improvement and expansion of Government Secondary Schools.	1,80.00	41.00	34.60	40.00	36.40	34.80	34.20
2. Establishment of New Government Secondary Schools.	1,25.00	25.00	9.50	19.00	32.50	32.50	31.50
3. Development of Secondary Schools up to optimum level/minimum level.	12,50.00	3,19.00	1,21.00	1,91.60	2,51.20	3,10.80	3,75.40
4. Qualitative Improvement of Teachers.	1,20.00	40.00	23.20	23.20	23.20	25.20	25.20
5. Reorganisation of the Board of Secondary Education Decentralization.	1,00.00	17.00	15.00	22.00	21.00	21.00	21.00
6. Improvement of Netarhat School, Palamau.	25.00	25.00	4.00	5.25	5.25	5.25	5.25
7. Talent Scholarship ..	75.00	19.00	3.00	9.50	16.50	23.00	23.00
8. Parent-Teacher Association	2.50	..	0.50	0.50	0.50	0.50	0.50
9. Use of Audio-Visual media	2.50	0.60	0.50	0.50	0.50	0.50	0.50
10. Development of Text-Book Corporation.	20.00	..	4.00	4.00	4.00	4.00	4.00
11. S. C. E. R. T. ..	25.00	..	5.00	5.50	5.50	5.00	4.00
12. Special Scheme for Girls ..	75.00	19.00	11.00	13.00	15.00	17.00	19.00
13. Post-Secondary Classes ..	5,00.00	25.00	2,50.00	75.00	1,00.00	1,25.00	1,25.00
Total ..	25,00.00	6,30.65	2,81.30	4,09.05	5,11.55	6,04.55	6,93.5

## UNIVERSITY EDUCATION.

98. The problems of higher education are the following :—

(a) Rapid and unplanned expansion of the institutions for higher education has resulted in the lowering of standards. Most of the colleges which have sprung up are sub-standard, lacking in adequate physical resources and marked by a complete absence of the proper academic atmosphere. Colleges in the urban areas are overcrowded with enrolment figures ranging between 2,000 and 6,000 whereas in many of the colleges in rural areas, the enrolment figures range between 200 and 400 ; and, therefore, they are not viable. Most of these institutions depend on the tuition fees from the students and grants from the Government. The income from the fees and the grants is utilised for payment of salary to the teaching and non-teaching staff. Very little is left for the development of educational facilities like class rooms, laboratories, libraries and hostels. They are unable to take advantage of the grants from the University Grants Commission because of their inability to meet the requirement of the matching share.

(b) In addition, serious imbalances in the facilities for higher education for women, weaker sections, etc. exist at present. Out of 275 colleges, only 20 are exclusively for women, 5 of which are constituent and 10 grant-in-aid colleges. Similarly, Scheduled Castes and Scheduled Tribes are considerably behind the general population in matters of higher education, though they constitute 24 per cent of the State's total population. Besides the social imbalances, regional imbalances also exist in the development of higher education. There are some pockets in the backward regions like Chotanagpur Division and the district of Santhal Parganas where adequate provision for higher education does not exist.

(c) Even, some of the good colleges, which are constituent colleges of the Universities, have suffered because the available resources for higher education are thinly spread out. Although the number of students in these colleges has increased considerably, the facilities have not increased appreciably. New equipments have not been added to the laboratories ; books added to the libraries are insufficient and the amenities in respect of hostel facilities, common-room, playground, etc. have not increased proportionately.

(d) As compared to one university in 1952, 7 universities including the Kameshwar Singh Sanskrit University, Darbhanga are now functioning in the State. Many universities do not yet have their own campus. The campuses set up by some of the Universities are still incomplete. The post-graduate classes run by the universities suffer on account of inadequate facilities in respect of class-rooms, laboratories, libraries, teaching staff, hostel accommodation, etc.

(e) Residential and recreational facilities for students in colleges and universities are inadequate. Over-all residential facilities, hardly exist for about 8-9 per cent of students in colleges and universities ; recreational facilities like common-room, gymnasium, stadia, play-grounds and swimming pools are lacking almost everywhere. Absence of these facilities forces bulk of students to stay in private lodgings usually unrecognised colleges/universities. Living conditions in such lodgings are unhealthy, unsatisfactory and, not unoften, undesirable. They do not provide congenial atmosphere for research and academic work. The recent unrest amongst students has highlighted the importance of and need for giving high priority to residential and recreational facilities for students, such as hostel accommodation, swimming-pool, play-ground, gymnasium and stadia, Day-Centres as also reading-room and common-room facilities.

(f) Universities should be not merely centres of teaching ; they should also be centres of research : teaching and research should go together. Unfortunately, the investment in research activity in our universities has been woefully meagre. Research



work in science is inadequate and is almost nil in technology. Even the standard of such research work as is being carried out is poor.

(g) The quality of education depends essentially upon the quality of teachers. The service conditions of the teachers should be such as to attract and retain in the academic profession men of outstanding ability, competence and dedication. During the Third and the Fourth Plans, special efforts were made for improving substantially conditions of work and service of teachers. The pay-scales, as prescribed by the U. G. C. were implemented in all the affiliated and constituent colleges and university departments. But, teachers are still dissatisfied and charters of demands, like dearness allowance at the Central rates, Triple Benefit Scheme, medical facilities, taking over of private colleges by the State Government and many other demands are every now and then placed before the State Government. Adequate provision has to be made for revised pay-scale/dearness allowance for the teachers. The burden of all these additional salaries, allowances falls on the Government.

(i) With the multiplication of colleges and university departments and consequent increase in the number of students and teachers, the administrative problems of the university have been increasing in range and complexity. The university administration remains pre-occupied with the urgent administration and official matters, such as, payment to teaching and non-teaching staff, disciplinary cases, problems of student unrest, conduct of examinations and publication of results, maintenance of law and order and distribution of grants and their audit. The officers of the University from the Vice-Chancellor down to the lower-levels, have very little time and energy to think, act and give direction on academic matters. Colleges and departments are rarely supervised and inspected. Examinations schedules have been disturbed and as such there are examinations almost all round the year, as a consequence of which teaching work is seriously impaired. The administrative machinery at the university level needs to be rationalised, reorganised and strengthened.

99. Taking an over-all view, the priorities are indicated in the following paragraphs:—

(i) It is proposed to concentrate on consolidation and improvement of quality during the Fifth Plan period. Selected institutions are proposed to be developed up to optimum standard, while the remaining institutions will be developed up to a certain minimum standard. Establishment of colleges for women and in backward areas so far uncovered will receive high priority. Even in existing institutions, expansions cannot be avoided, such as development of the campus, expansion of post-graduate departments in the newly-born Mithila University and expansion of residential and recreational activities for students.

(ii) The following will be the order of priority in the implementation of the problems for higher education during the Fifth Plan :—

- (a) Completion of spill-over schemes ;
- (b) *Campus development projects*.—Under this programme there are a number of schemes under execution which will have to be completed. The schemes include acquisition of land, construction of buildings for office, class-rooms, libraries, laboratories, residential houses, etc.
- (c) Strengthening of existing Post-graduate Departments and opening of new Post-graduate Departments in certain selected subjects according to needs and potentialities. The Mithila University, where there is practically little provision for post-graduate teaching, would receive higher priority.
- (d) Provision for research projects.
- (e) Development of selected good colleges up to optimum standard.
- (f) Development of other colleges up to the minimum standard.
- (g) Student welfare schemes, including provision for residential and recreational facilities.

- (h) Opening of new colleges for women.
- (i) Strengthening and reorganisation of university administration.
- (j) Introduction of Three-Year Degree Course.

100. A large number of schemes for the construction of administrative blocks, library buildings, examination-*cum*-multi-purpose halls and quarters for the officers and staff of university, etc. were taken up for construction during the Fourth Plan period. Some of these schemes could not be completed during the Fourth Plan period and will, therefore, have to be completed in the Fifth Plan period.

It is also necessary to develop the campus of the universities. Some of the universities do not have even administrative blocks. None of the universities have examination-*cum*-multi-purpose halls. Quarters for officers and university staff are inadequate.

An outlay of Rs. 3,25 lakhs (State's share) is proposed for the completion of Spill-over Schemes.

101. The main objective behind the programme of Post-graduate teaching is qualitative improvement in the post-graduate teaching. Improvement of Post-graduate education will have an immediate impact on the quality of teachers which will in turn improve the quality and standard of the entire educational system. Better post-graduate education will lead to better research work.

The Education Commission has recommended that the facilities for Post-graduate education should be more than doubled within a period of five years.

Salient features of this scheme are—

- (1) Strengthening of existing post-graduate departments with additional teaching accommodation, teaching personnel, teaching equipment and library services.
- (2) Opening of post-graduate teaching in new subjects and faculties as follows :—
  - (a) *Patna University*.—Teaching of one foreign language (German), Diploma in Journalism and Master's degree in Home Science, Geo-Chemistry.
  - (b) *Bihar University*.—Teaching of one foreign language (French), Post-graduate course in Linguistics, and Home Science.
  - (c) *Bhagalpur University*.—Teaching of one foreign language (Chinese) and Library Science.
  - (d) *Magadh University*.—Teaching of one foreign language (Japanese) and Post-graduate course in Commerce.
  - (e) *Ranchi University*.—Diploma course in Business Management, one foreign language (Russian), Computer course and Master's degree in Commerce.
  - (f) *Mithila University*.—Establishment of Vidyapati Institute of Languages and Linguistics and teaching of one foreign language (Nepali).
- (3) Establishment of the Institute of Physical Science (Physics, Chemistry, Botany and Zoology).
- (4) Establishment of the Institute of Social Sciences.
- (5) Establishment of the Institute of Maithili Folk, Arts, Drama and Music.
- (6) Hostel facilities.

A total outlay of Rs. 1,68.00 lakhs is proposed for this scheme.

102. In order to develop selected good colleges as pace setters or model institutions the following programmes are proposed during the Fifth Plan :—

- (a) Additional teaching accommodation.
- (b) Laboratory facilities.

- (c) Library services including provision of Book Bank.
- (d) Additional teaching personnel, where necessary on the basis of work-load.
- (e) Residential and recreational facilities for students.
- (f) Construction of quarters for teachers.
- (g) Introduction of new department wherever necessary.

A provision of Rs. 1,10.00 lakhs has been made for the implementation of this scheme. It is proposed to develop at least one college at the district headquarters up to optimum standard.

103. There has been a Mushroom growth of colleges during the past few years. These colleges do not have adequate facilities and are not economically viable. It is proposed to amalgamate some of the colleges so as to make them viable.

It is also necessary to develop and improve these colleges upto the minimum standard. Following programmes are proposed during the Fifth Plan Period to develop these colleges upto the minimum standard:—

- (a) Extension of teaching accommodation.
- (b) Teaching of new subject.
- (c) Supply of teaching equipment, including laboratory facilities.
- (d) Extension of library services.
- (e) Construction of hostels.
- (f) Grants for all-round development of these colleges.

A total outlay of Rs. 60.00 lakhs has been proposed for the development of colleges under this scheme.

104. Residential and recreational facilities for students in colleges and Universities of Bihar are thoroughly inadequate. Overall residential facilities for hardly 10 per cent of students exist in the Colleges and Universities. Recreational facilities like swimming pools, Gymnasias, building grants etc. are conspicuous by their absence. In the absence of adequate residential facilities, students (other than those who stay with their natural guardians and the limited number provided in hostels) stay in private lodgings, usually unrecognised by the Colleges and Universities. Living conditions in such unrecognised lodgings are unhealthy and unsatisfactory. The condition of students in affiliated Colleges is still worse. Very few of the affiliated Colleges have hostels worth the name. The following programmes have been chalked out during the 5th Five-Year Plan to achieve this end:—

- (1) Common room facilities and reading room.
- (2) Construction of Studio, Swimming pools and Gymnasias.
- (3) Health Centres.

The Schemes regarding construction of hostels have already been included in the Schemes relating to development of selected Colleges up to optimum standard and development of Colleges up to the minimum standard.

A provision of Rs. 65.00 lakhs has been made for providing recreational facilities of students.

105. The administration of University has become very complex, inasmuch as, the main objectives of the University, *i.e.* research and teaching, have been lost.

It is necessary that the administration of University should be reorganised in such a manner that the Vice-Chancellor may have sufficient time to guide and supervise the academic life of the University, leaving administration and financial aspects of the work to other authorities of the University. For this purpose it is necessary to create a number of posts like, Pro-Vice-Chancellor, Financial Advisor, etc. An outlay of Rs. 30 lakh is proposed for the purpose of reorganising and strengthening of the University administration.

106. At present there are only 27 Women's Colleges in the State. In 1972-73 there were 29,149 girls on the roll in the various colleges. By the end of the 5th Five-Year Plan, additional 30,000 girls will be going to colleges. During the 5th Plan period the emphasis is on consolidation rather than on development. As such even though the number of Colleges meant for girls may go up by the end of the 5th Five-Year Plan, still there would be enough gap for which it will be necessary to provide Evening Colleges for women. It is, therefore, proposed to encourage tutorial colleges for women by giving them suitable and adequate grants. An outlay of Rs. 10 lakhs is, therefore, provided under this scheme during the 5th Five-Year Plan period.

107. The quality of Education assumes crucial significance at the University stage and consequently, programmes of qualitative improvement at this stage will have to receive top priority. This objective, to a great extent, can be achieved if the uniform pattern of school and college classes 10+2+3 as recommended by the Education Commission and approved as the National Policy of Education is adopted.

In view of paucity of funds, it is not possible to introduce three-year degree course both for pass and Hons. courses. It is, therefore, proposed to introduce three-years' degree course in Hons. course (Arts and Science) only.

An outlay of Rs. 110.00 lakhs is provided in the Fifth Five-Year Plan under this Scheme.

108. Knowledge and professional skill at the University level are today demanded by people of a very different age-groups with a different educational background. There is, therefore, need for the possibilities of informal University learning to be explored. Correspondence courses, to a very great extent, will be able to provide opportunities to a large number of learners. Provision for such correspondence courses is available today in the University of Delhi. It is proposed to start a correspondence course in the Universities of Patna and Ranchi.

The proposed school of correspondence courses will provide facilities for instruction through correspondence for B.A. pass courses. The syllabi, duration, examination and degree for these courses will be the same as for other students of the Universities of Ranchi and Patna. To begin with, this school will impart instruction in the following subjects for the B. A. pass courses: English, Hindi, Urdu, History, Political Science, Economics, Philosophy, Commerce, Maths. and Sanskrit.

The School will be headed by a Director in the time-scale pay of a University professor. It is proposed to have one full-time teacher in all the above subjects and two part-time teachers in each of the above subjects. The total estimated cost on this scheme in Rs. 12 lakhs during 5th Plan.

Abstract of programmes and proposed outlays during the Fifth Five-Year Plan period.

(Figures in lakhs.)

Serial no.	Name of programme.	Universities.									Total Chota-nagpur.	Remarks.
		Patna.	Bihar.	Bhagal-pur.	Ranchi.	Magadh.	Mithila.	Sans-krit.	Total State.			
1	2	3	4	5	6	7	8	9	10	11	12	
1	Spil-over at campus development.	45.00	32.00	50.00	53.00	39.00	84.00	22.00	325.00	54.00		
2	Development of Post-Graduate teaching.	26.00	24.00	22.00	33.00	23.00	38.00	2.00	168.00	33.00		
3	Development of research	3.00	1.00	2.00	2.00	1.00	1.00	0.25	10.00	1.45		
4	Development of selected colleges up to optimum level.	16.00	18.00	16.50	21.50	17.00	21.00	..	110.00	21.50		
5	Development of colleges up to minimum level.	..	11.00	10.00	11.00	16.00	11.00	1.00	60.00	11.00		
6	Students' welfare	..	10.00	11.00	11.00	10.00	11.00	1.00	65.00	12.00		
7	Strengthening of University	3.15	4.65	4.65	4.65	4.65	8.25	..	30.00	4.65		
8	Tutorial colleges for women.	..	..	..	..	..	..	..	10.00	3.00		
9	Three-year Hons. Degree Course.	..	..	..	..	..	..	..	110.00	27.50		
10	Correspondence Course	..	..	..	..	..	..	..	12.00	..		
TOTAL		..	103.15	101.65	116.15	136.15	110.65	174.25	26.25	900.00	168.10	

109. For the development of Institutes of Higher Learning and Research a sum of Rs. 44.00 lakhs has been proposed to be spent during the Fifth Five-Year Plan. The details are given below :—

Name of institutes.	Amount (Rs. in lakhs.)
1. K.P. Jaiswal Institute	6.00
2. Prakrit Institute	8.00
3. A.N. Sinha Institute	10.00
4. Mithila Institute	7.00
5. Arabic and Persian Institute	5.00
6. Nav Nalanda Mahabihar Pali Institute	8.00
TOTAL	44.00

110. For the development of various languages a sum of Rs. 61.00 lakhs have been proposed to be spent. The details of which are given below :—

		Amount (Rs. in lakhs.)
1. Rastrabhasa Parishad	.. ..	11.00
2. Sanskrit Education	.. ..	32.00
3. Arabic and Persian Education	.. ..	8.00
4. Development of Hindi	.. ..	10.00
5. Bihar Urdu Academy	.. ..	10.00
TOTAL		61.00

111. There are two schemes under the head of social education, one is for adult literacy and another is for development of Government and Public libraries. An outlay for Rs. 1,60.00 lakhs is proposed during the Fifth Five-Year Plan.

		Amount (Rs. in lakhs.)
1. Adult Education	.. ..	80.00
2. Development of Libraries	.. ..	80.00
TOTAL		1,60.00

112. For development of music, dance and drama and other cultural activities, an outlay of Rs. 61.00 lakhs is proposed as detailed below :—

		Amount (Rs. in lakhs.)
1. Archaeology and Museum	.. ..	32.10
2. Grants to cultural organisation	.. ..	20.00
3. Bhartiya Nritya Kala Mandir	.. ..	4.53
4. Patna School of Arts	.. ..	5.00
5. Arts and Literature	.. ..	7.50
TOTAL		69.13

113. Besides there are other schemes for which an outlay of Rs. 4,04.61 lakhs is proposed during the Fifth Plan period. The details are given below :—

		Amount (Rs. in lakhs.)
1. Sainik Schools	.. ..	99.00
2. Educational Administration	.. ..	2,10.00
3. Juvenile delinquency	.. ..	10.00
4. Physical Education	.. ..	85.25
TOTAL		4,04.61

### TECHNICAL EDUCATION.

114. Before the beginning of the First Five-Year Plan there were only two Engineering Colleges and one Engineering School in the State. In these institutions training facilities for 132 students at degree and 100 students at diploma level were available. By the end of the Third Five-Year Plan six Engineering Colleges, 12 Polytechnics and 3 Mining Institutes having admission capacity of the order of 1,270 at degree level and 2,129 at diploma level, were established.

Post-graduate level teaching in Electrical and Electronics, Mechanical, Civil, Metallurgical, Chemical Engineering and Space Rocketry and post-graduate diploma in Civil Engineering were started in some of the colleges before the beginning of the Fourth Five-Year Plan.

115. During the Fourth Plan period there was decline in the demand of Engineers and technicians, as a result of which admission to Engineering Colleges and Polytechnics had to be curtailed drastically. Consequently, in the Fourth Five-Year Plan major expenditure was incurred on consolidation, improvement and completion of the schemes which were already sanctioned. In keeping with the above objectives, Faculty Development Programme, construction of a staff quarters, establishment of a Women's Polytechnic, provision of students amenities, modernisation, diversification of courses, etc., were taken up. Against an outlay of Rs. 310 lakhs for technical education in the Fourth Plan, the actual expenditure is likely to be the order of Rs. 119 lakhs.

116. During the Fourth Plan period facilities have been created for post-graduate study, research in Electrical, Electronics, Civil, Mechanical, Metallurgical, Chemical Engineering and Space Rocketry and Instrumentation Technology. Research facilities are also available in Physics, Chemistry and Mathematics in some of the Engineering Institutions. At diploma level, courses in Production Technology have been started. The course is being run on sandwich pattern. Part-time courses at diploma level in Civil, Electrical and Mechanical Engineering are being conducted at Ranchi and Jamshedpur.

Programmes such as Quality Improvement by Central Government and Faculty Development Programme by State Government have been sanctioned for training of teachers both for long and short-term duration. Efforts are made to bring the curriculum up to the needs of the industry both at degree and diploma levels. A number of scholarships to Post-graduate, degree and diploma level students are being awarded to the meritorious and deserving students. Some free-studentship are also being awarded.

117. The admission capacity of the Technical Institutions established at degree and diploma levels till the end of Third Five-Year Plan which are 1,376 and 2,129 respectively had to be curtailed drastically due to unemployment amongst the Engineers and technicians. It is proposed to increase gradually admission to Engineering Colleges and Polytechnics, Mining Institute to the sanctioned capacity. Keeping in view of the needs of Industry, necessary diversification will be made at degree and diploma levels. With a view to have a realistic plan for diversification and proper training requirements of the students as well as teachers, the State Government have established an Industrial Liaison Board with a standing committee to tender necessary advice. Further, it is proposed to provide cent per cent staff quarters and hostel facilities to the staff and students. Teachers and instructors will be continuously trained in industry and sent for higher education. Reorganisation and strengthening of the institutions and the Directorate will be one of the important objectives of future plans.

On the basis of the abovementioned long-term prospective, the following objectives are being adopted for the Fifth Plan :—

- (i) To equip the laboratories and workshops adequately ; completion of Institutional and other buildings.
- (ii) To diversify the courses of study at degree and diploma level according to the needs of the industry.
- (iii) To increase the intake of the sanctioned admissions capacity of institutions.
- (iv) To provide industrial bias to the curriculum by starting sandwich pattern courses.

118. The amounts which were sanctioned for purchase of equipments and construction of building which could not be spent during Fourth Five-Year Plan, will be provided in Fifth Five-Year Plan and additional equipments will be provided for modernization of laboratories and workshops. Actual admissions will be gradually raised in conventional courses according to the requirements of industry and new courses will be started at degree and diploma level. A separate Polytechnic for Women will be established at Muzaffarpur. Staff and students ratio will be raised to 1 : 8 and 1 : 10 at the Degree and Diploma level institutions, respectively. Leave and Training Reserve of the order of 20 per cent of the total number of posts will be created. Superior posts will be created in adequate ratio as approved by the Government of India from time to time.

Recommendations of All-India Council for Technical Education regarding giving autonomy to selected degree and diploma level institutions and State Board of Technical Education will be implemented.

Private Technical Institutions will be given aid by the State.

119. An outlay of Rs. 4,00.50 lakhs is being proposed for technical education in the Fifth Plan.



ANNEXURE II(a)  
SCHOOL EDUCATION.

Item.	Enrolment (in lakhs).				Enrolment as percentage of the age-group.		
	1968-69 (Position).	1973-74 (Anti- cipated).	1978-79 (Likely position).	1974-79 (Target of additional enrolment for Fifth Plan).	1968-69 (Position).	1973-74 (Likely position).	1978-79 (Target).
	2	3	4	5	6	7	8
<b>1. Classes I—V—</b>							
Boys .. ..	30.10	35.56	42.32	6.76	82.8	88.1	100.0
Girls .. ..	9.94	13.00	22.00	9.00	29.0	34.2	55.5
Total .. ..	40.04	48.56	64.32	15.76	55.9	62.2	71.7
<b>2. Classes VI—VIII—</b>							
Boys .. ..	6.70	9.21	14.40	5.99	32.8	40.7	60.0
Girls .. ..	1.21	0.70	4.46	2.75	6.7	7.9	20.0
Total .. ..	7.91	10.91	18.86	7.95	19.7	24.3	40.0
<b>3. Classes IX—XI—</b>							
Boys .. ..	4.54	6.25	8.75	2.50	24.2	33.0	30.9
Girls .. ..	0.48	0.75	2.25	1.50	2.6	4.0	10.60
Total .. ..	5.02	7.00	11.00	4.00	13.4	18.6	25.6
<b>4. Enrolment in part-time—</b>							
<b>A. Middle Schools—</b>							
<b>Age-group 11—14—</b>							
Boys .. ..	Nil	Nil	..	1.04*	..	..	..
Girls .. ..	Nil	Nil	..	0.55*	..	..	..
Total .. ..	Nil	Nil	..	1.59*	..	..	..
<b>B. Secondary stage—</b>							
Boys .. ..	..	..	..	..	..	..	..
Girls .. ..	..	..	..	..	..	..	..
Total .. ..	..	..	..	..	..	..	..
<b>5. Collegiate stage—</b>							
<b>A. Enrolment ('000)</b>							
(a) Arts, Science, Com- merce and Law.	175	260	345	15	3.2	4.8	6.3
(b) Science Courses ..	55	75	90	3	1.1	1.3	1.6
(c) Enrolment in Corres- pondence Courses.	..	..	5	1	..	..	0.09

NOTE.—The population figures circulated by the Planning Commission may be utilised.  
\*Enrolment included in the total for classes VI—VIII, Item II.

## ANNEXURE II (b)

## TEACHERS

	Total number of teachers.				Number of trained teachers.			
	1968-69 (Position).	1973-74 (Position).	1978-79 (Target).	1974-75 (Additional for Fifth Plan).	1968-69 (Position).	1973-74 (Likely position).	1978-79 (Target).	1974-75 (Additional for Fifth Plan).
1	2	3	4	5	6	7	8	9
<i>(i) Primary Schools (a)</i>								
(a) Men ..	71,647	89,734	1,24,634	34,900	59,670	83,000	1,14,000	31,000
(b) Women ..	8,600	9,465	20,465	11,000	5,160	7,100	11,600	4,500
Total ..	80,247	99,199	1,45,099	45,900	64,830	90,100	1,25,600	3,500
<i>(ii) Middle Schools</i>								
(a) Men ..	36,905	44,233	64,758	20,525	29,890	38,644	52,567	13,925
(b) Women ..	5,127	6,127	12,127	6,000	3,620	5,227	7,227	2,000
Total ..	42,032	50,360	76,885	26,525	33,510	43,871	59,796	15,925
<i>(iii) Secondary Schools</i>								
(a) Men ..	23,693	25,600	27,850	2,250	12,250	25,150	27,400	2,250
(b) Women ..	2,993	3,400	3,650	250	2,450	2,650	2,900	250
Total ..	76,686	29,000	31,500	2,500	14,700	2,780	30,300	2,500
<i>(iv) Universities Stage</i>								
(a) Universities	450	450	495	45	Not required			
(b) Arts, Science	5,500	6,000	7,175	1,175	Not required.			
(c) Commerce colleges	50	50	55	5	Not required.			
(d) Evening College	..	..	..	..	..	..	..	..
(e) Correspondence Courses.	..	..	31	31	..	..	..	..

(a) The number of teachers appointed under the special employment programme during 1971-72 may be indicated separately.

## ANNEXURE II(c)

				1968-69 (Position).	1973-74 (Likely position).	1978-79 (Target)	1974-75 (Additional for the Fifth Plan).
	1			2	3	4	5
(C) Institution—							
(i) Primary Schools	..	..	..	45,643	48,738	53,652	4,914
(ii) Middle Schools	..	..	..	7,639	9,077	16,721	7,644
(iii) High/Higher Secondary	..	..	..	2,392	2,700	2,880	180
(D) Teachers Training—							
(i) Training Schools	..	..	..	86	95	95	..
(ii) Enrolment	..	..	..	16,497	16,500	16,500	..
(iii) Output	..	..	..	13,200	13,500	15,000	..
(E) Teachers Training College—							
(i) Training Colleges	..	..	..	7	7	12	5
(ii) Enrolment	..	..	..	1,090	1,090	1,590	500
(iii) Output	..	..	..	980	980	1,380	400

## CHAPTER XX.

### HEALTH AND FAMILY PLANNING.

#### Introduction

Over the last 23 years of planned development considerable effort has been made in providing basic health services to the common man. However, the achievement in this respect falls far short of the requirements. Leaving aside norms laid down by expert bodies such as the Mudaliar Committee, even on comparison with the average degree of health facilities available in the nation as a whole, the inadequacy of health facility available in the State of Bihar is indeed glaring. What is more disconcerting is that even the limited facility so available is spread unevenly as between the urban and rural areas. The total number of registered medical practitioners in the State is estimated to be 11,000. This works out to 8 per cent of the total number of registered medical practitioners in the country as a whole. The doctor population ratio in Bihar works out to 1:5000 as against the national average 1:4000. The ratio for rural areas is even worse for Bihar viz. 1:24,000 against the all-India average of 1:17,300.

2. As regards the hospital beds, the total number is expected to reach around 17,600 by the end of the Fourth Plan. In 1968-69 the total number of hospital beds in the country was reported to be 2,40,100. The number of beds in Bihar, therefore, will work out to less than 8 per cent of the total number of beds in the country at the beginning of the Fourth Plan. Out of the total beds available in the State, only 33 per cent are available in the hospitals and dispensaries in the rural areas. By the end of the Fourth Plan there will be 681 dispensaries and 63 hospitals in Bihar. As against this, in 1968-69 there were 4,314 hospitals and 10,699 dispensaries in the country as a whole. Most of the hospitals are located in the urban areas.

With the growing urban population, the facilities available in the hospitals have proved to be far short of the ever-increasing demand. The hospitals are also suffering from inadequacy of staff, buildings, equipment and drugs. There are only five Medical Colleges in the State with an annual intake of 625. The out-turn of doctors per year is currently of the order of 610. In the country as a whole, the annual intake in Medical Colleges in 1968-69 was about 11,500 as against 575 in Bihar. The availability of para-medical personnel such as nurses, auxiliary nurses and midwives, lady health visitors and pharmacists, etc., is also far below the requirement. The number of institutions training such personnels is also far too small.

3. In the Fourth Plan of the State, an outlay of Rs. 15.28 crores was visualised on the health sector. This excluded outlay of Rs. 12.80 crores on the central schemes on control of communicable diseases. The distribution of outlay of Rs. 15.28 along with the estimated expenditure is indicated in the table below :—

(Rs. in lakhs.)

Schemes.	Outlay.	Estimated expenditure.
1. Hospitals and Dispensaries .. ..	587.60	2,80.60
2. Medical education and Research .. ..	3,74.00	2,40.00
3. Training Programme .. ..	1,09.00	54.00
4. Primary Health Centres .. ..	3,19.40	1,20.00
5. Indigenous system of Medicines including Homeopath .. ..	34.00	12.00
6. Other programmes .. ..	1,04.00	21.40
Total .. ..	15,28.00	7,28.00

While there was considerable step-up in the outlay in this sector in the Fourth Plan, the estimated expenditure has fallen far short of the programmed outlay. Short falls have occurred in every programme, but they are very large in respect of hospitals and dispensaries, medical education and research and other programmes. The main reason for the shortfalls was the slow progress in construction programme. The total building construction component of the Fourth Plan was of the order of Rs. 8.45 crores whereas the estimated expenditure on this element is only of the order of Rs. 2.10 crores. The procedural delays in acquisition of land and in sanctioning constructions are responsible for this slow progress. The construction activity is centralised under the Public Works Department and the clearance of plans and estimates in Public Works, Public Health Engineering and Electricity Departments proved to be too much time-consuming.

4. Provision of health services in rural areas on reasonably adequate scale constitutes an important element of National Programme of Minimum Needs. Accordingly, in the State Fifth Plan, major portion of the outlay in the health sector is allocated to the Minimum Needs Programme providing health facilities in the rural areas. Out of the total outlay of Rs. 64.44 crores, Rs. 40.44 crores are allocated to the Minimum Needs Programme and the remaining 24.00 crores to other programmes. The distribution of the Fifth Plan outlay is indicated in the table below:—

Programme.	Proposed outlay (Rs. in lakhs).
Minimum Needs Programme .. .. .	40,44.00
Hospitals and Dispensaries .. .. .	6,55.52
Medical Education and Research .. .. .	11,52.60
Training Programmes .. .. .	1,79.32
Indigenous system of Medicines including Homeopath .. .. .	1,00.00
 Rural Incentive Scheme .. .. .	 48.71
School Health Programme .. .. .	8.79
Other Programmes .. .. .	2,55.06
Total .. .. .	64,44.00

5. While the deficiencies in buildings, equipment and medicines in rural dispensaries is being taken care of under the Minimum Needs Programme, the same in respect of subdivisional and district level Hospitals are being met to the extent possible by providing funds under "Hospitals and Dispensaries".

It is necessary to strengthen the Medical Education and Research Sector. Current inadequacies in the medical teaching and research institutes are also being met as far as possible in a phased manner. Accordingly, this sector accounts for roughly 1/6th of the total outlay.

Similarly, the facilities for training para-medical personnel are also being expanded and strengthened, so that adequate para-medical support is available to put through the large-scale rural health services programme.

Having regard to the increasingly important role to be assigned to the indigenous system of medicines, a substantial provision is being made for strengthening Ayurvedic, Unani and Homeopathic systems of medicine both in the field of education and extension of facilities of treatment by these systems.

Besides the Minimum Needs Programme, solely meant for expanding/strengthening the health services in the rural areas, a new scheme is being taken up under the heading of "Rural Incentive Scheme", which is meant for inducing private practitioners to set up practice in rural areas.

A scheme has been prepared for examination and advice to school-going children to safeguard the standard of their health. As a pilot project, the scheme has been framed to cover children in certain backward tribal areas and overcrowded slum areas in cities.

A number of Schemes have been prepared under the heading 'Other Schemes'. These include research projects and advanced treatment in the spheres of cardiology, neurology, respiratory diseases and cancer and also immunisation programme and drug control unit and maintenance of medical records for purpose of Statistics and research.

Scheme for the control of communicable diseases are centrally sponsored. The outlay for these schemes during Fourth Plan has been as follows :—

					Rs. in lakhs.
(1) National Malaria Eradication Programme	..	..	..	..	5,19.95
(2) Small-pox	..	..	..	..	3,40.00
(3) Cholera	..	..	..	..	63.30
(4) T.B.	..	..	..	..	1,92.00
(5) Filaria	..	..	..	..	58.30
(6) Leprosy	..	..	..	..	79.30
(7) Trachoma	..	..	..	..	3.13
(8) V.D.	..	..	..	..	15.00
				Total	12,70.98
					or
					12.71 crores.

It is expected that as in the Fourth Plan the Schemes will continue in the Centrally sponsored sector during the Fifth Plan for which Government of India will provide funds outside the Plan Ceiling.

6. The building components of the Fifth Plan outlay is estimated to be Rs. 2622 lakhs. In the light of the experience of the Fourth Plan, special care is being taken to evolve suitable machinery to put through the construction programme speedily. With this end in view, Rural Engineering Organisation has been suitably strengthened so as to achieve the target set before it in stipulated time.

### Minimum Needs Programme

7. The State has already covered all the 587 C.D. Blocks with one Primary Health Centre (P.H.C.) in each. The average population covered by a P.H.C. is 86,000 at the end of the Fourth Plan. Steps have recently been taken to provide more doctors in the rural areas by reorganising the pattern of rural health services. The earlier pattern was a six bedded block dispensary with a doctor, three health sub-centres functioning under a second doctor and a rural family planning centre along with a number of sub-centres under the charge of a third doctor. Thus there were three doctors in C.D. Block with different functions. The reorganised pattern has introduced a fourth doctor in the Block and each of the four doctors is responsible for the family planning, preventive and curative aspects of medical and health facilities in their own territory, their physical locations being, one at the block dispensary and one each at the health sub-centres. The reorganised pattern envisages a two-bedded dispensary at

these sub-centres and provides permanent doctors in more remote rural areas. The success of the scheme, however, depends on making good the existing deficiencies in building, staff, equipment and drug and medicines.

Out of the 587 P.H. Cs, however, 217 do not have any dispensary buildings or staff quarters and the remaining 370 P.H.Cs. require some additional constructions. Under the Minimum Needs Programme an outlay of Rs. 434 lakhs has been kept for construction of 217 P.H.Cs. including staff quarters at the rate of Rs. 2 lakhs for each. Besides for additional constructions in the remaining 370 P.H.Cs. a provision of Rs. 285 lakhs has been made.

At the norm of one sub-centre for 10,000 population, the State would require 5,072 sub-centres as per 1971 rural population of 5.072 crores. The total number of sub-centres existing both under Health and Family Planning is 1761 and as such 3,311 new sub-centres are required to be established during the Fifth Plan period. An outlay of Rs. 1159 lakhs has been kept for establishment of new sub-centres at the rate of Rs. 15,000 non-recurring and Rs. 10,000 recurring per sub-centre for two years. In the existing sub-centres also there is a backlog of construction of buildings. Out of the existing 1,761 sub-centres, 546 have their own buildings and for the remaining 1,215 sub-centres buildings will have to be constructed. An outlay of Rs. 1821 lakhs has been kept on the basis of Rs. 15,000 per sub-centre.

At present the annual provision of drugs for the P.H.Cs. and sub-centres in the State is Rs. 1,500 and Rs. 1,000 respectively. This provision has been utterly inadequate and it is necessary that this norm is raised at least to Rs. 12,000 for P.H. Cs. and Rs. 2,000 for the sub-centres. The difference in the rate of provisions of drugs will, therefore, have to be provided in the Fifth Plan. For this an outlay of Rs. 308 lakhs has been kept for the 587 P.H.Cs. and Rs. 88 lakhs for the sub-centres.

For providing better hospital facilities in rural areas it is proposed to upgrade one out of every four P.H.Cs. into 30 bedded hospitals. At this rate 147 P.H.Cs. will require to be upgraded for which a provision of Rs. 1588 lakhs has been made.

Thus under the Minimum Needs Programme of Health sector the following provision has been made :—

	<i>(Rs. in lakhs.)</i>
1. Backlog of construction of 217 P.H.C. building inclusive of staff quarters.	434
2. Backlog of construction of staff quarters of 370 P.H.Cs.	285
3. New sub-centres .. .. .	1159
4. Backlog of construction of 1,215 Sub-centres ..	182
5. Deficiency in drugs of existing 1,761 P.H.Cs ..	308
6. Deficiency in drugs of existing 1,761 Sub-centres ..	88
7. Upgradation of 147 P.H.Cs. into 30 bedded hospitals'	1588
TOTAL ..	4044

## Hospitals and Dispensaries

8. As regards teaching hospitals and other urban hospitals and dispensaries, the approach in the Fifth will be to consolidate the gains already made and to increase the number of beds wherever necessary. In most of these hospitals, the staff already sanctioned is far below the norms recommended by the Indian Medical Council. Since due to constraint of financial resources it will not be possible to equip the hospitals with the norms laid down by the Indian Medical Council, the State Government set up a Committee to look into matter and indicate the minimum standard these hospitals should have keeping in view the States difficult resource position. Provisions have accordingly been made to provide the necessary additional staff and equipment. As regards the proposals for building construction, higher priority has been given to completion of incomplete buildings and construction of new buildings have been proposed only where it is necessary. Brief description of institutionwise proposals follow. For the Rajendra Medical College Hospital, Ranchi it is proposed to create 10 posts of resident physician/surgeon, radiotherapists, etc. and 226 additional posts of nurses to bring the nurse-bed ratio to 1: 3. Provision of Rs. 5 lakhs has been made for new equipment in the existing departments and Rs. 10 lakhs for equipping the Deep X-Ray Department with Cobalt, furniture, etc. For construction of additional staff quarters, housemen's hostel, etc. a provision of Rs. 20 lakhs has been proposed. Thus the total provision proposed for this hospital in the Fifth Plan is Rs. 65.70 lakhs.

For Darbhanga Medical College Hospital a provision of Rs. 126.31 lakhs has been proposed. Of this, Rs. 85.62 lakhs is on buildings most of which, will be utilised for completion of the 400 bedded surgical ward taken up this year. It is also proposed to create 233 additional posts of nurses and 10 posts of resident physician/surgeon. Provision of Rs. 10 lakhs has been made for purchase of new equipment.

A new medical college at Bhagalpur has been started in the Fourth Plan for which a 700 bedded hospital will be required during the Fifth Plan period. The building construction programme has already been taken up, the total estimates of which come to over Rs. 6 crores. Due to paucity of funds only Rs. 331.00 lakh is being proposed in the Fifth Plan. Besides, Rs. 119 lakhs is being proposed for additional staff and equipment.

In Patna Medical College Hospital also a number of buildings including the six storied female ward, have been taken up during the Fourth Plan. For completion of these buildings as well as for taking up a number of other essential buildings a sum of Rs. 82 lakhs will be required during the Fifth Plan period. For provision of 296 additional nurses a sum of Rs. 35 lakhs will be required. For this institute a provision of Rs. 160 lakhs has been proposed, which also includes provision for additional staff and equipment.

The Fourth Five Year Plan provided for 2,256 additional beds in district hospitals but due to the delay in building construction programme very little additional beds could be sanctioned. In the Purnea Sadar Hospital 50 additional beds were sanctioned. Building construction programme for the expansion of sadar hospitals are being taken up and it will now be possible to have 1,321 additional beds in the sadar hospitals during the Fifth Plan period. For this, a provision of Rs. 238 lakhs is being proposed. The provision includes the cost on strengthening and expansion of sadar hospitals at the 15 new district headquarters. Out of the proposed provision of Rs. 238 lakhs, Rs. 99 lakhs is for building construction programme.

For the Sub-divisional Hospitals the target in the Fourth Plan was to add 1758 beds. But like the sadar hospitals this programme also could not be successfully implemented. Only 156 new beds could be added in the sub-divisional hospitals during the Fourth Plan period raising the total number of beds to 1,796 at the end of the Fourth Plan. During the Fifth Plan it is proposed to add 320 additional beds for which



a provision of Rs. 57.5 lakhs has been proposed. Of this, Rs. 24 lakhs are on building construction programme.

#### **Medical education and research.**

9. For the successful implementation of the massive programme of rural health service under the Minimum Need Programme and the other programmes of improvement and expansion of the urban hospitals, it is necessary that adequate number of technical personnel are available in time during the 5th Plan period. The medical education and training programme has been framed accordingly.

The total number of doctors under the State Health Service at present is 3326. During the Fifth Plan period additional 1,293 number of doctors will be required—mainly for the rural hospitals, the medical college hospitals and the district and Sub divisional Hospitals presently the four Government Medical Colleges at Patna Ranchi, Darbhanga and Bhagalpur and the fifth medical college at Jamshedpur are turning out 625 doctors every year. Besides, four other private medical colleges have been opened in this State. These medical colleges have got the recognition from the Universities concerned and are expected to turn-out 200 medical graduates every year during the latter part of the Fifth Plan. These degrees, however, are required to be recognised by the Indian Medical Council. It will thus be possible to have the required number of medical graduates from the Government as well as the private medical colleges during the Fifth Plan period.

Brief description of institution-wise proposals follow.

Most of the medical colleges in this State are deficit in staff and equipment on the basis of the standards laid down by the Indian Medical Council. Since constraint of financial resources would not permit us to make-up the deficiency on the basis of these standards during the Fifth Plan period, it has been proposed to bring the existing standard laid-down by the Medical colleges nearer to the standard laid-down by the Medical Council on the basis of the recommendations of the committee set-up by the State Government for this purpose. Accordingly it is proposed to have a post of professor, 4 posts of lecturers, 24 posts of tutors, 5 posts of demonstrators, 1 post of cardiothoracic surgeon and 1 post of Biochemist in the Darbhanga Medical College. It is also proposed to provide Rs. 7.5 lakhs for new equipments, teaching aids and library books in the Fifth Plan. To meet the additional requirement of Hostels, the Staff quarters, etc., a provision of Rs. 22.84 lakhs has been proposed. Thus for the Darbhanga Medical College a provision of Rs. 40 lakhs has been proposed in the Fifth Plan.

Similarly, for the Ranchi Medical College, a provision of Rs. 40 lakhs has been proposed, which includes Rs. 22.70 lakhs on additional Hostel accommodation and staff quarters and Rs. 7.5 lakhs on new equipment, teaching aids and library books. Besides, 2 posts of professors, 2 posts of lecturers, 21 posts of tutors, 6 posts of demonstrators and 1 post of Bio-physist are proposed to be created.

The Bhagalpur Medical College was started in 1971 with staff in Anatomy, Physiology and Biochemistry Departments. In the current year some posts in pharmacology, Forensic Medicines, preventive and Social Medicines Departments are being created. During the Fifth Plan period the clinical departments will have to be started with adequate staff. For the Bhagalpur Medical College a provision of Rs. 150 lakhs is being proposed. Of this Rs. 68.75 lakhs are on staff and equipment and Rs. 80 lakhs on building construction programme.

For the Patna Medical College a provision of Rs. 84.74 lakhs is being proposed, which includes Rs. 75 lakhs on building construction programme. Some of the Depart-

ments will have to be provided with adequate building accommodation and more hostel facilities will have to be provided. Among the new posts to be created during the Fifth Plan period in this college are 2 posts of Lecturers, 6 posts of demonstrators, 14 posts of tutors, 1 post of Bio-physics and 1 post of Chemist.

There is only one dental college in this State at Patna with an intake capacity of 15 every year. It is not proposed to add to the number of dental college or to increase the admission capacity in the Patna Dental College. Hostel accommodation however will have to be provided for which Rs. 6 lakhs has been proposed. Another provision of Rs. 4.85 lakhs has been proposed for making up the deficiency in staff and equipment.

### **Training of Para-Medical staff**

10. Even though the medical education programme will more or less be satisfactory for providing the required number of doctors during the Fifth Plan period, there, however, will remain some gap between the requirement of Para-medical staff, particularly nurses and their output during the Fifth Plan.

At present there are only 920 nurses available in the State Government Service. The total requirement of nurses, however, during the Fifth Plan will be about 5790. The requirement has been worked out on the basis of provisions of additional nurses in the medical college hospitals at the norm of 1 nurse for 3 patients, in the district and subdivisional hospitals 1 nurse for 5 patients and 7 nurses each for the upgraded 30 bedded rural hospitals.

Presently from the four nursing schools in this State, 240 nurses qualify every year. These schools will thus provide 1200 nurses during the Fifth Plan period. It is, therefore, proposed to open 6 new nursing schools with an intake capacity of 300. These new schools will be opened at Dhanbad, Bettiah, Muzaffarpur, Bhagalpur, Gaya and Saharsa. Thus the intake capacity is proposed to be raised to 540 during the Fifth Plan. However for meeting the gap between requirement and output Bihari girls will have to be sent to institutions on other states where surplus training capacity will be available.

At the moment 17 A.N.M.S. schools are functioning in this State producing 970 A.N.M.S. every year. For meeting the additional requirement of auxiliary nurses and midwives steps have already been taken to open 14 A.N.M. schools with an annual intake of 690. These measures will provide sufficient number of A.N.M.s. during the Fifth Plan period.

The total number of sanctioned posts of Lady Health Visitors is 1047 against which 465 L.H.Vs. are working. For making up the existing deficiencies, as well as for meeting the additional requirements during the Fifth Plan period it is proposed to raise the intake capacity in L.H.V. Schools from 60 to 300.

The total requirement of pharmacists during the Fifth Plan will be 3000. At the moment 675 Pharmacists and Chemists are working in the various State Hospitals and district dispensaries. For meeting the additional requirements of pharmacists, 3 new Pharmacy Schools with an intake capacity of 300 every are being proposed. At the moment there is only one Pharmacy School located at Patna producing 100 Pharmacists every year.

### **Indigenous Systems of Medicines**

11. At present there are 18 Ayurvedic and 13 Unani State owned dispensaries. These dispensaries have proved to be popular and serve a good number of poor rural population. The number of these dispensaries, however, are inadequate and as such their services are not available to the vast majority of our rural population. It is, therefore, proposed to open 80 Ayurvedic, 20 Unani and 50 Homeopathic dispensaries during the Fifth Plan period for which a provision of Rs. 48 lakhs has been proposed. The Government Ayurvedic and Tibbi Colleges have been recognised by the University to impart Degrees to the students who qualify in these systems of medicines. It will therefore be necessary to raise the standard of these colleges. The

Homeopathic College at Patna will also have to be provided with the necessary building and staff. Thus provision of Rs. 52 lakhs has been proposed for improvement and expansion of the Ayurvedic College, Tibbi College and Homeopathic College in the Fifth Plan.

### Rural Incentive Scheme

12. Due to comparatively difficult living conditions in rural areas, qualified M.B.,B.S. doctors do not like to settle in rural area for private practice adding to the handicaps of the people living in villages. The private practitioners could, however, be made to settle in rural areas by providing them incentives. The commercial banks will be willing to advance loans for construction of residence-cum-Clinic to individual doctors desirous of settling in rural area. But this loan will not be sufficient inducement for them to settle in rural areas because it will be difficult for them to earn enough in the beginning to repay the loan and interest as well as for their own living. It is, therefore, proposed to give them monthly honorarium for a few years in the beginning. A provision of Rs. 49.20 lakhs has been proposed in the Fifth Plan for this which will help in settling 120 doctors in rural areas.

### School Health Programme

13. The school going children need special care in matters of medical treatment and advice. But unfortunately they have so far remained neglected. It is proposed to take up the programme on a pilot basis to cover children in certain backward tribal areas and over-crowded slums in cities during the Fifth Plan. A provision of Rs. 8.30 lakhs has been proposed for this.

### Other Programmes

14. A provision of Rs. 255.06 lakhs has been proposed for a number of schemes under the heading "other programmes". It is proposed to start preservice training course for medical officers for which a provision of Rs. 7.5 lakhs has been made.

It is proposed to set up regional radiotherapy centres at Patna, Dhanbad, Darbhanga, Ranchi, Bhagalpur and Saharsa and each of the centres will be provided with modern deep X-Ray machines. A provision of Rs. 25 lakhs has been proposed for this.

A provision of Rs. 127 lakhs is being proposed for making up the deficiencies in equipment, staff, drugs and medicines of the district and sub-divisional hospitals and public health laboratories.

## FAMILY PLANNING

In the Fourth Five-Year Plan the objective laid down for the Family Planning Programme was to bring down the rate of birth from 39 per thousand of population in 1968-69 to 32 per thousand by 1973-74 and to 25 per thousand of population in another 5 to 7 years. With the above objective in view the family planning programme was taken up in this State. In the first four years of the Fourth Plan 5.77 lakh persons were sterilised and 1.68 lakhs I.U.C.D. done. The expenditure during this period has been Rs. 11.08 crores including Rs. 1.77 crores over building construction programme.

Family planning is a centrally sponsored programme and the entire cost on this programme is met by Government of India. The programme is finalised by the Ministry of Health and Family Planning in consultation with the State Government and financial allocation is made accordingly to the State Government. The Objective in the Fifth Five-Year Plan will be to reduce the birth rate to 25 per thousand of population. The broad strategy will be to operate the programme within the integrated framework of medical, family planning and nutritional service. There has to be a broader and wider participation of voluntary organisations in the programme. Special attention will have to be given to placement of necessary *infra-structure* like, staff, building, vehicles and equipment.

## APPENDIX I

## Fifth Five year plan 1974-79 Outlay—Health Programmes States/Union Territories.

(Rs. in Crores).

52 Planning—38

Serial no.	Programme.	4th Five-Year Plan.			5th Five-Year Plan.			Phasing Total Outlay.				
		Approved Outlay.	Estimated expenditure.	Short falls.	Total.	Capital.	Foreign Exchange.	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Minimum Needs Programmes. @	3.194	1.120	2.074	40.44	15.96	..	4.06	6.59	8.63	9.62	11.54
2	Control of Communicable diseases*	12.81	12.81	..	(Centrally Sponsored Scheme.			Hence no provision in States Plan).				
3	Hospitals and Dispensaries.	5.876	2.806	3.07	6.5552	1.5750	0.12	0.65	1.03	1.045	1.780	1.6902
4	Medical Education and Research.	3.74	2.40	1.34	11.5260	7.2516	..	1.16	1.74	2.32	2.90	3.406
5	Training Programmes ..	1.07	0.54	0.53	1.7932	0.4300	Nil	0.1793	0.2689	0.3585	0.4481	0.5384
6	ISM including Homeopathy.	0.34	0.12	0.22	1.800	0.27	..	0.1000	0.1500	0.2000	0.2500	0.3000
7	Other Programmes ..	1.060	0.294	0.766	3.1256	0.5315	0.08	0.3125	0.4687	0.6249	0.7811	0.9384
TOTAL ..		15.28	7.28	8.00	64.44	24.9181	0.20	6.4618	10.2476	13.5384	15.7792	18.4130

@ For 4th Plan, this relates to Primary Health Centres and Sub-centres.

\* Not included in the total.

NOTE—Except item 2.

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APPENDIX II.

Fifth Five-Year Plan Financial Outlays Health Programmes.

(Rs. in lakhs.)

Serial no.	Programmes.	4th Five-Year Plan.			5th Five-Year Plan.			Phasing Total Outlays.				
		Approved Outlay.	Estimated expenditure.	Short-falls.	Total.	Capital.	Foreign Exchange.	1974-75.	1975-76.	1976-77.	1977-78	1978-79.
1	2	3	4	5	6	7	8	9	10	11	12	
<b>1 Minimum Needs Programmes—</b>												
	PHCs .. ..	210.40	64.00	146.40	1027	719	Nil	103	171	223	245	285
	Sub-Centres ..	109.00	48.00	61.00	1429	1000	..	143	218	290	347	431
	Upgradation of PHCs ..	Nil	Nil	Nil	1588	1488	..	160	270	350	370	438
<b>2 Control of Communicable Diseases.</b>												
	(a) NMP	519.95	519.95									
	(b) Urban Malaria ..											
	(c) Small Pox ..	340.95	340.00									
	(d) Cholera ..	63.30	63.30									
	(e) T.B. ..	192.00	172.00									
	(f) Filaria ..	58.30	58.50									
	(g) Leprosy ..	79.30	79.30									
	(h) Trachoma ..	3.13	3.13									
	(i) V.D. ..	0.15	0.15									
	(j) Others ..											
<b>3 Hospitals and Dispensaries—</b>												
	(a) Hospitals (District Sub-divisions, Taluka etc.).	435.10	210.45	224.65	635.52	157.50	12.00	63.00	85.00	116.50	148.00	133.02

Dispensaries (Rural and Urban).	152.50	70.15	82.35	120.00	Nil	Nil	12.00	18.00	24.00	30.00	36.00
<b>4 Medical Education</b>											
Medical Colleges (Allopathic) Post-Graduate Departments	374.00	240.00	134.00	1152.60	725.16	Nil	116.00	174.00	232.00	290.00	340.60
<b>5 Training Programmes—</b>											
Nurses Training ANMS	62.00	7.00	25.00	78.62	28.00	Nil	2.80	4.20	5.60	7.00	8.40
Medical Auxiliary, Others	45.00	15.00	30.00	85.70	15.00	Nil	1.50	2.20	2.90	3.60	4.80
<b>6 ISM and Homeopathy—</b>											
Medical Colleges Post Graduate Departments.	34.00	12.00	22.00	100.00	27.00	Nil	10.00	15.00	20.00	25.00	30.00
<b>7 Other Programmes ..</b>	20.00	Nil	20.00	30.00	Nil	Nil	3.00	4.50	6.00	7.50	9.00
(i) Drugs and Food Laboratories.											
(ii) Psychiatric Clinics	Nil										
(iii) Rehabilitation Clinics	Nil										
(iv) Cancer drug and treatment Centres.	12.00	12.00	Nil	25.00	5.15	Nil	2.50	3.75	5.00	6.25	7.50
<b>8 (v) Immunisation ..</b>	..	..	..	50.00	Nil	Nil	5.00	7.50	10.00	12.50	15.00
(vi) School Health Programme.	8.00	Nil	8.00	8.79	Nil	Nil	88	1.32	1.76	2.20	2.63
(vii) Chest investigation unit in Itki.	Nil	Nil	Nil	20.00	3.00	Nil	5.00	5.00	5.00	5.00	0.00
(viii) Others ..	66.00	28.20	37.80	178.79	Nil	Nil	14.80	24.75	34.70	44.45	60.07

APPENDIX III.

HEALTH.

Fifth Five-Year Plan 1974—79 Physical Targets Health Programmes.

Serial no.	Item.	Fourth Plan Targets.	1973-74 anticipated position.	Targets for Fifth Plan (Addition)	Phasing/Additions.					
					1974-75	1975-76.	1976-77.	1977-78.	1978-79	1978-79 Anticipated position.
1	2	3	4	5	6	7	8	9	10	11
<b>1 Minimum Needs Programme :</b>										
	(i) No. of P. H. Cs. .. ..	587	587	Nil	..	..	..	..	..	587
	(ii) No. of Sub-centres .. ..	1,761	1,761	3,311	662	662	662	662	663	5,072
	(iii) No. of upgraded P. H. Cs (Rural Hospitals).	Nil	Nil	147	29	29	29	29	31	147
<b>2 Control of Communicable Diseases :</b>										
<b>(i) Malaria—</b>										
	(a) No. of Units in Attack Phase ..	3.02	3.02	..	..	..	..	..	..	..
	(b) No. of Units in Consolidation phase	10.90	10.90	..	..	..	..	..	..	..
	(c) No. of Units in Maintenance Phase	28.08	28.08	Instructions awaited from Centre.						
	(d) No. of towns under Urban Malaria Programmes.	Nil	Nil	..	..	..	..	..	..	..
<b>(ii) T. B.—</b>										
	(a) No. of T. B. Clinics .. ..	17	..	..	..	..	..	..	..	..
	(b) No. of Demonstrations and Training Centres.	5	..	..	..	..	..	..	..	..
	(c) No. of Isolation beds .. ..	94	..	..	..	..	..	..	..	..

<b>(iii) Small-pox—</b>											
(a) Primary Vaccination (in millions) .. ..	10	..	..	..	..	..	..	..	..	..	..
	Millions.										
(b) Revaccination (in millions) .. ..	24	1	..	..	..	..	..	..	..	..	..
	Millions.										
<b>(iv) Leprosy—</b>											
(a) Control Units .. ..	8	Central-sponsored Scheme, instruction awaited.									
(b) SET Centres .. ..	15	8	8	..	..	..	..	..	..	..	..
<b>(v) Filaria—</b>											
(a) Control Units .. ..	15	15	..	..	..	..	..	..	..	..	..
(b) Rural Research-cum-training centres	17	17	..	..	..	..	..	..	..	..	..
<b>(vi) Trachoma—</b>											
Population coverage (in millions) ..	4	4	..	..	..	..	..	..	..	..	..
<b>(vii) Cholera—</b>											
No. of Control Units .. ..	8	8	..	..	..	..	..	..	..	..	..
<b>(viii) V. D.—</b>											
No. of V. C. Clinics .. ..	7	7	..	..	..	..	..	..	..	..	..
<b>3 Hospitals and Dispensaries (Allopathic only) :</b>											
<b>(i) Hospitals—</b>											
(a) District Hospitals .. ..	17	17	15	3	3	3	3	3	3	3	32
(b) Sub-division/Taluka Hospitals ..	43	43	8	8	2	2	2	2	2	Nil	51
<b>(ii) Dispensaries—</b>											
(a) Urban .. ..	18	18	Nil	..	..	..	..	..	..	..	18
(b) Rural .. ..	610	610	120	25	25	25	25	25	25	20	730
<b>(iii) Hospital Beds—</b>											
(a) Urban .. ..	14,864	11,590	1,398	279	279	279	279	279	279	281	12,988
(b) Rural .. ..	3,603	3,603	4,410	882	882	882	882	882	882	882	8,013

\* These general hospitals beds should not include special beds, such as T. B. beds, Leprosy beds etc., and those beds established in the Private Voluntary institutions which may be shown separately.



APPENDIX III.

HEALTH.

Fifth Five-Year Plan 1974—79 Physical Targets Health Programmes.

Serial no.	Item.	Fourth Plan Targets.	1973-74 anti-cipated position.	Targets for Fifth Plan (Addition)	Phasing/Additions.					
					1974-75	1975-76.	1976-77.	1977-78.	1978-79	1978-79 Antici-pated. position.
1	2	3	4	5	6	7	8	9	10	11
<b>4</b>	<b>Medical Education :</b>									
	(i) No. of Medical Colleges .. ..	5	5	5	..	..	..	..	..	11
	(ii) Annual Admissions to Medical Colleges ..	610	625	675	..	..	..	..	..	675
	(iii) No. of Post-graduate Departments ..	20	20	Nil	..	..	..	..	..	20
	(iv) No. of Annual Admissions to Post-graduate to Departments.	200	200	..	..	..	..	..	..	200
	(v) No. of Dental Colleges .. ..	1	1	..	..	..	..	..	..	1
	(vi) No. of Annual Admission to Dental Colleges.	15	15	..	..	..	..	..	..	15
<b>5</b>	<b>Training Programmes :</b>									
	(a) Medical Auxiliaries—									
	(i) No. of institutions .. ..	..	..	..	..	..	..	..	..	..
	(ii) Annual Admissions .. ..	..	..	..	..	..	..	..	..	..
	(b) Nurses—									
	(i) No. of Institutions .. ..	4	4	6	6	..	..	..	..	10
	(ii) Annual Admissions .. ..	240	240	300	..	..	..	..	..	540
	(c) ANMS—									
	(i) No. of Institutions .. ..	17	17	14	14	..	..	..	..	31

(ii) Annual Admissions	..	..	970	970	690	690	..	..	..	..	1,660
<b>(d) Health—</b>											
(i) No. of Institutions Inspectors	..	..	..	..	..	..	..	..	..	..	..
(ii) Annual Admissions	..	..	Nil	Nil	Nil	Nil	..	..	..	..	..
<b>(vi) Manpower—</b>											
(a) Doctors	..	..	11,000	11,000	3,700	600	625	825	825	825	14,700
(b) Dentists	..	..	31	31	75	15	15	15	15	15	106
(c) Medical Auxiliaries	..	..	..	..	..	..	..	..	..	..	..
(d) Nurses	..	..	920	920	1,200	1,200	240	240	240	240	2,120
(e) A. N. Ms.	..	..	970	970	690	138	138	138	138	138	1,660
(f) Health Inspectors	..	..	..	..	..	..	..	..	..	..	..
<b>6 I. S. M. including Homeopathy :</b>											
(i) Colleges/Institute	..	..	2	2	1	..	..	1	..	..	3
(ii) Hospitals/Dispensaries	..	..	42	42	150	30	30	30	30	30	192
<b>7 Other Programmes :</b>											
(i) No. of Drugs and Food Analytical Lab.	..	..	..	..	..	..	..	..	..	..	..
(ii) No. of Psychiatric Clinics	..	..	3	3	14	3	3	3	3	2	17
(iii) No. of Rehabilitation Centres	..	..	..	..	..	..	..	..	..	..	..
(iv) No. of children covered under School Health Programmes.	..	..	..	..	..	..	..	..	..	..	..

## CHAPTER XXI

### NUTRITION

Under a Centrally Sponsored Scheme, feeding programme is being executed in a limited way in the Fourth Five-Year Plan. The programme is being operated in certain backward pockets and slum areas in this State. The beneficiaries are the nursing mothers, pregnant women and small children. About 2.51 lakh beneficiaries were covered under this programme by the end of 1972-73.

2. The scheme is included in the Minimum Needs Programme in the Fifth Five-Year Plan. An outlay of Rs. 21.64 crores is being provided for this programme with which it will be possible to feed 7.21 lakh beneficiaries every year during the Fifth Plan period. The cost has been calculated at the rate of Rs. 60 per annum per beneficiary on the basis of 300 feeding days in a year. The scheme will be taken up in backward areas with preponderance of Scheduled Tribes and Scheduled Castes.

3. Besides the provision of Rs. 21.64 crores mentioned above, another provision of Rs. 6 crores has been made for the school feeding programme. Infant class is being added to primary schools for school readiness habits of children of the age of five. This will facilitate the automatic admission of a large number of children in Grade I, which will ultimately pave the way for the implementation of the universal free and compulsory education programme. It is proposed to feed 3 lakh infant class children under the Minimum Needs Programme every year at the rate of Rs. 40 per child per year.

4. The proposals under the education sector include scheme of mid-day meals. The twin objectives of the mid-day meals programme are providing incentive for increased enrolment and improvement of health standard of the school going children. Besides, under the applied nutrition programme, executed by the Community Development Department, nutrition, education and extension schemes have been included.

5. The provision of Rs. 27.64 crores (Rs. 21.64 crores *plus* Rs. 6 crores per school feeding) mentioned above is for the food-stuff only. Provision, therefore, will have to be made for administration and transport components for sustaining the programme. The requirement on this comes to about Rs. 6.61 crores but due to resource constraints, a provision of Rs. 2 crores only is being proposed.

## CHAPTER XXII

### WATER SUPPLY AND SANITATION.

Provision of safe and wholesome water in adequate quantity and at a reasonable distance is a basic necessity for the healthy living of the community. The urgency for water supply and sanitation measures assumes special importance in a tropical country like India, which is subject to eriodic waves of water and filth-borne epidemics.

2. In economic terms, development depends *inter alia* on the availability of resources and man-power. Water ranks high among resources, in particular, it is basic resource for industrial activities. But the provision of safe water has an even greater significance, since, as a result of concomitant reduction in the incidence of water-borne diseases, fewer man-hours are lost.

Likewise, the provision of proper sewerage and drainage systems in town, is a must for healthy living. They save the community annual recurring expenditure on anti-mosquito, anti-filarial programmes and conservancy transport and disposal. They confer freedom from the human and social problem of maintaining a scavenging service, reduce mortality and morbidity rates, increase productivity and raise the economic structure in general.

3. Little attention was paid to water supply facilities in Pre-Independence days. Prior to the introduction of the Five-Year Plans only 8 towns of the State (Patna, Jamshedpur, Arrah, Gaya, Monghyr, Bhagalpur, Muzaffarpur and Jharia-Dhanbad) had piped water supplies and that too confined to certain areas.

During the First Five-Year Plan actually after the introduction of National Water Supply and Sanitation Programme in the year 1954, Water-Works in four of the above towns (Patna, Bhagalpur, Muzaffarpur and Gaya) were improved. In addition piped water supply schemes were started in 18 new towns covering a population of 6.5 lakhs . A sum of Rs. 279.82 lakhs was allotted out of which only Rs. 185.55 lakhs could be spent by the end of the First Plan.

While formulating the Second Five-Year Plan, it was decided to provide piped water supply to all towns with population above 20,000. However, only Rs. 305.61 lakhs were allotted. With this meagre amount only 8 new towns could be taken up, after completing spill-over schemes of the First Plan. During the period 1956—61, two Industrial Water Supply Schemes *viz.*, Hatia and Adityapur were taken up. The total amount spent during the Second Plan was Rs. 397.03 lakhs. This increase was due to the speedy execution of the Hatia Water Supply Project, the expenditure of which has also been included in this figure.

During the Third Five-Year Plan, it was proposed to provide piped water supply to all towns having a population of 15,000 and above. But again paucity of funds stood in the way and only 8 new towns could be taken up. In all Rs. 124.00 lakhs were allotted and Rs. 224.00 lakhs spent by the end of the Third Plan. This included the cost involved in completing the Spill-over schemes of the previous Plans.

No new schemes were taken up during the period 1965—1969. However, Emergency Water Supply Schemes were executed in some of the scarcity towns of the State, during the drought of 1966-67 under "Famine Relief". 16 new towns were provided with skeleton water supply services during this period.

4. The Fourth Five-Year Plan provided for Rs. 1,750 lakhs for water supply and sanitation with the following break-up:—

		(Rs. in lakhs.)
(1) Urban Water Supply	..	9,89.00
(2) Sewerage and drainage	..	3,95.00
(3) Rural Water Supply	..	3,66.00
Total	Rs.	17,50.00

Of the provision of Rs. 989 lakhs for Urban Water Supply Rs. 510 lakhs is for the Getalsud Water Supply Scheme which will provide drinking water to Ranchi and its vicinity. The balance amount of Rs. 479 lakhs is for water supply in other urban areas. With this provision piped water supply has been envisaged in 38 new towns besides extending and re-organising existing facilities in 19 towns and completing Five spill-over schemes.

5. The total urban population of Bihar according to 1971 Census is 56.54 lakhs, an increase of 44.45 per cent over the 1961 figures. In 1961 there were a total of 153 towns, out of which 68 were provided with piped water supply facilities—60 by the State Government and 8 by other agencies. These towns together accounted for a population of 23.17 lakhs out of the total urban population of 39.14 lakhs, *i. e.*, 72 per cent.

The total number of towns have risen to 201 according to 1971 Census. By the end of the third Five-Year Plan 82 towns were provided with piped water supply facilities, 65 by the State Government and 17 by other agencies. The towns together for a population of 38.67 lakhs out of a total population of 56.54 lakhs. During the Fourth Plan period another 32 towns will have been provided with piped water supply.

The status of piped water supply by the end of the Fourth Plan will be as follows:—

Total no. of towns (1971).	Nos. having W/s. up to Third Plan.	Nos. being provided with W/s. in the Fourth Plan.	Balance of towns requiring piped W/s.	Remarks.
201	82	32	*87	*(i) Municipalities or N.A. Cs.—32, (ii) Towns with population above 10,000—32, (iii) Towns with population below 10,000—23-87.

Thus 114 towns will have been served by piped water supply by the end of the Fourth Plan period. It will be observed that 114 towns with a total population of

44.60 lakhs (1971) are expected to be provided with piped water supply, *i. e.*, 79 per cent of the total urban population.

6. It will appear that piped water supply has not been able to keep pace with urbanisation trends. It is, therefore, essential to bridge the gap between the demand and supply of protected water, so that it is available in adequate quantity to all sections of the community.

7. In the Fifth Five-Year Plan, the main thrust will be towards providing drinking water supply in rural areas. An outlay of Rs. 43.28 crores is being proposed for water supply and sanitation in the Fifth Plan with the following break up:—

		<i>(Rs. in lakhs.)</i>
(1) Urban water supply	..	11,20.00
(2) Sewerage drainage	..	3,08.00
(3) Rural water supply	..	29,00.00
Total	..	43,28.00

8. The following types of schemes are proposed to be taken up under urban water supply programme:—

		<i>(Rs. in lakhs.)</i>
(i) Revision of sanctioned estimates	.. ..	84,00
(ii) Re-organisation/improvement/extension of existing water supply schemes.		2,45.00
(iii) Spill-over schemes	.. ..	2,86.00
(iv) New Schemes	.. ..	2,80.00
(v) Subernrekha water supply (Getalsud) Project	.. ..	2,25.00
Total		11,20.00

9. The details of the urban water supply schemes are given below:—

Due to increasing prices of materials and labour during the time-lag between preparation of estimates and execution of schemes, extra expenditure is anticipated over the estimated amounts, which will necessitate sanction of revised estimates to clear liabilities and to meet the expenditure on the basis of works done. For this a provision of Rs. 84 lakhs has been proposed.

Due to rapid urbanisation trends in the State in the past decade 44.45 per cent and in some cases growth of industrial activities around towns, unexpected rise in population is anticipated and consequently increased demand of water supply. As such it is imperative that a majority of existing schemes are re-organised, improved or extended.

The total amount required for these works is estimated to be Rs. 2,250.00 lakhs. However, due to limitations of resources it has been proposed to confine the works to re-organisation/improvement/extension of existing water supplies in 29 towns for which a provision of Rs. 245.00 lakhs has been proposed in the Fifth Plan.

Although efforts are being made to expeditiously execute the Scheme envisaged in the Fourth Plan, nevertheless shortage of materials, land acquisition problems, etc. are holding progress of works and these may not be completed by March, 1974. Moreover, the Fourth Plan provision is less than the estimated cost of schemes in most cases. The amount required under this head will be about 286.00 lakhs for which provision is being made in the Fifth Plan.

As already stated there will be 87 towns still left to be provided with piped water supply after the Fourth Five-Year Plan.

Details are as follows:—

(i) Towns with Municipalities and N. A. Cs. ..	..	..	32
(ii) Towns with population above 10,000 ..	..	..	32
(iii) Towns with population below 10,000 ..	..	..	23
			87
		Total ..	87

The total cost of providing piped water supply to all those towns is Rs. 935.00 lakhs. Due to paucity of funds it is proposed to take up schemes in 28 new towns for which a provision of Rs. 200.00 lakhs has been made in the Fifth Plan.

Pursuant to the re-organisation of Districts and Subdivisions of the State, it has been found necessary to make a provision of Rs. 80.00 lakhs for providing piped water facilities for newly created Subdivisional Headquarters which are expected to develop into full-fledged towns.

The Subarnrekha Water Supply (Getalsud Project) Scheme is a multi-purpose project located in Tribal populated area envisaging construction of a dam at Getalsud on Swaranrekha river and utilising the reservoir for water supply to the Ranchi town and its neighbouring areas and generation of hydro-electricity. The water supply portion of the project envisages the drawal, purification and supply of 37.50 MGD. The estimated cost of the water supply portion is Rs. 6,26.00 lakhs and dam portion is Rs. 8,17 lakh, i.e., a total scheme is of Rs. 14,43 lakhs. Water Supply portion is executed by the P.H.E.D. and Dam portion by Irrigation Department. Out of the total cost of the scheme, a sum of Rs. 6,85 lakh was allotted during the Third Five-Year Plan. There is a total provision of Rs. 5,10 lakhs during Fourth Plan out of which a sum of Rs. 453.78 is expected to be utilised by the end of the Fourth Plan.

Thus a sum of Rs. 304.22 lakh is required to be provided during Fifth Five-Year Plan under this scheme. But due to constraints of resources Rs. 2,25 lakhs only is being provided in the Fifth Plan.

10. Water Supply and Sanitation are twin facilities and normally should be taken up side by side. Unfortunately the conventional norms could not so far be followed.

Prior to Independence, there were only two cities—Patna and Jamshedpur—having limited sewerage systems. Even now after 25 years of Independence, only these two

towns have these facilities—Patna partially. No headway has been made in this sphere and the achievements may be termed as negligible. In the sphere of drainage, the achievement is not better. Apart from Patna, where drainage facilities are confined to certain areas only, Muzaffarpur will be having a partial drainage system, covering main roads only by the end of the Fourth Plan.

In the past three plan periods Rs. 97.00 lakhs was spent in Storm Drainage of Central Zone of Patna. Similarly the Soil Sewerage Schemes, amounting to Rs. 1,24.00 lakhs, were sanctioned for Patna only. Out of this Rs. 73.00 lakhs were spent up to the end of the Third Plan and the balance of Rs. 5,10.00 lakhs are provided in the Fourth Plan.

The Fourth Plan envisages starting of sewerage schemes in at least three new towns, viz., Ranchi, Gaya and Bhagalpur. As the execution of sewerage schemes takes time, completion of those schemes will spill-over to the Fifth Plan.

11. The work to be done is so vast that the only way of tackling it would be on the basis of priorities. In deciding priorities for provision of sewerage facilities population should be taken as the basis, since health hazards are greater in places of heavy concentrations of population.

There are 10 towns in the State according to the 1971 Census having populations of over 1 lakh, viz., Patna, Jamshedpur, Bokaro Steel City, Ranchi, Gaya, Bhagalpur, Muzaffarpur, Darbhanga, Monghyr and Biharsharif. By the end of the Fourth Plans substantial work will have been done in the first three plans.

In deciding priorities, regarding drainage, towns affected during rains have been taken as the basis of selection, since water-logging apart from being a nuisance increases health hazards. It has not been possible to assess the extent of the entire problem due to lack of a proper organisation for investigation and planning. However, on the basis of investigation of a limited number of towns, it may be said that with the expectation of a few towns, South Bihar may not be considered much of a problem. Compared to this most towns of North Bihar have chronic drainage problems, as water stagnates during the rains due to flat terrain. It is, therefore, necessary to provide drainage systems to selected towns, besides extending facilities in Patna and Muzaffarpur. The requirement of funds in the Fifth Plan for sewerage and drainage schemes is indicated below:—

					( Rs. in lakhs.)
(i) Spill-over Scheme .. .. .	..	..	..	..	13,66.00
(i) Extension and New Schemes .. .. .	..	..	..	..	17,30.00
				Total ..	<u>30,96.00</u>

But due to paucity of funds it is proposed to make a provision of Rs. 3,08 lakhs for sewerage and drainage in the Fifth Plan.

#### Rural Water-supply—

12. An outlay of Rs. 366 lakhs was provided for rural water-supply in the Fourth Plan. Of this Rs. 291 lakhs was meant for well construction programme and Rs. 75 lakhs for piped water-supply scheme in rural areas. By the end of December, 1972, 63,421 wells and tube-wells were sunk and another 3,018 wells and tube-wells are expected to be sunk by the end of 1973-74. A total sum of Rs. 404.48 lakhs is likely to be spent in the Fourth Plan period.



At the end of the Fourth Plan period the following categories of villages will require to be provided with drinking water facilities:—

	Number of villages.
(i) No source villages .. .. .	6,512
(ii) Cholera endemic villages .. .. .	841
(iii) Villages carrying high contents of iron and low contents of iodine	20,000
(iv) Harijan hamlets requiring separate water-supply .. .. .	3,415
(v) Villages having inadequate water-supply .. .. .	214

13. The total cost on providing all these villages with water-supply facilities comes to Rs. 61.40 crores. Due to resource limitations, a provision of Rs. 29 crores only is being made for rural water-supply in the Fifth Plan under the minimum needs programme. Of this, Rs. 17.81 crores is provided for piped water-supply and Rs. 11.19 crores for wells, tube-wells and hand-pumps.

14. All the 6,512 no source villages will be provided with drinking water facilities. Of these 6,252 number of villages will be provided with wells or tube-wells at a total cost of Rs. 5.64 crores. The balance number of 260 no source villages will be provided with piped water-supply at a total cost of Rs. 2.56 crores.

15. Of the 841 cholera endemic villages, 232 will be provided with wells or tube-wells at a total cost of Rs. 1.30 crores, 209 villages will be provided with piped water-supply at a total cost of Rs. 7 crores and the remaining 400 villages will be provided with hand-pumps at a total cost of Rs. 45 lakhs.

16. There are 20,000 villages where the available water has high iron and low iodine contents. Of these, 19,515 villages are proposed to be provided with wells or tube-wells at a total cost of Rs. 3.80 crores. For the remaining 485 villages, piped water-supply will require to be provided. The total cost on provision of piped water-supply to these 485 villages will come to Rs. 30 crores. Due to paucity of funds Rs. 8.25 crores only are being provided for covering as many villages as possible with piped water-supply.

## ANNEXURE II.

## DRAFT FIFTH FIVE-YEAR PLAN.

## STATEMENT III.

## Programmewise Outlay and Expenditure.

(Rs. in lakhs)

Sl. no.	Programme.	Fourth Plan.		Likely expenditure, 1973-74.	Likely expenditure, during Fourth Plan.	Fifth Plan.	
		Approved Outlay.	Approved Outlay for 1973-74.			Total Outlay.	Annual Plan 1974-75 Outlay.
1	2	3	4	5	6	7	8
<b>VII. Water-supply and Sanitation.—</b>							
1 <i>Urban—</i>							
	(a) Water-supply	9,89.00	1,70.00	1,70.00	7,15.00	11,20.00	2,00.00
	(b) Sewerage and Drainage.	3,95.00	50.00	50.00	1,96.36	3,08.00	60.00
2 <i>Rural/Piped—</i>							
	(a) Water-supply	75.00	20.00	20.00	77.00	17,81.00	3,00.00
	(b) Wells and Hand-pumps.	2,91.00	1,30.00	1,30.00	2,91.00	11,19.00	2,35.00
Total—1 to 2 ..		17,50.00	3,70.00	3,70.00	12,79.36	43,28.00	7,95.00

## ANNEXURE II.

## DRAFT FIFTH FIVE-YEAR PLAN.

## STATEMENT IV.

## Physical Programme—Targets and Achievements.

State—Bihar.

Item.	Unit.	1968-69 level.	Fourth Plan.		Level expected during 1973-74.	Fifth Plan Targets.	
			Target.	Likely Achieve- ment.		Total.	1974-75.
1	2	3	4	5	6	7	8
<b>VII. Water-supply and Sanitation—</b>							
<i>(a) Urban—</i>							
Corporation Towns—							
(i) Augmentation of protected Water-supply.	Millions gallons.	30.80	1,99.00	} N.A.			
(ii) Population covered	Millions	5.82	6.13	}			
Other towns (Piped W/S)—							
(i) Towns covered ..	Numbers	81	93	93	114	113	24
(ii) Population covered	Millions	1.93	2.07	2.07	4.00	1.25	0.40
<i>(b) Rural—</i>							
Piped Water-supply—							
(i) Villages covered	Numbers	764	425	425	1,189	579	100
(ii) Population covered	Millions	0.7	0.5	0.5	1.02	1.93	0.40
Simple Wells—							
(i) Villages covered	Numbers	593	10,633	10,638	11,226	26,568	5,000
(ii) Population covered	Millions	0.149	2.569	2.569	2.718	13.18	1.25
<i>(c) Urban Sewerage—</i>							
(i) Augmentation/Provision of Sewerage Schemes.	Numbers.						
(ii) Population covered	Millions.						

## CHAPTER XXIII

### HOUSING AND URBAN DEVELOPMENT.

The housing conditions in the urban and rural areas in Bihar are very unsatisfactory. In urban areas nearly 30 per cent of dwelling units are kutcha of which nearly 10 per cent have walls and roofs made of grass, leaves, reeds etc. A substantial number of dwelling units have very high overcrowding with about 6.3 persons per room. The total shortage of housing stock in urban areas would amount to at least 3.52 lakhs by 1974, even if houses with mud walls and tile roofs were counted in the available housing stock, and another 1.67 lakhs if the latter are, as is normal, ignored in the count.

In rural areas nearly 40 per cent of the dwelling units have walls and roofs of grass, leaves, reeds etc. and another 41 per cent have mud walls and tile roofs. Even large villages do not have a minimum environmental facilities.

2. In the Fourth Five-Year Plan the States have been executing the normal programmes of the social housing as approved by the Government of India, namely, the subsidised integrated housing schemes (including the housing schemes for industrial workers and economically weaker section of the society), Slum Clearance and re-housing Scheme, the Slum Improvement Scheme and the loan schemes for low income group housing, rental scheme for low income group employees and the Middle Income Group Housing Schemes. These were being executed by the Housing Department till the formation of the State Housing Board in August, 1972 due to which, till the current financial year the financing of the housing schemes were limited to the budgetary allocations and plan outlay including L. I. C. loans to the State Governments through the Ministry of Works and Housing. The physical and financial achievements anticipated at the end of the Fourth Five-Year Plan are described in Annexures I and II.

There has been some short-fall in slum clearance and improvement scheme and the village housing schemes. In the former the constraint has been that the normal slum improvement scheme included an element of loan, amounting to 50 per cent, the recovery of which being difficult, Local Bodies have generally been reluctant to take up these schemes. In the village housing scheme the constraint had been due to non-fulfilment of the stipulation made by the State Government that the environmental improvement should be done in villages where at least 10 persons take loan for house reconstruction. Also the provision of Rs. 10,000 per village has been found to be too low, due to which the extent of environmental improvement has not been found rewarding or generally acceptable.

The maintenance of buildings given on rent either under subsidised schemes or loan schemes have been found to be problematic and uneconomical. It would be desirable, therefore, to reduce the quantum of houses to be given on rent as far as possible and to convert, to the extent possible, the schemes in which the houses are given on ownership basis rather than on rent. Even in subsidised schemes the form of subsidy could be converted from rental subsidy to easier hire-purchase terms.

3. Within the national policy framework and keeping in view the preceding discussions on housing and urban development and the particular conditions obtaining in this State, the following objectives and strategy for housing programme are proposed to be adopted.

*Land policy.*—Planning to ensure economic use of urban land and maximise its utility.

Acquisition and social control of adequate urban land to ensure public ownership and its continued availability for various socio-economic needs, i. e., re-development, housing, slum-clearance schemes, etc.

Attention to be given to medium size towns also which are showing faster rate of growth and having little committed sites so far.

To utilise fully, unutilised land blocks within city with readily accessible urban infrastructure.

Alternative strategy for wider coverage, where possible with lower level of infrastructure facilities for the present but capable of phased improvement later.

*Housing.*—Depending upon physical and economic factors the slum problem in urban areas to be tackled by a mix of slum clearance and rehousing scheme and environmental improvement scheme. Slum areas having structures whose removal in view of their condition and location can be deferred shall be covered by providing infrastructure and environmental facilities. Others whose structure in view of location and structural conditions are potential hazards shall need clearance and rehousing.

Prevent deterioration of housing situation by substantial provision of social housing to cover backlog of houses and requirement of additional population, priority being given to weaker section, industrial workers and lower income groups.

Programmes to underscore measures for labour intensive technology, increased saving and investment.

Environmental improvement of selected villages to lead to integrated development along with schemes of rural electrification, rural water supply, rural health institutions and rural roads.

*Promotional.*—Financial and institutional support to housing co-operative societies, production of alternative materials and evolving labour intensive techniques of construction to ensure larger use of indigenous material, smaller call of capital resources.

#### Housing shortage and needs.

4. The clear shortage of urban dwellings as on 1971 amounts to 0.98 lakhs. In effect shortage after accounting for overcrowding and absolutely unsafe and unhygienic dwellings comes to 3.57 lakhs. The increase in urban population would require another 2.78 lakh units between 1974 and 1979 making a total need 6.35 lakhs dwelling units. In view of the obvious constraints of resources the coverage under social housing schemes is being limited to 21 towns as detailed in Appendix I. In some of the remaining towns efforts will have to be limited to promotional, controlling and co-ordination activities for efficient land use. These 21 towns contain 57 per cent of the total urban population, and include all towns which would be having over one lakh population by the end of the Fifth Plan and five other towns of administrative and tourist importance. The total need for these 21 towns come to 3.63 lakhs.

#### URBAN NEED : SUMMARY.

	All towns.	21 towns selected for coverage.
	<i>(Lakh numbers.)</i>	
1. Population 1971 .. .. .	56.33	32.55
2. Population projected 1974 .. .. .	71.33	40.60
3. Total need of dwellings to prevent further deterioration.—		
(a) Shortage including effect of overcrowding ..	2.45	1.40
(b) Slum levels for rehousing .. .. .	1.12	0.64
(c) Requirement for population increase in 1974—79	2.78	1.59
Total needs ..	6.35	3.63

The coverage that should have been necessary under social housing schemes, in these 21 towns come to the following figures by two alternative norms :—

- |  |                 |
|--|-----------------|
| (a) 34 per cent of total need at (III) above (after accounting for maximum contribution by other sources). | 1.24 lakhs D.U. |
| (b) U. N. target at the rate of 10 D. U. per 1,000 population per year.                                    | 1.62 lakh D.U.  |

#### **Urban land acquisition and development :**

5. Provision for land acquisition has only been made as a revolving fund. The development would be phased keeping with the actual utilisation of land so that the facilities created or resources input do not remain unutilised. Wherever stage construction is possible the possibility of alternatives with various levels and qualities of services would be examined rather than sticking to the concept of standard level of services.

#### **Slum clearance and re-housing and slum improvement :**

6. According to the advice of the Planning Commission the Minimum Needs Programme has been limited to towns having 3 lakhs population and above (1971) and the coverage only by the Central Schemes of Environmental Improvement of slum areas. However, slums located on road-side land and other strategic places having walls and roofs built of grass, leaves, reeds etc. deserve higher priority, which can only be covered under slum clearance and re-housing scheme. In view of the resource constraint the scheme is limited only to 9 towns and the coverage to only about 10 per cent of the total requirement in the Fifth Plan, i. e., 6,900 D. U. Normal slum improvement is also being limited to 5 towns in view of the constraint of resources. Under the National Minimum Need Programme the central environmental improvement scheme for slum areas would cover the three cities of Patna, Jamshedpur urban agglomeration and Dhanbad urban agglomeration. This part under the minimum need programme is shown separately in Annexures IIIA and IVA.

#### **Subsidised integrated housing scheme :**

7. The subsidised integrated housing programme which includes housing for industrial workers and economically- weaker section of the society would be continued. Steps are being taken to accelerate the programme of setting up of medium and small-scale industries units under the industries sector. Housing facilities for some percentage of the industrial workers are considered as an essential infrastructure. However, against a total requirement of 60,000 units provision is being made for only 7,700 dwelling units in the Fifth Plan. In the 21 towns the requirement of dwelling units for the economically weaker section would be 1,06,000 D. U. against which provision for only 11,800 D. U. is being proposed.

#### **Housing for Low and Middle income groups :**

8. Provisions under the scheme include 5,500 dwelling units for the Low income Group. 350 dwelling units under the rental scheme for employees in the low income group and 1,140 dwelling units for the Middle Income Group.

#### **Rural Housing Scheme :**

9. The environmental improvement of villages would be continued in the Fifth Plan period and the programme envisages environmental improvement in 65 villages so selected as to provide an integrated development together with the schemes of education, health centres, rural roads, electrification, water supply, etc.

10. Other integrated schemes to be executed through the assistance of HUDCO, etc. are not described in this document. But a Master Plan for the Fifth Plan period has been prepared by the Housing Board to cover 21 towns by non-subsidised housing schemes with HUDCO assistance.

11. Financial resources for the Plan size described in this document is visualised as follows :—

		(Rs. in lakhs)
(a) Loans and grants from the State Government	.. ..	13,00.00
(b) Other sources—		
(i) L. I. C. Loan to the State Government. Thro Ministry of W. and H.		800.00
(ii) Market borrowings	.. ..	800.00
(iii) Special L. I. C. Loans	.. ..	200.00
Total Other resources		18,00.00
GRAND TOTAL		31,00.00

The aforesaid provision is excluding the programme under the Minimum Needs Programme for which the outlay is Rs. 600.00 lakhs.

#### Material requirement :

12. The requirement of important materials for the programme formulated in this document is given in Annexure VI.

3.3.2. The aforesaid requirements have been worked out on basis of the current specifications and materials in use, but after taking due care to reduce, as far as possible, contents of materials which require intensive capital outlay. It is likely that further savings in these could be effected by use of alternative specifications and indigenous materials for which efforts would be made under the promotional activity under this plan.

#### Manpower :

13. The requirements of educated and uneducated manpower are given in Annexure V. It would be seen that the programme has heavy employment potential, the average cost being of the order of 4,300 per year, on total cost and Rs. 2,700 per year on financial outlay.

#### Requirement of equipment :

14. The requirement of heavy equipment in respect of the housing programme envisaged is as follows :—

Semi-mechanised Bricks Manufacturing Plant	.. ..	10
Semi-mechanised hollow bricks (floor units)	.. ..	4
Concrete mixers	.. ..	30
Concrete Vibrator	.. ..	60
Road Roller 8/10 tones	.. ..	20
Asphalt mixers	.. ..	10
Paver/finishers	.. ..	4
Pumps	.. ..	80
Timber Seasoning and Preservation Plant	.. ..	6

15. The provision include Rs. 45.00 lakh to be given to the State Housing Board as an establishment grant and a provision of Rs. 5.00 lakhs for Research Development.

## URBAN DEVELOPMENT

16. The number of towns and cities increased considerably in this State during the recent past. New urban centres came up and the existing cities and towns grew even larger, thereby, raising a number of problems relating to urban living. As against 153 towns including 7 cities in 1961, according to 1971 census, there are 202 towns including 9 cities. The percentage of urban population also increased from 8.43 in 1961 to 10 in 1971. This calls for provision for the necessary civic amenities and also measures to check haphazard and unplanned growth of the cities.

17. In the Fourth Five-Year Plan, a provision of Rs. 90.00 lakhs was made for the various schemes under the Urban Development sector. Preparation of Master Plans was given the highest priority in the sector so that the growth of the cities can be channelised in a planned way. A provision of Rs. 35.00 lakhs was made for the schemes of preparation of Master Plans. In the first four years of the Fourth Plan Rs. 63.00 lakhs were spent on schemes on Urban Development. For 1973-74, a provision of Rs. 18 lakhs has been made which is expected to be fully utilised. The total anticipated expenditure for the IV plan would, therefore, come to Rs. 81.60 lakhs against the original provision of Rs. 90.00 lakhs.

18. The schemes included in the Fourth Plan are proposed to be continued during the Fifth Plan also for which an outlay of Rs. 125 lakhs is being proposed. Brief description of schemewise details follows :—

### **Civic amenities in Urban areas :**

19. It is necessary to provide amenities of such types which would be helpful in development of social and cultural status. In municipal areas, the people of the locality pay various kinds of taxes to the municipalities and N. A. Cs. Due to this it has become obligatory duty of the municipalities and N. A. Cs. to provide civic amenities to the tax payers. The civic amenities include (i) construction of children parks and recreation grounds, etc., (ii) Public Urinals (iii) Public latrines (iv) Dhobi ghat, (v) Burning ghats, etc. But due to bad financial position of municipalities and Notified Area Committees they are not in a position to provide such type of amenities to their tax-payers. So, in this respect the Government of a welfare State cannot perhaps fully absolve itself from the plight of the suffering people and is naturally expected to come to the rescue of the urban local bodies which fail to provide the minimum civic amenities to the tax-payers for financial or other reasons beyond their legitimate control. Even though it would have been desirable to make larger provision for this scheme, due to paucity of funds a provision of Rs. 25 lakhs only is being proposed.

### **Improvement Trust and Town Planning schemes including market schemes :**

20. The condition of municipal markets in general in whole of the State is far from satisfactory. Municipal market is undoubtedly a source of good income for the municipalities and with the execution as such type of schemes, the municipalities after a few years of completion of the schemes may be able to stand on their own legs in respect of financial matters. A provision of Rs. 24.50 lakhs is being proposed for this scheme.

### **Establishment of Improvement Trust and Town Planning Authorities :**

21. Improvement Trusts and Town Planning Authorities in Bihar are constituted under provisions of the Bihar Town Planning and Improvement Trust Act, 1951 (Act XXX of 1952). So far four Improvement Trusts and three Town Planning Authorities as under have been created in the State :—

*Improvement Trust.*—(i) Patna, (ii) Gaya, (iii) Muzaffarpur and (iv) Ranchi.

*Town Planning Authorities.*—(i) Bokaro-cum-Chas, (ii) Bodh Gaya, (iii) Rajgir.



Proposals have also been initiated to set up Town Planning Authorities at Bhgalpur, Dhanbad, Jamshedpur-Adityapur Complex, Dehri-on-Sone-cum-Sasaram, Begusarai-Barauni-Teghra Complex and Hajipur. These proposals are at present under consideration of the State Government. It has recently been decided to set up Town Planning Authorities in all these towns whose Master Plans have already been prepared.

At the initial years of establishment, allotment of funds for their establishment expenditures are made to the Improvement Trust and Town Planning Authorities U/S 87 of the Bihar Town Planning and Improvement Trust Act, 1951. Thus to meet this expenditure it is proposed to provide Rs. 30 lakhs in the Fifth Plan.

#### **Preparation of Master Plans :**

22. The apex Government agency for all matters relating to urban and regional planning is the State Town Planning Organisation which is in existence since 1946. The work of Preparation of Master Plans for all the Improvement Trusts and all the Town Authorities and also in the towns of Industrial areas had to be undertaken by the State Town Planning Organisation. In the Third Five-Year Plan faced with this critical problem of urban growth, the Union Government launched an intensive programme of preparing long term Master Plans of all fast-growing urban areas throughout the country and offered full assistance from Central Government to all the States for preparing Master Plans for selected Towns and Cities. But during the Fourth Five-Year Plan, the central assistance for this purpose was discontinued.

The progress on these schemes have been subjected to various constraints. There has been the acute inadequacy of Planning personnel. The present sanctioned staff strength of that State Town Planning Organisation, specially in respect of qualified supervisory staff for the assigned plan projects is less than half of that prescribed by Government of India. Carrying out all these functions obviously requires requisite complement of highly technical personnel which, is neither available in the foreseeable future. The programme assigned both town planning organisation has thus suffered to a great extent due to shortage of qualified supervisory staff. However, in view of this twin potentiality in industry and agriculture and also in view of that accepted planning policy that urban decentralisation should be persuaded as a positive policy for urban growth, it would have been desirable to cover in the Fifth Five-Year Plan all the following categories of towns/cities by the various processes of urban planning programmes :—

- (1) All divisional cities.
- (2) All district towns/cities.
- (3) All subdivisional towns.
- (4) All towns with a present (1971) population of more than 30,000 which are not covered in the foregoing three categories.
- (5) All towns/cities with potential for industrial growth.
- (6) All towns and places of historic importance.

Due to constraints of resources, however, it is proposed to take up the programme in a few selected towns only. For this a provision of Rs. 45 lakhs is being proposed.

#### **Training in Town Planning :**

23. There is also a programme to advance training in town planning for which the technical staff of the town planning organisation and the officers of the local administration were deputed in Delhi and Kharagpur. Stipends are given to the trainees during the training period.

For this purpose it is proposed that a sum of Rs. 0.50 lakhs will be required during Fifth Five-Year Plan.

## ANNEXURE I

U.D.

## Provisions and Expenditure in the Fourth Plan—Housing.

Scheme.	Plan Provision.	1969-70 expenditure.	1970-71 expenditure.	1971-72 expenditure.	1972-73 expenditure (probable).	1973-74 As Appd. (Board Budget).	Total 5 years (1974-79).
1	2	3	4	5	6	7	8
1. Subsidised Industrial Housing ..	230.00	13.90	24.00	21.48	14.50	118.27	192.15
2. Low Income Group Housing ..	180.00	25.82	22.72	23.60	29.10	56.00	157.24
3. Middle Income Group Housing ..	80.00	10.24	11.62	11.56	21.00	51.02	105.44
4. Slum Clearance/Improvement..	20.00	0.25	Nil	Nil	Nil	5.00	5.25
5. Village Housing .. ..	50.00	1.21	1.08	1.07	6.00	18.00	27.36
6. Plantation Labour Housing ..	This is not in operation in the State of Bihar.						
7. Land Acquisition and Development ..	150.00	30.50	30.02	27.37	10.36	157.93	256.18
8. Rental Housing .. ..	40.00	4.50	1.40	0.62	0.10	24.94	31.56
9. Other Schemes .. ..	Nil	Nil	Nil	Nil	Nil	Nil	Nil
<b>TOTAL</b> ..	<b>750.00</b>	<b>86.42</b>	<b>90.84</b>	<b>85.70</b>	<b>81.06</b>	<b>431.16</b>	<b>775.18*</b>

N.B.—Figures against serials 2 and 3 include loan disbursement by the Housing Department as well.

(\*) Budget as approved will include Rs. 258.00 lakhs from budgetary sources and not from other Institutional finance like HUDCO, etc.

## ANNEXURE II.

## Physical Targets and Achievements in the Fourth Plan—Housing.

Scheme.	Units.	Fourth Plan target.	1969-70 Achievement.	1970-71 Achievement.	1971-72 Achievement.	1972-73 Achievement.	1973-74 Achievement.	Total 5 years (1969-74)
1	2	3	4	5	6	7	8	9
1. Subsidised Industrial Housing	No. of houses	2,750	36	390	650	Nil	1,200	2,276
2. Low Income Group Housing	Ditto	1,440	216	184	360	200	448	1,408
3. Middle Income Group Housing	Ditto	320	68	80	80	64	204	496
4. Slum Clearance Improvement	Ditto	Nil	116	Nil	Nil	Nil	50	168
5. Village Housing	.. Ditto	742	Nil	Nil	Nil	Nil	297	297
							90	90
6. Plantation Labour Housing	Ditto	This is not in operation in the State of Bihar.						
7. Land Acquisition and Development.	(No. of acres developed).	1,225.00	10.00	601	114.00	100.00	1,600.00	2,426.00
8. Rental Housing	.. No. of houses	320	150	120	80	Nil	200	550
9. Other scheme	.. Ditto	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	houses	5,572	586	774	1,170	264	2,399	1,600.00
TOTAL	acres developed	1,225.00	10.00	601	114.00	100.00	90	acres.
		acres.	acres.	acres.	acres.		villages.	

## ANNEXURE III.

## Provisions and Expenditure in the Fifth Plan Housing.

(Rupees in lakhs.)

Scheme.	Plan Provi- sion.	Phasing of Expenditure.				
		1974-75	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7
<b>A. Subsidised Schemes :</b>						
1. Subsidised Integrated Housing—						
1.1 Subsidised Industrial Housing .. .. .	600.00	48.00	78.00	114.00	156.00	204.00
1.2 Tenements for E. W. S. .. .. .	800.00	64.00	104.00	152.00	208.00	272.00
2. Slum Clearance and Improvement—						
2.1 Slum Clearance and re-housing .. .. .	400.00	32.00	52.00	76.00	104.00	136.00
2.2 Slum Improvement .. .. .	25.00	2.00	3.25	4.75	6.50	8.50
3. Village Housing .. .. .	20.00	1.60	2.60	3.80	5.20	6.80
<b>B. Loan Schemes :</b>						
4. L. I. C. Housing .. .. .	650.00	52.00	84.50	123.50	169.00	221.00
5. M. I. G. Housing .. .. .	205.00	16.40	26.65	38.95	53.30	69.70
6. Rental Housing .. .. .	50.00	4.00	6.50	9.50	13.00	17.00
7. Land Acquisition .. .. . (Revolving Fund).	300.00	150.00	100.00	50.00	..	..
<b>C. Miscellaneous :</b>						
8. Establishment (R. and D.) .. .. .	50.00	4.00	6.50	9.50	13.00	17.00
<b>TOTAL</b> .. .. .	<b>3,100.00</b>	<b>374.00</b>	<b>464.00</b>	<b>582.00</b>	<b>728.00</b>	<b>952.00</b>

## ANNEXURE IIIA.

Provision and Expenditure in the Fifth Plan Housing National Minimum Need Programme.

[Rupees in lakhs.]

Scheme.	Plan Provi- sion.	Phasing of Expenditure.				
		1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7
Environmental Improvement .. .. .	6,00.00	48.00	78.00	1,14.00	1,56.00	2,04.00

## ANNEXURE IVA.

Physical Targets and their Phasing in the Fifth Plan Housing National Minimum Need Programme.

Scheme.	Unit.	Fifth Plan Target.	Phasing.				
			1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8
Environmental Improvement.. .. .	Persons	3,19,000	25,520	41,470	60,610	82,940	1,08,460

## ANNEXURE IV.

Physical targets and their phasing in the Fifth Plan-Housing.

Scheme.	Unit.	Fifth Plan Target	Phasing.				
			1974-75	1975-76	1976-77	1977-78	1978-79.
1	2	3	4	5	6	7	8
<b>A. Subsidised Schemes :</b>							
<b>1. Subsidised Integrated Housing—</b>							
1.1 Subsidised Industrial Housing	No. of houses	7,700	616	1,001	1,463	2,002	2,618
1.2 Tenements for E. W. S. ..	Ditto	11,800	944	1,534	2,242	3,068	4,012
<b>2. Slum Clearance and Improvement—</b>							
2.1 Slum Clearance and rehousing	Ditto	6,900	552	897	1,311	1,794	2,346
2.2 Slum Improvement ..	Hectares ..	130.00	10.40	16.90	24.70	33.80	44.20
3. Village Housing ..	No. of villages	65	5	9	12	17	22
<b>B. Loan Schemes :</b>							
4. L. I. G. Housing ..	No. of houses	5,500	440	715	1,045	1,430	1,870
5. M. I. G. Housing ..	Ditto	1,140	91	148	216	296	389
6. Rental Housing ..	Ditto	350	28	45	66	91	120
7. Land Acquisition ..	Hectares ..	935	300	200	200	150	85
(Revolving Fund).							
<b>C. Miscellaneous :</b>							
8. Establishment (R. and D.) ..	..	..	..	..	..	..	..
<b>TOTAL</b>	No. of houses	<b>33,390</b>	<b>2,671</b>	<b>4,340</b>	<b>6,340</b>	<b>8,681</b>	<b>11,355</b>
	Hectares ..	<b>1,065</b>	<b>310.40</b>	<b>216.90</b>	<b>224.70</b>	<b>183.80</b>	<b>129.20</b>
	No. of villages	<b>65</b>	<b>5</b>	<b>9</b>	<b>12</b>	<b>17</b>	<b>22</b>

## ANNEXURE V.

U. D.

**Estimate of employment generated in the Fourth Plan and targets for the Fifth Plan  
under Housing Programmes in the State Plans.**

1. Fourth Plan Target	On the basis of	
	gross outlay.	net outlay.
	Educated.	Uneducated.
1969-70 (Actual) ..	40	1,200
1970-71 (Actual) ..	54	1,650
1971-72 (Actual) ..	60	1,800
1972-73 (Actual) ..	62	1,900
1973-74 (Estimated) ..	360	10,900
<b>Total 5 years ..</b>	<b>576</b>	<b>17,450</b>

1969—74

II Fifth Plan Target	Educated	Uneducated
1974-75 .. ..	261	7,950
1975-76 .. ..	500	15,200
1976-77 .. ..	690	21,000
1977-78 .. ..	937	28,500
1978-79 .. ..	1,220	37,300
<b>Total ..</b>	<b>3,608(A)</b>	<b>1,09,950 (B)</b>

Total employment in 5th Plan (A)+(B)=1,13,558 man year.

Total financial outlay of 5th Plan Annexure III Rs. 31,00.00 lakhs.

Average cost of employment of 1 man for one year based on financial outlay  
=31,00.00=Rs. 27,00.00.

1,136

NOTE.—The quantum of employment shown above does not include the employment which will be generated for manufacture of building materials like bricks, cement, steel etc.

## ANNEXURE VI.

## Requirement of Materials for Housing Schemes in the 5th years Plan under Bihar State Housing Board.

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Materials.	Quantity required.
1. Bricks .. .. .	4,500 lac nos.
2. Cement .. .. .	180 lac nos.
3. Steel .. .. .	0.26 lac Tonnes.
4. Stone chips/metal .. .. .	165 lac cft.
5. Timber .. .. .	6.4 lac cft.
6. Bitumen .. .. .	.05 lac tonnes.
7. R. C. C. Spun pipes (300 mm to 1200 mm) ..	11,800 meters.
8. C. A. Sheets .. .. .	236 tonne.
9. C. A. pipes (75 mm to 1,000 mm) .. .. .	.. Metre.
10. G. C. I. Sheets .. .. .	1,180 tonne.
11. Paints (Ready mixed) .. .. .	44,200 Litre.
12. Door and Window fitting for .. .. .	37,900 houses.
13. Ply wood .. .. .	1,42,000 Sq. Metre.
14. Glass sheets (3 mm) .. .. .	23,600 Sq. Metre.
15. H. C. L. Soil pipes and Specials (75 mm to 100 mm).	1,18,000 Metre.
16. G. I. pipes and fittings (12 mm to 40 mm) ..	1,42,000 Metre.
17. C.I. Hanged pipes and specials (75 mm to 300 mm)	88,800 Metre.
18. Cistorns and Water closets .. .. .	47,300 nos.
19. Wash Basins .. .. .	2,840 nos.
20. Sanitary fittings for .. .. .	37,900 nos.
21. Water metres .. .. .	118 nos.
22. Sluice valves and Tail pieces .. .. .	590 nos.
23. Electric fans .. .. .	1,400 nos.
24. Electric Cables P.V.C. and V.I.R. .. .. .	59,200 Soils.
25. Conduit pipes .. .. .	88,800 Metre.

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## APPENDIX I.

## List of Selected Towns for the 5th Five-Year Plan.

Name of town.	Population in lakhs (1971).
1. Patna Urban Agglomeration .. ..	4.91
2. Jamshedpur Agglomeration .. ..	4.56
3. Dhanbad Urban Agglomeration .. ..	4.34
4. Ranchi Urban Agglomeration .. .. (including Kanke and Namkum) etc.	3.02
5. Gaya .. ..	1.80
6. Bhagalpur .. ..	1.73
7. Monghyr and Jamalpur .. ..	1.64
8. Darbhanga .. ..	1.52
9. Muzaffarpur .. ..	1.27
10. Barauni Urban Agglomeration .. ..	1.05
11. Bokaro Urban Agglomeration .. ..	1.07
12. Biharsharif .. ..	1.00
13. Arrah .. ..	0.93
14. Chapra .. ..	0.83
15. Dalmianagar .. ..	0.47
16. Sasaram .. ..	0.40
17. Hazaribagh .. ..	0.51
18. Purnea .. ..	0.57
19. Motihari .. ..	0.37
20. Saharsa .. ..	0.23
21. Rajgir .. ..	0.13
	32.55
Total	32.55

## CHAPTER XXIV.

### WELFARE OF BACKWARD CLASSES.

Of 563.53 lakhs of Bihar's total population (1971 Census) Scheduled Castes number 79.50 lakhs and Scheduled Tribes 49.32 lakhs which constitute 14.1 and 8.8 per cent respectively of the total population of the State. Persons belonging to other Backward Classes were not enumerated in 1971 or 1961 Census. According to 1951 Census their population was about 62 lakhs. General rate of increase in population in 1961 was 19.77 per cent and in 1971, 21.31 per cent. Assuming the same rate of growth in respect of these classes their population in 1971 should be 90 lakhs. Together with Scheduled Castes and Scheduled Tribes the Backward Classes constitute 39 per cent of the total population of the State.

2. Promotion of the economic and educational interests of the weaker sections of the community is a constitutional responsibility. The State Government have been making efforts in this direction though because of several constraints, the main being financial, the pace of progress has been rather slow. Provisions were made for giving special assistance to Scheduled Castes, Scheduled Tribes and Backward Classes of Annexure I for their educational advancement, economic growth, cultural enrichment, better health and similar other matters.

#### Scheduled Tribes.

3. For educational advancement of Scheduled Tribes, a number of facilities have been given to them by way of incentive, viz., Free education, Stipend, book grants, payment of examination fees, tuition fees, residential schools and special hostels. In respect of Scheduled Tribes free education is imparted up to post-graduate standard. The loss sustained by institutions on account of fees is reimbursed. During the Fourth Five-Year Plan Rs. 65.22 lakhs were spent on this account and the number of Scheduled Tribe students covered at the end of the Fourth Plan is 1,30,443. In the Fifth Five-Year Plan the expenditure will be of the order of Rs. 181.25 lakhs as detailed below :—

Year.	Financial Target.	Physical Target.
1974-75	.. 33.80 lakhs	67,600 students.
1975-76	.. 34.50 „	69,000 „
1976-77	.. 36.25 „	72,500 „
1977-78	.. 37.70 „	75,400 „
1978-79	.. 39.00 „	78,000 „
	181.25 lakhs	3,62,500 students

4. Stipends are sanctioned to boys and girls studying in Primary, Middle and High Schools and Colleges and other Educational Institutions. In the Primary Schools the rate of stipend is Rs. 4 from class I to V, Rs. 10 from Class VI to VII and Rs. 15 from Class VIII to XI. In respect of boys living in hostels, stipend is a little higher. During the Fourth Plan the expected expenditure by the end of 1973-74 is Rs. 95.004 lakhs over award of stipends to Scheduled Tribes in Primary, Middle and High Schools. The number of stipends awarded during the Fourth Plan would come to about 32,850 in Primary and Middle Schools and 37,220 in High Schools. In the Technical Institutions (Pre-matric) the rate of stipend is Rs. 25.00 and the expected expenditure during the Fourth Five-Year Plan is Rs. 13.381 lakhs

covering about 4,440 students. During the Fifth Plan period it is proposed to award stipends to 68,285 number of students in Primary and Middle Schools and 55,175 number of students in High Schools.

5. The Government are also keen to bring about qualitative improvement among the Scheduled Tribe boys. With this end in view provision is being made for giving stipend to boys going to specialised institutions, like Indian School of International Studies, Tata School of Social Sciences, Indian School of Mines, St. Xavier Institute etc. The rate of stipend will be Rs. 200 per student per month. A provision of Rs. 2.50 lakhs is being made for this.

#### Book Grants.

6. This is given to boys who do not get stipend. During Fourth Five-Year Plan Rs. 4.75 lakhs will approximately be spent covering 47,500 grants. Books naturally should have highest priority and as such it is proposed to increase the same to Rs. 18.75 lakhs in the Fifth Five-Year Plan covering 1,87,500 boys as detailed below :—

Year.	Financial target. (Rs. in lakhs)	Physical target.
1974-75	3.25	32,500 students
1975-76	3.50	35,000 „
1976-77	3.75	37,500 „
1977-78	4.00	40,000 „
1978-79	4.25	42,500 „
	18.75	1,87,500 „

#### Residential Schools.

7. There are 38 residential schools at present of which 8 are Secondary and the rest up to Middle level. These schools have proved very useful and it is necessary to increase their number in the Fifth Five-Year Plan. Ten new residential schools are therefore, proposed to be added. It is also proposed to open 20 new Adivasi Hostels during Fifth Five-Year Plan period.

#### Reimbursement of Fees.

8. On reimbursement of examination fees to School Examination Board/Universities, the expected expenditure by the end of the Fourth Five-Year Plan is Rs. 36.87 lakhs. Due to increase in the number of examinees, the expenditure will go up to Rs. 75.00 lakhs by the end of Fifth Five-Year Plan. It may be mentioned here that there are huge arrears on account of this and no provision is being made in the Fifth Five-Year Plan to clear these arrears. This facility at present is available only for Board/University Examinations. In the Fifth Plan, examination fee will be reimbursed even in respect of State/Union Public Service examinations out of the provisions made under this scheme.

9. The Adivasis unfortunately are often dragged into litigations by money-lenders and vested landed interests. The number of cases is likely to go up in view of land restoration measures taken up by State Government. It is, therefore, proposed that this continuing scheme of providing legal aid should be further strengthened. During the Fourth Five-Year Plan the expected expenditure is Rs. 2.50 lakhs. It is proposed to make a provision of Rs. 7.50 lakhs in the Fifth Five-Year Plan.

10. This scheme of providing employment was introduced in 1972-73. The expected expenditure is Rs. 10 lakhs by the end of Fourth Five-Year Plan. Under this scheme weaving, spinning, charcoal burning, brick-manufacturing, supply of bullock carts, renovation of tanks, setting up village market, setting up industrial estates are to be taken up. Provision of Rs. 10.00 lakhs has been made in the Fifth Five-Year Plan for this.

11. There was a scheme for distribution of milch-cattle in the Fourth Five-Year Plan. This has not proved popular in Scheduled Tribe areas. High breed cattle need feed and care at a scale which is not available in these areas. In absence of proper feed and other facilities milch cows do not yield expected quantity of milk and this scheme proves uneconomic. It is, therefore, proposed that in the Fifth Five-Year Plan goats should instead be given in place of cows specially in Santhal Parganas areas where they are very popular. To this end, a provision for Rs. 7.50 lakhs is proposed.

12. In the Fourth Plan, there was a scheme for giving agriculture subsidy for purchase of bullocks, seeds and agricultural implements, etc. Expenditure during Fourth Plan is likely to be Rs. 12.55 lakhs. With institutional finance available for these purposes, in form of loan, it is expected that Scheduled Tribes would be benefited from this. Hence under this Scheme Rs. 15.00 lakhs only is provided for the Fifth Five-Year Plan.

### Scheduled Castes

13. More or less similar facilities have been given to Scheduled Castes in the field of education, viz. (a) free education, (b) stipends (c) book grants (d) payment of examination fees, (e) facilities of residential schools and (f) hostels.

In respect of Scheduled Castes, free education is available at all stages of education. At Post-Graduate stage, however, a minimum means test is applied in order to restrict the facilities to poor candidates only. The exemption from payment of tuition fees to school students belonging to Scheduled Castes was previously granted by the Education Department. The scheme has been transferred to Welfare Department since 1972-73. The loss sustained by the exemption of tuition fee is reimbursed to these institutions. The amount paid during the last 2 years is Rs. 17.11 lakhs, Rs. 8.51 lakhs in 1972-73 and Rs. 8.60 lakhs in 1973-74. The expenditure proposed in the Fifth Five-Year Plan over payment of tuition fees is of the order of Rs. 70.00 lakhs. Financial and physical targets in the next five years are as follows :—

Year.	Expenditure proposed. (Rs. in lakhs).	Physical target.
1974-75	10.00	20,000
1975-76	12.00	24,000
1976-77	14.00	28,000
1977-78	16.00	32,000
1978-79	18.00	36,000
<b>Total</b>	<b>70.00</b>	<b>1,40,000</b>

14. Stipends are sanctioned to selected boys and girls on the basis of merit-cum-poverty in primary, middle and high schools and colleges and other higher educational institutions. Rate of stipend in primary school is Rs. 1 for Class I, Rs. 2 for Class II and III, Rs. 4 for Class IV and V and Rs. 7 for Class VI to VII. For the boys living in the hostels the rate of stipend is a little more. The rate of stipend awarded to high school students is Rs. 10 per month. The rate of stipend for hostellers is Rs. 25. During Fourth Five-Year Plan Rs. 23.44 lakhs was spent over awarding

stipends to 46,880 students in primary and middle schools and Rs. 71.95 lakhs to 52,506 students in high schools. The financial and physical targets in the Fifth Five-Year Plan are Rs. 40.75 lakhs for 81,500 students and Rs. 96.25 lakhs for 70,160 students respectively.

15. Out of the enrolment of Scheduled Caste boys and girls according to our plan only 81,500 boys and girls will be in receipt of stipends by the end of Fifth Five-Year Plan. This position is extremely depressing. In the secondary schools the position will be almost the same. At the end of 1978-79 only 70,160 students will be getting stipends against 3.15 lakh students approximately. The number of students in the institutions of higher education will be about 100.

The physical target and expenditure over all students of Scheduled Caste yearwise is as follows:—

Year.	Financial target (Rs. in lakhs).	Physical target (No. of students).
Stipends to Primary and Middle School students.		
1974-75 .. ..	7.65	15,300
1975-76 .. ..	7.90	15,800
1976-77 .. ..	8.15	16,300
1977-78 .. ..	8.40	16,800
1978-79 .. ..	8.65	17,300
Total .. ..	40.75	81,500
Stipends to High School students.		
1974-75 .. ..	18.75	13,668
1975-76 .. ..	19.00	13,850
1976-77 .. ..	19.25	14,032
1977-78 .. ..	19.50	14,214
1978-79 .. ..	19.75	14,396
Total .. ..	96.25	70,160
Stipends in Technical Institutions (Pre-matric).		
1974-75 .. ..	2.25	750
1975-76 .. ..	2.50	835
1976-77 .. ..	2.75	920
1977-78 .. ..	3.00	1,000
1978-79 .. ..	3.25	1,085
Total .. ..	13.75	4,590
Stipends to Post-graduate and Higher Education in Specialised Institutions.		
1974-75 .. ..	0.50	20
1975-76 .. ..	0.50	20
1976-77 .. ..	0.50	20
1977-78 .. ..	0.50	20
1978-79 .. ..	0.50	20
Total .. ..	2.50	100

16. Book grant is given to those students who do not get stipend even when they deserve it. Books are essential ingredients of study and as such highest priority should be attached to it. Rs. 10 lakhs has been proposed for expenditure to cover 83,350 students during the Fifth Five-Year Plan as against Rs. 2.771 lakhs likely to be spent during the Fourth Five-Year Plan which covers 23,112 students.

17. This is a continuing scheme. There are 32 residential schools out of which 14 have their own buildings and the rest are in rented houses. Two of these schools are secondary and rest are only of middle level. These schools have proved very useful to the Scheduled Caste students. It is proposed to open only five residential schools in the Fifth Plan. It is proposed to upgrade 5 schools to Secondary level and to construct buildings for 5 schools. The buildings would be constructed through the agency of the Forest Department. The total cost over these programmes will be Rs. 54.05 lakhs.

18. There are 78 hostels for Scheduled Caste students. These hostels are 25,50 and 100-seated. The Scheduled Caste Advisory Board had recommended opening of at least 1 hostel in each block but considering availability of fund only 30 hostels are proposed to be opened and 15 buildings constructed during the Fifth Five-Year Plan. The construction of hostel buildings will be done with locally available materials and the cost will not be as high as it would have been according to P.W.D. specifications. The expenditure during the Fifth Five-Year Plan is anticipated to be Rs. 21.75 lakhs.

19. Scheduled Castes and Scheduled Tribes appearing in Board and University examinations are not required to pay examination fees. The loss sustained by Board and Universities on this account is reimbursed to them. On account of non-availability of funds huge arrears have accumulated but no provision has been made for clearing them in the Fifth Five-Year Plan. However, keeping in view the increased number of students only Rs. 70.00 lakhs is proposed to be spent to cover 1,82,500 students during the Fifth Five-Year Plan as against Rs. 18.50 lakhs likely to be spent during the Fourth Five-Year Plan.

20. It has been considered necessary to introduce a new scheme of special stipends in specialised institutions. The rate of stipend will be Rs. 200 per month. A provision of Rs. 2.50 lakhs at the rate of Rs. 0.50 lakh per year has been proposed for this scheme. It is proposed to award 20 such stipends each year.

21. In the Fifth Plan Rs. 20 lakhs has been provided for organisation of Co-operative Societies and another Rs. 20 lakhs for employment-oriented schemes. The employment-oriented scheme will cover grant of subsidy for professional trades and organisations.

### **Other Backward Classes**

22. During the Fourth Five-Year Plan it is expected that a sum of Rs. 9.907 lakhs would be spent in award of stipends to 19,914 students. In the Fifth Plan only slight increase is proposed in Expenditure and Physical Target—Rs. 12.50 lakhs for stipends to 25,000 students.

23. The students of other Backward Classes reading in the high schools are awarded stipends on poverty-cum-merit basis. During the Fourth Five-Year Plan Rs. 17.50 lakhs was spent to cover 18,230 students. During the Fifth Five-Year Plan Rs. 20.00 lakhs is proposed to be spent to award stipends to 20,850 students.

24. In technical institutions (non-matric courses) the other Backward Class students are paid stipends at the rate of Rs. 20 per month which is lower than the rate in the case of Scheduled Tribes and Scheduled Castes. During the Fourth Five-Year

Plan a sum of Rs. 2.35 lakhs is likely to be spent for giving stipends to 977 students. The target for the Fifth Five-Year Plan has been fixed at Rs. 3.00 lakhs for 1,250 students.

25. The magnitude of the problem in respect of reimbursement grants of examination fees to Universities and the Board is more acute here than the case of Scheduled Castes and Scheduled Tribes. Huge arrears have accumulated but no provision could be made for clearing them. During Fourth Five-Year Plan Rs. 8.95 lakhs was spent. During the Fifth Five-Year Plan a sum of Rs. 15.00 lakhs is proposed to be spent.

### Social Welfare

26. Social welfare is concerned with the well-being of the entire community, not only of a particular section of the population which may be handicapped in one way or another. Problems which have already come to the fore no doubt claim urgent attention, but it is equally necessary to take steps to prevent the emergence of the new problems.

27. The Social Welfare section of the Plan consists of three separate groups, viz., (i) Social Welfare Services and Institutions aided through the Central Social Welfare Boards, (ii) the same run or aided directly by the State Departments and (iii) Social Defence Scheme. The various purposes sought to be fulfilled through all these methods are complementary to one another.

28. Provision under this sector is mainly spent on expansion of Blind School, Patna, taking over of one Deaf and Dumb School, Patna, grant of stipends to handicapped students and in making grants to institutions and organisations engaged in welfare of women, children and the welfare of the handicapped and schemes of social defence.

29. The target achieved in the Plan Sector cannot be regarded a major achievement and greater attention has to be paid to the needs of the children, the old and the infirm, and women specially fallen women. All such persons need to be provided with educational and employment opportunities. The needs of all those suffering from other handicaps, whether physical or mental, social or economic, etc. have to be attended to. Keeping this end in view proposed programmes for the Fifth Five-Year Plan have been drawn up. A provision of Rs. 3.02 lakhs has been proposed for the Social Welfare Sector which includes a provision of Rs. 2.00 lakhs for meeting the administrative and transport costs of Nutrition Programme. Some of the important schemes have been described below.

30. The building of Patna Blind School needs thorough repair and other auxiliary buildings are required to be constructed. The number of students in it is required to be increased as there is no similar Government institution in the State. Keeping this in view a provision of Rs. 12.98 lakhs has been proposed to be made during the Fifth Five-Year Plan for expansion of this school. It is proposed to open another Blind School for 50 boys outside Patna. A provision of Rs. 10.11 lakhs has been made for the purpose.

A Blind School for girls is urgently needed because there is no such school in the State at present. As such a proposal has been made for opening a Blind School initially for 50 girls at a total cost of Rs. 18.75 lakhs.

31. The Deaf and Dumb School formerly under private management was taken over by Government in July, 1972. It has yet to be organised and strengthened properly for its efficient running. In the Fourth Five-Year Plan there is a provision of Rs. 1.28 lakhs only which is not sufficient. Much larger provision is required for providing teachers on prescribed scale, for increasing the number of students from

25 to at least 50, for repairing the existing building which is in a dilapidated condition and for a hostel building for 50 students. It is also proposed to increase the rate for food and clothing proposed for Blind School. For all these requirements, a sum of Rs. 9.97 lakh has been proposed in the Fifth Five-Year Plan.

32. Handicapped students regarding in schools and colleges are awarded stipends by State Government. The Fourth Plan expenditure on this scheme is likely to be Rs. 3 lakhs. In the Fifth Five-Year Plan a sum of Rs. 6.00 lakhs is proposed to be provided for 1,450 handicapped students.

33. A large number of voluntary organisations and institutions have been working in the State for a long time for the welfare of women, children and handicapped. During the Fourth Plan a sum of Rs. 1.368 lakhs is being spent on this scheme. In the Fifth Five-Year Plan Rs. 7.00 lakhs is proposed to be spent.

34. In order to eradicate some social evils and also for bringing up forsaken children with a view to making them good citizens a Home for Homeless is proposed to be opened during the Fifth Five-Year Plan. It will of course be expanded in due course but in the beginning 100 children would be kept, nourished and educated in this home. A provision of Rs. 7.50 lakhs is being proposed in the Fifth Plan.

35. Special Nutrition Programme is at present executed under Centrally-Sponsored Programme in Social Welfare Sector. During the Fifth Five-Year Plan under minimum needs programme a sum of Rs. 21,64.00 lakhs will be spent. Besides, another sum of Rs. 2.00 lakhs is being provided for administration and transport cost of the Nutrition Programme.



TABLE I

## DEVELOPMENT OF BACKWARD CLASSES

Profile of levels of development at the end of Fourth Plan and targets in the Fifth Plan.

	Position at the end of 1968-69.		Achievement at the end of Fourth Plan.		Fifth Plan Targets.	
	Scheduled Caste.	Scheduled Tribe.	Scheduled Caste.	Scheduled Tribe.	Scheduled Caste.	Scheduled Tribe.
1	2	3	4	5	6	7
EDUCATION.						
Number of Scheduled Castes/Scheduled Tribes—						
(a) Primary level .. ..	2,88,456	2,65,924	3,20,506	2,95,248	} 16.84 lakh	10.00 lakhs
(b) Middle level .. ..	96,456	1,16,168	1,07,173	1,29,075		
(c) Secondary level .. ..	39,696	30,903	44,106	34,336		
Post-matric.						
(a) Graduate .. ..	2,991	2,901	3,323	3,223	N.F.	N.F.
(b) Post-Graduate .. ..	232	188	257	208	N.F.	N.F.
SCHOOL-GOING CHILDREN.						
Number of school-going children among Scheduled Castes/Scheduled Tribes in the age-group of—						
(a) 4—6 .. ..	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
(b) 6—11 .. ..	3,40,983	3,43,812	3,78,869	3,84,235	} 16.84 lakhs	10.00 lakhs
(c) 11—14 .. ..	57,906	47,844	64,340	53,159		
(d) 15—20 .. ..	25,719	19,139	28,576	21,265		
HOSTEL FACILITIES.						
(a) No. of hostels now being run for Scheduled Castes/Scheduled Tribes.	76	155	78	168	30	20
(b) Percentage of Scheduled Castes/Scheduled Tribes now in these general hostels.	N.A.	N.A.	N.A.	N.A.	N.F.	N.F.
(c) No. of Backward Classes hostels providing coaching facilities.	Nil	Nil	Nil	Nil	Nil	Nil
(d) No. of hostels for Backward Classes located—						
(i) Number of cities and large towns ..	2	25	2	27	According to need and demand.	
(ii) Number at district level ..	27	10	27	10	Ditto.	
(iii) Number at block level ..	47	120	49	131	Ditto.	
GIRLS' EDUCATION.						
No. of Scheduled Caste and Scheduled Tribes girls passed matric/secondary schooling as compared to other girls and entered colleges for—						
(a) Graduate degree .. ..	} N.A.	} N.A.	} N.A.	} N.A.	} N.A.	} N.A.
(b) Post-Graduate degree .. ..						

TABLE I—contd.

## DEVELOPMENT OF BACKWARD CLASSES

Profile of levels of development at the end of Fourth Plan and targets in the Fifth Plan.

	Position at the end of 1968-69.		Achievement at the end of Fourth Plan.		Fifth Plan Targets.	
	Scheduled Caste.	Scheduled Tribe.	Scheduled Caste.	Scheduled Tribe.	Scheduled Caste.	Scheduled Tribe.
1	2	3	4	5	6	7
<b>TECHNICAL TRAINING.</b>						
(a) No. of boys and girls of Scheduled Caste/Scheduled Tribe enrolled in—						
(i) Polytechnics .. .. .	153	35	170	39	N.F.	N.F.
(ii) I.T.I. .. .. .	365	332	405	369	N.F.	N.F.
(iii) Crafts/Vocational schools .. .. .	138	107	153	118	N.F.	N.F.
(b) Scheduled Caste/Scheduled Tribes students entered collegiate education and completed—						
(i) Graduate degree course .. .. .	} Figures not available.					
(ii) Post-graduate degree course .. .. .						
(iii) Polytechnic courses .. .. .						
<b>PRE-EXAMINATION TRAINING.</b>						
No. of Scheduled Caste/Scheduled Tribe graduates enrolled in pre-examination training centres for—						
(i) All-India competitive examination.. .. .	} Figures not available.					
(ii) State services examinations .. .. .						
(iii) No. of how many ultimately getting absorbed in—						
(a) Reserved posts in I.A.S./I.P.S.						
(b) In State Services .. .. .						
<b>EMPLOYMENT.</b>						
No. of Scheduled Castes/Scheduled Tribes graduates secured jobs in—						
(i) Reserved posts .. .. .	} Figures not readily available.					
(ii) Non-reserved posts in Central/State Services in the last five years.						
b) No. of Scheduled Caste/Scheduled Tribe graduates got jobs in Public Sector enterprises at—						
(i) Clerical level .. .. .						
(ii) Managerial level .. .. .						
c) No. of Scheduled Caste/Scheduled Tribe graduates obtained employment in private sector.	N.A.	N.A.	147	176	N.A.	N.F.

TABLE I—contd.

## DEVELOPMENT OF BACKWARD CLASSES

Profile of levels of development at the end of Fourth Plan and targets in the Fifth Plan.

	Position at the end of 1968-69.		Achievement at the end of Fourth Plan.		Fifth Plan Targets.	
	Scheduled Caste.	Scheduled Tribe.	Scheduled Caste.	Scheduled Tribe.	Scheduled Caste.	Scheduled Tribe.
1	2	3	4	5	6	7
<b>TOTAL EXPENDITURE</b>						
ECONOMIC DEVELOPMENT.						
Agricultural land and agricultural labourers.						
(i) No. of Scheduled Castes/Scheduled Tribes who—						
(a) Cultivate their land ..	19,00,050	38,51,892	N.A.	N.A.	N.F.	N.F.
(b) Are agricultural labourers ..	43,64,550	4,73,472	N.A.	N.A.	N.F.	N.F.
(c) Landless labourers ..	N.A.	N.A.	N.A.	N.A.	N.F.	N.F.
(ii) No. of Scheduled Castes/Scheduled Tribes who have benefited from re-distribution of agricultural land.	N.A.	N.A.	N.A.	N.A.	N.F.	N.F.
(iii) Area under <i>jhum</i> (shifting) cultivation in the State and number of Scheduled Tribe families practising <i>jhum</i> cultivation.	N.A.	N.A.	N.A.	N.A.	N.F.	N.F.
(a) Roads communication facilities available per 10,000 of population --						
(i) Highways (no. and mileage)	}	N.A.	N.A.	N.A.	N.A.	N.F.
(ii) District P. W. D. (no. and mileage)						
(iii) Forest roads (no. and mileage)						
(iv) Village link roads with block and district headquarters (no.)	}	}	}	}	}	}
(b) Bridges/culverts .. .. .						
(c) Post and telegraph offices .. .. .	} Figures not available.					
HOUSING FOR SCHEDULED CASTES/SCHEDULED TRIBES.						
House/house-sites owned—						
(i) In rural areas .. .. .	N.A.	N.A.	N.A.	N.A.	N.F.	N.F.
(ii) In urban areas .. .. .	N.A.	N.A.	N.A.	N.A.	N.F.	N.F.
(iii) No. of Housing Colonies .. .. .	N.A.	N.A.	N.A.	N.A.	N.F.	N.F.
(iv) No. of Co-operative Housing Societies	N.A.	N.A.	N.A.	N.A.	N.F.	N.F.
(v) No. of Scheduled Castes/Scheduled Tribes benefiting under—						
(a) Subsidised housing .. .. .	N.A.	N.A.	25	Nil	N.F.	N.F.
(b) Low-income housing .. .. .	..	..	..	..	..	..
(c) Village housing .. .. .	..	..	..	..	..	..

TABLE I

## DEVELOPMENT OF BACKWARD CLASSES

Profile of levels of development at the end of Fourth Plan and targets in the Fifth Plan.

	Position at the end of 1968-69.		Achievement at the end of Fourth Plan.		Fifth Plan Targets.					
	Scheduled Caste.	Scheduled Tribe.	Scheduled Caste.	Scheduled Tribe.	Scheduled Caste.	Scheduled Tribe.				
1	2	3	4	5	6	7				
<b>MEDICAL AND PUBLIC HEALTH.</b>										
(i) No. of hospitals in tribal areas and no. of beds per 1,000 population of tribals.	N.A.	N.A.	..	25 hospitals 4,401 beds	N.F.	N.F.				
(ii) No. of PHC, FPC, WCWC located in tribal areas.				PHC 564 FPC 193 WCWC 20	N.F. N.F. N.F.	N.F. N.F. N.F.				
<b>WATER-SUPPLY.</b>										
(a) (i) No. of drinking water sources in tribal areas.			}	}	}	}				
(ii) No. of sources required ..							}	}	}	}
(b) (i) No. of Harijan Bastis having access to potable water.										
(ii) No. of Harijan Bastis without drinking water.										
<b>RURAL ELECTRIFICATION.</b>										
(a) No. of tribal villages electrified ..			}	}	}	}				
(b) No. of Harijan Bastis electrified ..										

Figures not available.

Figures not available.

TABLE II.  
DEVELOPMENT OF BACKWARD CLASSES.  
Fourth Plan Physical Programmes.

Category	Schemes.	Unit.	Achievement.									
			1969-70.		1970-71.		1971-72.		1972-73.		1973-74.	
			Scheduled Tribes.	Scheduled Castes.	Scheduled Tribes.	Scheduled Castes.	Scheduled Tribes.	Scheduled Castes.	Scheduled Tribes.	Scheduled Castes.	Scheduled Tribes.	Scheduled Castes.
1	2	3	4	5	6	7	8	9	10	11	12	13
EDUCATION.												
1	Tuition and Examination fee ..	Number of students.	Figures not available									
2	Scholarships and stipends ..	Ditto	10,506	15,590	11,266	16,880	12,578	19,513	19,330	24,495	20,330	21,903
3	Ashram Schools ..	Number of Schools.	33	32	34	32	35	32	38	32	38	32
4	Schools ..	}	158	76	162	76	164	76	168	78	168	78
5	Hostels ..											
6	Boarding Grants ..	}	No such scheme under plan.									
7	Social Education Centres ..											
8	Aid to Voluntary agencies for Educational Schemes. ..											
9	Mid-day Meals ..											
10	Other Educational Schemes ..											
ECONOMIC UPLIFT.												
11	Agriculture ..	}	No such scheme under Plan.									
12	Shifting Cultivation ..											
13	Social Conservation ..											
14	Minor Irrigation ..											
15	Animal Husbandry ..		Figures not available.									
16	Cottage Industries ..		Figures not available.									

- 17 Corporation .. .. No such scheme under Plan.  
 18 Rehabilitation and colonization.. No such scheme under Plan.  
 19 Communication .. .. Figures not available.

HEALTH, HOUSING AND OTHERS.

- 20 Housing .. .. No such scheme under Plan.  
 21 Drinking Water-supply .. Figures not available.

22	Medical and Public Health	..	Centres	45	..	45	..	45	..	45	..	45	..
23	Social and Cultural Activities	..	-	..	..	..	..	..	..	..	..	..	..
24	Aid to voluntary agencies	..	-	26	31	29	33	63	35	42	39	Grant not yet sanctioned.	Grant not yet sanctioned.

- 25 Progress and status, co-ordination call and field staff. No such scheme under Plan.

- 26 Legal aid - .. }  
 27 Miscellaneous .. .. } Figures not available.

TABLE III.  
DEVELOPMENT OF BACKWARD CLASSES.  
Fourth Plan Outlay and Expenditure.

(Rs. in lakhs.)

Serial no.	Programme.	Fourth Plan Outlay, 1969-74.	Expenditure.					Total.
			1969-70.	1970-71.	1971-72.	1972-73.	1973-74.	
1	2	3	4	5	6	7	8	9
<b>A. SCHEDULED TRIBES.</b>								
<b>I. EDUCATION.</b>								
1	Stipends to High School students ..	79.70	11.00	11.50	14.00	18.00	19.00	73.50
2	Stipends to students in Technical Institutions (Other than Post-matric stipends.)	17.80	1.608	2.00	1.783	4.00	4.00	13.391
3	Stipends to Primary and Middle School students.	25.25	3.00	3.25	3.254	6.00	6.00	21.504
4	Exemption from payment of tuition fees.	44.95	6.50	6.61	6.111	23.00	23.00	65.221
5	Reimbursement of examination fee income.	42.80	0.80	3.80	10.001	7.27	15.00	36.871
6	Book grant to school students ..	3.00	0.081	0.081	0.594	1.00	3.00	4.756
7	Residential Schools .. ..	28.05	1.79	2.44	3.27	5.60	7.60	20.70
8	Welfare Hostels for Adivasis Boys ..	26.30	0.678	0.73	2.00	5.00	5.00	13.408
9	Welfare Hostels for Adivasis girls ..	10.75	0.141	1.17	0.111	4.10	4.10	9.622
10	Opening of libraries in Middle and High School Hostels in Tribal Areas.	..	..	..	..	..	3.50	3.50
	TOTAL .. ..	2,78.60	25.598	31.581	41.24	73.97	90.20	262.473
<b>II. ECONOMIC UPLIFT.</b>								
11	Opening and maintenance of Graingolas	19.00	1.125	1.90	6.227	5.00	8.00	22.252
12	Subsidy to agriculturists for purchase of bullocks, seeds etc.	3.50	4.025	Nil	Nil	4.30	8.00	16.325
13	Subsidy for waste land reclamation ..	1.00	1.00	0.55	Nil	1.50	3.00	6.05
14	Subsidy for development of Horticulture	0.20	0.06	Nil	Nil	0.25	0.50	0.81
15	Subsidy for Cottage Industries ..	0.50	0.473	Nil	Nil	0.75	2.50	3.723
16	Distribution of improved Bucks and boars.	0.20	0.20	Nil	Nil	0.25	0.25	0.70
17	Distribution of improved poultry ..	0.20	0.20	Nil	Nil	0.25	1.25	1.70
18	Legal aid for restoration of lands of Scheduled Tribes.	6.20	Nil	Nil	Nil	1.00	1.50	2.50
19	Construction of hill-path ways etc. ..	5.00	0.20	0.20	0.20	1.50	3.00	5.10
20	Employment Oriented Scheme ..	..	..	..	0.705	5.00	10.00	15.705
21	Supply of Milch cow etc. ..	..	..	..	..	2.00	2.00	4.00
	TOTAL .. ..	35.80	7.283	2.65	7.132	21.80	40.00	78.865

TABLE III.—*contd*  
**DEVELOPMENT OF BACKWARD CLASSES.**  
**Fourth Plan Outlay and Expenditure.**

(Rs. in lakhs.)

Serial no.	Programme.	Fourth Plan Outlay, 1969-74.	Expenditure.					Total.
			1969-70.	1970-71.	1971-72.	1972-73.	1973-74.	
1	2	3	4	5	6	7	8	9
<b>III. HEALTH, HOUSING AND OTHER Schemes.</b>								
22	Drinking Water Supply .. ..	2.00	2.00	Nil	Nil	Nil	Nil	2.00
23	Medical aid .. ..	2.50	0.25	0.45	0.406	0.50	0.50	2.106
24	Grants-in-aid to non-official organisations and individuals.	1.50	0.30	0.20	0.216	0.30	0.30	1.316
25	Publication of books in Tribal language on Tribal culture.	0.25	0.05	0.03	0.01	0.05	0.20	0.331
26	Setting up of Directorate and an organisation for research and evaluation.	3.85	Nil	0.34	2.066	2.80	2.80	8.006
TOTAL .. ..		10.10	2.60	1.02	2.689	3.65	3.80	13.759
TOTAL—SCHEDULED TRIBES ..		3,24.50	35.481	35.251	50.945	99.42	13.400	3,55.097
<b>B. SCHEDULED CASTES.</b>								
<b>I. EDUCATION.</b>								
1	Stipend to High School students ..	75.85	10.45	11.00	14.00	18.00	18.50	71.95
2	Stipends to Primary and Middle School students.	25.00	3.90	4.34	4.50	5.35	5.35	23.44
3	Stipends to students in Technical Institution (Other than Post-matric stipends).	5.85	0.50	0.47	0.913	2.00	2.00	5.883
4	Re-imbusement grants to compensate for loss in examination fee income.	10.25	1.25	1.25	6.00	2.00	8.00	18.50
5	Exemption from payment of tuition fee	..	..	..	..	8.51	8.60	17.11
6	Book grants to School students ..	2.40	0.30	0.28	0.391	0.40	1.40	2.771
7	Residential Schools .. ..	39.80	2.866	4.02	3.98	6.10	8.10	25.066
8	Welfare Hostels for Harijan boys ..	24.35	0.884	1.05	0.641	4.20	4.20	10.975
9	Welfare Hostels for Harijan Girls ..	6.15	0.143	0.07	Nil	1.70	0.20	2.113
10	Opening of libraries in Middle and High School Hostels in Harijan localities.	..	..	..	..	..	2.00	2.00
TOTAL .. ..		1,89.65	20.293	22.48	30.425	48.26	58.35	179.808



TABLE III—contd.  
DEVELOPMENT OF BACKWARD CLASSES  
Fourth Plan Outlay and Expenditure.

(Rs. in lakh.)

Serial no.	Programme.	Fourth Plan Outlay, 1969-74.	Expenditure.					Total.
			1969-70.	1970-71.	1971-72.	1972-73.	1973-74.	
1	2	3	4	5	6	7	8	9
<b>II. ECONOMIC UPLIFT.</b>								
11	Subsidy to Harijan agriculturists for purchase of bullocks, seeds and agricultural implements and waste land reclamation.	12.70	1.817	1.84	3.85	3.85	5.50	16.857
12	Subsidy for Cottage Industries ..	5.00	0.55	0.52	0.55	0.55	2.00	4.17
13	Organisation of Co-operative Societies for Municipal and Conservatory staff.	3.20	0.26	0.14	0.223	0.60	0.60	1.823
14	Distribution of improved poultry ..	1.00	0.20	0.20	0.20	0.20	2.00	2.80
15	Employment-oriented scheme ..	..	..	..	..	..	2.00	2.00
	TOTAL .. ..	21.90	2.827	2.70	4.823	5.20	12.10	27.65
<b>III. HEALTH, HOUSING AND OTHER SCHEMES.</b>								
16	Drinking Water-Supply .. ..	14.75	1.238	1.07	0.243	3.00	0.65	6.201
17	Medical aid .. ..	3.35	0.50	0.45	0.50	0.50	0.50	2.45
18	Grants-in-aid to non-official institutions working for the Welfare of Scheduled Castes.	2.85	0.40	0.27	0.289	0.40	0.40	1.759
	TOTAL .. ..	20.95	2.138	1.79	1.032	3.90	1.55	10.41
	TOTAL—SCHEDULED CASTES ..	33.250	25.258	26.97	36.28	57.36	72.00	2,17,868
<b>C. OTHER BACKWARD CLASSES.</b>								
<b>I. EDUCATION.</b>								
1	Stipends to High School students ..	17.50	3.50	3.50	3.50	3.50	3.50	17.50
2	Stipends to Primary and Middle School students.	10.00	2.00	2.00	1.997	2.00	2.00	9.997
3	Stipends to students in Technical Institutions (Other than Post-matric stipends.)	2.15	0.35	0.50	0.50	0.50	0.50	2.35
4	Reimbursement grant to compensation for loss in examination fee income.	3.35	0.45	2.00	2.50	2.00	2.00	8.95
	TOTAL—OTHER BACKWARD CLASSES	33.00	6.30	8.00	8.497	8.00	8.00	38.797
	TOTAL—WELFARE OF BACKWARD CLASSES.	5,90.00	67.039	70.221	95.722	1,64.78	2,14.00	6,11.762

TABLE III—concl'd.  
DEVELOPMENT OF BACKWARD CLASSES.  
Fourth Plan Outlay and Expenditure.

(Rs. in lakhs.)

Serial no.	Programme.	Fourth Plan Outlay 1969-74.	Expenditure.					Total.
			1969-70.	1970-71.	1971-72.	1972-73.	1973-74.	
1	2	3	4	5	6	7	8	9
<b>SOCIAL WELFARE.</b>								
<b>CHILD WELFARE.</b>								
1	Bal Bhawan .. .. .	0.68	0.08	0.08	0.058	0.08	0.08	0.378
2	Shishu Bhawan.. .. .	0.65	0.05	Nil	Nil	0.05	0.05	0.15
3	Biklang Bhawan .. .. .	1.55	Nil	Nil	Nil	Nil	Nil	Nil
<b>WOMEN WELFARE.</b>								
4	Assistance to Bihar Branch of Moral and Social Hygiene Association.	1.64	0.072	0.04	0.07	0.10	0.10	0.382
<b>WELFARE OF PHYSICALLY AND METTALLY HANDICAPPED.</b>								
5	Development of Blind School at Patna	1.95	0.087	0.32	0.331	0.50	0.50	1.738
6	Maintenance of Deaf and Dumb School, Patna.	1.00	Nil	Nil	0.28	0.50	0.50	1.28
7	Scholarships to handicapped students ..	3.60	Nil	Nil	0.146	0.65	0.90	1.696
8	Workshop for Deaf, Dumb and Blind	..	..	..	..	..	0.70	0.70
<b>GRANT-IN-AID TO VOLUNTARY ORGANISATIONS.</b>								
9	Grant-in-aid to Deaf and Dumb Schools	1.68	0.048	0.05	0.12	0.12	0.12	0.458
<b>MISCELLANEOUS.</b>								
10	Survey of social and economic conditions of the handicapped.	..	..	..	..	..	0.30	0.30
<b>TOTAL .. .. .</b>		<b>12.75</b>	<b>0.337</b>	<b>0.49</b>	<b>1.005</b>	<b>2.00</b>	<b>3.25</b>	<b>7.082</b>

TABLE IV  
DEVELOPMENT OF BACKWARD CLASSES  
Fifth Plan Outlay proposed programmewise

Serial no.	Programme	Level of committed expenditure.	Fifth Plan outlay (1978-79).	Phasing				
				1974-75	1975-76	1976-77	1977-78	1978-79
1	2	3	4	5	6	7	8	9
<b>I. SCHEDULED TRIBES</b>								
<b>(a) EDUCATION</b>								
1	Stipends to High School students ..	4.75	111.00	20.00	21.50	22.05	23.15	24.30
2	Stipends to Primary and Middle School students.	1.50	48.00	7.60	8.60	9.60	10.60	11.60
3	Stipends to students in Technical Institutions.	1.25	23.75	4.25	4.50	4.75	5.00	5.25
4	Stipends for post-graduate and higher education.	..	2.50	0.50	0.50	0.50	0.50	0.50
5	Book grants to school students ..	..	18.75	3.25	3.50	3.75	4.00	4.25
6	Exemption from payment of tuition fee to Scheduled Tribe students reading in schools.	..	181.25	33.80	34.80	36.25	37.70	39.00
7	Opening of residential schools ..	1.525	71.95	9.35	12.50	14.25	16.70	19.15
8	Opening of hostels for Adibasi students	1.525	20.00	3.00	3.50	4.00	4.50	5.00
9	Reimbursement grants for School Examination Board and Universities to compensate for loss in examination fee income.	..	75.00	10.00	12.00	14.50	17.50	21.00
<b>TOTAL .. ..</b>		<b>10.55</b>	<b>552.20</b>	<b>91.75</b>	<b>1,01.10</b>	<b>1,09.65</b>	<b>1,19.65</b>	<b>1,30.05</b>
<b>(b) ECONOMIC UPLIFT</b>								
10	Subsidy for reclamation of waste land	..	5.00	1.00	1.00	1.00	1.00	1.00
11	Distribution of Milch Cattle ..	..	7.50	1.50	1.50	1.50	1.50	1.50
12	Grant of subsidy for development of horticulture in Tribal areas.	..	7.50	1.50	1.50	1.50	1.50	1.50
13	Distribution of improved poultry ..	..	5.00	1.00	1.00	1.00	1.00	1.00
14	Distribution of improved bucks and boars	..	2.50	0.50	0.50	0.50	0.50	0.50
15	Legal aid .. ..	..	7.50	1.50	1.50	1.50	1.50	1.50
16	Employment oriented scheme ..	2.50	10.00	2.00	2.00	2.00	2.00	2.00
17	Subsidy to Scheduled Tribe agriculturists for purchasing bullocks, seeds, agricultural implements, etc.	..	15.00	3.00	3.00	3.00	3.00	3.00
<b>TOTAL .. ..</b>		<b>2.50</b>	<b>60.00</b>	<b>12.00</b>	<b>12.00</b>	<b>12.00</b>	<b>12.00</b>	<b>12.00</b>

TABLE IV—contd.

## DEVELOPMENT OF BACKWARD CLASSES

Fifth Plan Outlay proposed programmewise

Serial no.	Programme.	Level of Fifth Plan		Phasing				
		committed expenditure.	Fifth Plan outlay (1978-79).	1974-75.	1975-76.	1976-77.	1977-78.	1978-79.
1	2	3	4	5	6	7	8	9
<b>(c) HEALTH, HOUSING AND OTHER SCHEMES</b>								
18	Medical aid including strengthening of existing Ayurvedic Dispensaries.	..	5.00	1.00	1.00	1.00	1.00	1.00
19	Grant-in-aid to non-official institutions and organisations working for the welfare of Scheduled Tribes.	..	5.00	1.00	1.00	1.00	1.00	1.00
20	Publication of books in Tribal language and culture.	..	1.25	0.25	0.25	0.25	0.25	0.25
21	Research, Planning and Evaluation ..	1.50	25.00	5.00	5.00	5.00	5.00	5.00
22	Special schemes for Paharias—							
	(1) Sabai grass cultivation and ropemaking.	..	40.00	8.00	8.00	8.00	8.00	8.00
	(2) 10 Primary Schools .. ..	..	5.00	1.00	1.00	1.00	1.00	1.00
	(3) Expansion of Paharia residential School	..	5.00	1.00	1.00	1.00	1.00	1.00
	(4) Grant to Bihar Tribal Co-operative Development Corporation.	..	10.00	2.00	2.00	2.00	2.00	2.00
	(5) Medical and for Paharias ..	..	2.00	0.40	0.40	0.40	0.40	0.40
	<b>TOTAL .. ..</b>	<b>1.50</b>	<b>98.25</b>	<b>19.65</b>	<b>19.65</b>	<b>19.65</b>	<b>19.65</b>	<b>19.65</b>
	<b>TOTAL FOR SCHEDULED TRIBES</b>	<b>14.55</b>	<b>7,10.45</b>	<b>1,23.40</b>	<b>1,32.75</b>	<b>1,41.30</b>	<b>1,51.30</b>	<b>1,61.70</b>
<b>SCHEDULED CASTES.</b>								
<b>(a) EDUCATION</b>								
1	Award of stipends to Scheduled Castes students reading in high schools.	4.625	96.25	18.75	19.00	19.25	19.50	19.75
2	Stipends to Primary and Middle School students.	1.337	40.75	7.65	7.90	8.15	8.40	8.65
3	Stipends for students in Technical Institutions (other than Post-matric).	0.50	13.75	2.25	2.50	2.75	3.00	3.25
4	Stipends to Post-graduate and higher education.	..	2.50	0.50	0.50	0.50	0.50	0.50
5	Reimbursement grants to Universities/ Board to compensate loss in examination fee income.	..	70.00	10.00	12.00	14.00	16.00	18.00
6	Exemption from payment of tuition fee in schools.	..	70.00	10.00	12.00	14.00	16.00	18.00
7	Book grants to school students ..	..	10.00	1.50	1.75	2.00	2.25	2.50
8	Opening of residential schools for Scheduled Caste students.	1.65	54.05	8.15	9.45	10.80	12.15	13.50
9	Opening of hostels for Scheduled Caste students.	0.675	21.75	3.45	3.90	4.35	4.80	5.25
	<b>TOTAL .. ..</b>	<b>8.787</b>	<b>3,79.05</b>	<b>62.25</b>	<b>69.00</b>	<b>75.80</b>	<b>82.60</b>	<b>89.40</b>
<b>(b) ECONOMIC UPLIFT.</b>								
10	Organisation of Co-operative Societies for municipal and conservatory staff.	..	20.00	4.00	4.00	4.00	4.00	4.00
11	Subsidy to Scheduled Caste Agriculturists for purchasing bullocks, seeds, etc.	..	10.00	2.00	2.00	2.00	2.00	2.00
12	Employment oriented scheme ..	..	20.00	4.00	4.00	4.00	4.00	4.00
	<b>TOTAL .. ..</b>	<b>..</b>	<b>50.00</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>

TABLE IV—concl'd.

## DEVELOPMENT OF BACKWARD CLASSES

Fifth Plan Outlay proposed programmewise

Serial no.	Programme.	Level of Fifth Plan committed expenditure. (1978-79)	Phasing						
			1974-75.	1975-76.	1976-77.	1977-78.	1978-79.		
1	2	3	4	5	6	7	8	9	
<b>(c) HEALTH, HOUSING AND OTHER SCHEMES.</b>									
13	Medical aid .. .. .	..	5.00	1.00	1.00	1.00	1.00	1.00	
14	Grants-in-aid to non-official organisations	..	5.00	1.00	1.00	1.00	1.00	1.00	
15	Publication of books, magazine, etc. ..	..	2.50	0.50	0.50	0.50	0.50	0.50	
16	Grant to boys and girls of Savarn Hindus for marriage with Harijan girls and boys.	..	0.50	0.10	0.10	0.10	0.10	0.10	
TOTAL .. .. .		..	13.00	2.60	2.60	2.60	2.60	2.60	
TOTAL FOR SCHEDULED CASTES			8.787	4,42.05	74.85	81.60	88.40	95.20	1,02.00
<b>OTHER BACKWARD CLASSES</b>									
1	Award of stipends to High School students.	0.875	20.00	4.00	4.00	4.00	4.00	4.00	
2	Award of stipends to Primary and Middle School students.	0.50	12.50	2.50	2.50	2.50	2.50	2.50	
3	Award of stipends in Technical Institutions (other than Post-Matric stipends).	0.125	3.00	0.60	0.60	0.60	0.60	0.60	
4	Reimbursement grant to Universities/Board to compensate loss in Examination fee income.	..	15.00	3.00	3.00	3.00	3.00	3.00	
TOTAL—OTHER BACKWARD CLASSES			1.50	50.50	10.10	10.10	10.10	10.10	10.10
GRAND TOTAL—FOR SCHEDULED TRIBES, SCHEDULED CASTES AND OTHER BACKWARD CLASSES.			24.837	12,03.00	2,08.35	2,24.45	2,39.80	2,56.60	2,73.80
<b>SOCIAL WELFARE</b>									
1	Opening and maintenance of Schools for blind.	..	29.73	8.67	14.52	3.52	1.51	1.51	
2	Strengthening and maintenance of Deaf and Dumb School.	..	9.97	4.50	1.26	1.57	1.37	1.37	
3	Award of stipends to handicapped students in schools and colleges.	..	6.00	1.00	1.10	1.50	1.50	1.50	
4	Workshop for Deaf, Dumb and Blind..	..	2.00	0.40	0.40	0.40	0.40	0.40	
5	Development of After-care Home for Women at Patna.	..	6.80	2.20	1.15	1.15	1.15	1.15	
6	Grant-in-aid to voluntary organisation of institutions, working for the welfare of women, children to handicapped persons.	..	7.00	1.40	1.40	1.40	1.40	1.40	
7	Home for Homeless .. .. .	..	7.50	1.50	1.50	1.50	1.50	1.50	
8	Strengthening of Beggars Home at Patna.	..	3.00	0.60	0.60	0.60	0.60	0.60	
<b>MINIMUM NEEDS PROGRAMMES.</b>									
9	Special Nutrition Programme ..	..	200.00	40.00	40.00	40.00	40.00	40.00	
TOTAL—FOR SOCIAL WELFARE SCHEMES.			0.82	2,72.00	60.27	62.08	65.33	49.23	49.33

## CHAPTER XXV

### CRAFTSMAN TRAINING AND LABOUR WELFARE.

Maintenance of a steady supply of trained and skilled workers is an essential prerequisite for the success of industries programmes. Accordingly considerable emphasis was given in the previous plans to the training of craftsmen. Till the beginning of the Fourth Five-Year Plan, a rapid expansion of the training programme took place resulting in qualitative deterioration of the training, because inputs in the shape of trained instructors, equipment, building, etc. could not be provided keeping in pace with the expansions. The emphasis in the Fourth Plan, therefore, has been on various aspects of consolidations and making up deficiencies in building and equipment. This emphasis will continue in the Fifth Five-Year Plan also. An outlay of Rs. 205 lakhs has been proposed for this sector.

#### Spill-over Schemes.

2. The likely spill-over schemes are in respect of land acquisition, construction of buildings for hostels and the I.T.Is. and purchase of machineries and equipments to meet the deficiencies. The proposal with regard to each are as follows:—

- (a) Out of 30 I.T.Is, land acquisition for the seven I.T.Is, namely I.T.I., Begusarai, Sitamarhi, Birpur, Ghoghardiha, Buxar, Hathwa, Women I.T.I., Patna has still not been completed. It is expected that the land acquisition work in some I.T.Is. other than the above where land has been partially acquired will be completed during the Fourth Five-Year Plan, and it may be possible to complete land acquisition work in one more I.T.I. during current financial year. As such provision for land acquisition for the remaining six I.T.Is. has been made in the Fifth Five-Year Plan and an amount of Rs. 10 lakhs has been provided as spill-over for this purpose.
- (b) The building construction work is in progress in a few I.T.Is. but the construction work has not yet been started in the I.T.Is at Begusarai, Sitamarhi, Ghoghardiha, Buxar, Birpur, Hathwa and I.T.Is for women at Patna. An amount of Rs. 50 lakhs has been provided for the purpose.
- (c) Construction of hostel building is also in progress in a few places but the construction work is yet to be taken at 13 I.T.Is. This work will have to be carried over in the Fifth Five-Year Plan and an amount of Rs. 40 lakhs has been provided as spill-over for this purpose.
- (d) An amount of Rs. 5 lakhs has been provided as spill-over schemes for purchase of machines and equipment.

#### Apprenticeship Training Scheme.

3. The Apprentices Act, 1961 is being implemented in the State from the year 1963 and 201 categories of industries and 61 trades have already been notified under the Act, for implementation of Apprenticeship Training Programme. Government of India is proposing to expand the Apprenticeship Training Programme in several new trades and new industries are also likely to be notified under the Act. The training of engineering diploma holders and engineering graduates is expected to come within the purview of the Apprentices Act very shortly, and as such it is hoped that there will be substantial increase in the number of training places in the Fifth Five-Year Plan. The objective of the Apprentices Act is to provide the skilled manpower to meet the needs of industries and engagement of apprentices by the establishments is

a statutory obligation. In this background the need for paying special attention for development of the programme needs hardly any special emphasis. A correct statement about the estimate of the additional number of apprentices for the Fifth Five-Year Plan could be made after the names of new trades and new industries likely to be covered under the Act is known. It may, however be mentioned that about 4,500 apprenticeship position have been located so far as against which about 3,200 apprentices are undergoing training. It is expected that this number will go up to by the end of the Fifth Five-Year Plan. Assuming an increase of 30 per cent in the number of Apprenticeship positions and 80 per cent coverage it is estimated that 1,000 additional apprentices will be undergoing training by the end of the Fifth Five-Year Plan. Keeping this as basis an estimate has been prepared about the expenditure likely to be incurred on the various schemes under this head.

4. An amount of Rs. 10 per apprentice per month has been sanctioned for imparting related instructions to the apprentices. A target of 250 additional apprentices in each of the four year of the Fifth Five-Year Plan may be assumed. With this phasing, it is estimated that a sum of Rs. 4 lakhs will be needed on arrangement of related instructions.

5. It is estimated that about 200 apprentices of fresher category may be engaged by the establishments employing less than 500 workers for whom half the expenditure is to be incurred by the State Government. According to the present roll, the State Government has to incur an expenditure of Rs. 53 per apprentice per month on this account. The total amount required for this purpose comes to Rs. 4 lakhs.

6. It is estimated that out of the additional apprentices about 750 apprentices may appear at the All-India Trade Test during the plan period. The rates of expenditure on trade test is Rs. 14 per apprentice. A sum of Rs. 0.12 lakh has been provided for this purpose.

7. The qualitative improvement of the Apprenticeship Training Programme would mean upgrading quality of instructional staff, supply of instructional training materials and visual aids etc. for which a sum of Rs. 2 lakhs has been provided.

8. There is no proper machinery so far of following up of employment position of passed out apprentices as also to consider changes in the existing programme based on the employment potential. It is necessary that suitable machinery be established for this purpose. A sum of Rs. 0.25 lakh has been provided for this purpose.

9. In order to cope up with the existing volume of work as also the tremendous increase in volume of work involved due to expansion of the scheme in the Fifth Five-Year Plan, it is absolutely essential that the existing apprenticeship organisation is suitably strengthened. It is also necessary that a suitable follow up machinery for inspecting the arrangement of training of the shop floor as also to provide guidance to employers in such matters is established. A provision of Rs. 5 lakhs is being proposed for this.

Thus, estimated expenditure on the various schemes in connection with the implementation of the Apprenticeship Training Programme come to Rs. 15 lakhs.

#### **Qualitative improvement of Training Programme in the I.T.I.**

10. This includes *inter-alia* modernisation of machinery and equipment and replacement of machineries which have outlived their life. It is also proposed to expand the facilities of library, training materials and visual aids in the I.T.I.s. A provision of Rs. 15 lakhs has been proposed for this.

### Construction of Staff Quarters.

11. Difficulties are being experienced in the proper supervision of management of the I.T.I. due to lack of staff quarters for essential staff/like Superintendent, Assistant Superintendent, Store-keeper, Cashier and Darwan, etc. An outlay of Rs. 5 lakhs is proposed for this even though the requirement of funds is more.

12. In the context of industrial development and changing technology, there has been a rapid change in the occupation pattern of the industries. It has been felt that some trades have become unpopular and the employment potential in other trades has tremendously gone up. It is, therefore, necessary to diversify and rationalise the training programmes in such a manner as to meet the real needs of the industries. There has been enormous activities in the field of chemical engineering, electronic engineering, printing technology and hotel and catering industry. It is expected that there will be further progress in these activities in the Fifth Five-Year Plan. With this view it has been proposed to start new trades in the above branches in few I.T.Is. of the State. The expansion of facilities in these trades will also provide opportunity for basic training under the Apprentices Act, which is a statutory obligation of the State Government. A sum of Rs. 25 lakhs has been provided for this purpose.

13. At present stipend is paid to 33½ per cent of the tainees at the rate of Rs. 25 per month. This was fixed several years ago and is very small in the context of present day prices. Considering that trainees coming in the I.T.Is. are mostly from the poorer sections of the society, it is proposed to increase the rates of stipends from Rs. 25 to Rs. 40 per month. It is also proposed to increase the quantum from 33½ per cent to 50 per cent. The number of seats sanctioned in the I.T.Is. is about 13,000 and as such if stipends are paid to about 6,500 boys at the rate of Rs. 40 per month the amount required for augmentation comes to about Rs. 100 lakhs. The scheme will be executed in a phased manner and a provision of Rs. 20 lakhs is proposed.

14. To summarise, it is proposed to take up during the Fifth Five-Year Plan the following schemes with the outlay shown against them :—

	(Rs. in lakhs)
(1) Spill-over Scheme .. .. .	1,05
(2) Apprenticeship Training Scheme .. .. .	15
(3) Quality Improvement Training Programme .. .. .	15
(4) Staff quarters .. .. .	5
(5) Strengthening of organisation for institutional training programme.	5
(6) Diversification and rationalisation of training programmes	25
(7) Establishment of Training Institute for Instructors .. .. .	5
(8) Establishment of maintenance workshop .. .. .	5
(9) Enhancement of stipends .. .. .	20
(10) Establishment of Women I. T. I. at Ranchi .. .. .	5
Total .. .. .	2,05

15. The work of labour welfare administration is intimately connected with the upliftment of the standard of living of the working class in general. To achieve the objective both the State and the Central Government have created a large number



of labour laws so that the rights and privileges of the workers are not merely protected but further benefits accrue to the working class. The existing technical and conciliation wings are inadequate to cope with the great volume of work caused by the emergence and expansion of industries and also implementation of numerous labour laws. As such most of the schemes under the labour welfare administration are related to creation of more posts to ensure more rigid and better enforcement of the labour laws. An outlay of Rs. 50 lakhs is proposed for these in the Fifth Plan.

The schemes proposed to be included under the Programme of labour welfare are listed below :—

	<i>(Rs. in lakhs)</i>
(1) Combined Building at Jamshedpur, Ranchi, Bokaro and Muzaffarpur.	20
(2) Office Building at Begusarai, Dalmianagar, Giridih and Bihar-sharif, Hazaribagh and Darbhanga.	12
(3) Construction and furnishing of labour Welfare Centres at Bokaro, Ranchi and Adityapur.	9
(4) Strengthening of administrative machinery—	
(i) Strengthening of industrialisation machinery ..	1
(ii) Strengthening of Inspectorate machinery .. ..	2
(iii) Strengthening of administrative machinery of Welfare Centre.	2
(iv) Organisation of Safety Cell .. .. .	1
(v) Improvement of Labour Statistics .. ..	1
(vi) Improvement as per suggestion of I. R. C. and its implementation.	2
Total .. .. .	50

16. For the Employees State Insurance Scheme and Employment Scheme provisions of Rs. 5 lakhs and Rs. 10 lakhs, respectively are proposed.

## CHAPTER XXVI

### STATISTICS

A good statistical system is an essential pre-requisite not only for administrative and economic intelligence but also for framing policies and programmes. In the context of economic and social planning, it becomes, all the more important and is needed at all the three stages of plan formulation, implementation and evaluation.

With a view to meeting the requirements of economic and social planning, therefore, State Government set up in September, 1949 a Central Bureau of Economics and Statistics under the administrative control of Finance Department. This Bureau was entrusted with the responsibilities of advising State Government on all statistical and economic matters, co-ordinating all statistical activities of the different departments, maintaining liaison in statistical matters between Central Government on the one hand and the State Government on the other, reviewing rationalising and standardising methods of statistical enquiries, collection, processing and analysis of statistical data and preparation of periodical reports relating to the activities of the various departments of the State Government. After 1949 a number of steps were taken to strengthen the Directorate. These included transfer to Directorate in 1953 of jail statistics, in 1954 of vital, medical and price statistics and designation of Director, Central Bureau of Economics and Statistics as Superintendent, Agricultural Statistics with control over his headquarters staff, participation on 1956 by the Directorate in the national sample surveys, establishment in 1957 of district statistical offices, complete merger in 1960 of the agricultural statistics wing with the Directorate and entrustment in 1964 of the work of evaluation. In 1968, the Directorate of Statistics was transferred from the administrative control of the Finance Department to that of the Planning Department and it was rechristened as Directorate of Statistics and Evaluation.

Presently, work in the Directorate is organised in agricultural, vital, medical, jail, price, national sample surveys, State income, research, evaluation and other miscellaneous statistical wings. The agricultural statistics wing collects data on rainfall, land utilisation, crop forecasts, area, production and yield rates of different crops. The vital statistics wing collects data on births and deaths. The price statistics wing collects various types of prices and constructs a cost of living index for industrial workers at seven industrial centres and a monthly index of wholesale price of 21 agricultural commodities. The national sample survey and research sections collect data and present analysis on the various socio-economic aspects of the State's economy. The State income section estimates income of the State and districts from various sources. The evaluation wing studies impact of selected plan programmes on the different aspects of the State's economy.

2. *Achievements of the previous plans.*—In the first plan, no scheme for statistical development was taken up. In the second plan, a sum of Rs. 35 lakhs was spent on various schemes of statistical development. During this period the Directorate of Statistics was strengthened by appointment of a Senior Deputy Director at the headquarters, District Statistical Officers in all the 17 districts and Junior Statistical Supervisors in the community development blocks. The Directorate also participated in the National Sample Surveys through a matching sample. In the third plan period, a sum of only Rs. 3 lakhs was spent. The meagre outlay on schemes of statistical development was due to national emergencies and paucity of resources. In the *ad hoc* annual plan period, 1966—69, a sum of Rs. 10 lakhs was spent for improvement of statistics. The major share in this was that of vital statistics.

In the fourth plan period, a sum of Rs. 20 lakhs was provided for the various statistical schemes. The actual expenditure is anticipated to be Rs. 7.6 lakhs. The shortfall is mainly due to non-clearance of most of the schemes in the earlier years

of the plan period. The schemes that have been implemented relate to training of statistical personnel, strengthening of mechanical tabulation unit, improvement of State income estimates, housing statistics, survey of goods traffic, survey of distributive trade, creation of a unit of resource statistics and municipal year book.

3. *Present shortcomings.*—There are four main shortcomings in the present statistical work of the Directorate. These relate to gaps in coverage of statistics, absence of technical studies supporting plan postulates, lack of timeliness in receipt and release of field data and imperfect quality control in the statistics collected. The first shortcoming arises partly out of the constitutional division of responsibilities under which certain subjects, like the Census, mineral oils, export and import trade, railways, national highways and water ways, airways, postal and tele-communications, banking and insurance, are exclusively looked after by the Central Government and certain other subject, such as agriculture, animal husbandry, forests, fisheries, irrigation, industries and mines (subject to control by the Central Government) roads, bridges and ferries, education and health, are looked after by the State Government. There are certain other subjects, such as economic and social planning, electricity, factories, essential industries and commodities, infectious diseases, training and welfare of labour and vital and other statistics which are the concurrent jurisdiction of both the Central and State Governments. Naturally, therefore, State Government does not collect data on subjects which are not its responsibilities. Part of the first and the entire second shortcoming arise out of inadequate appreciation of the role of statistics in shaping policies and programmes. The third shortcoming arises principally from the fact that the Directorate does not have a primary reporting system of its own and the fourth one from the gaps in the chain and level of supervisory staff of the Directorate.

4. *Objectives of the Fifth Plan.*—The main objectives of statistical schemes in the Fifth Plan, therefore, have to be removal of the shortcomings in the existing statistical system. In particular, attention will have to be given to the following aspects :—

- (1) to fill in the gaps in the existing system of data.
- (2) to initiate technical studies of the type needed for planning and other purposes.
- (3) to ensure timeliness in the receipt and release of field data.
- (4) to ensure quality control in the collection of various statistics.

(1) *Measures to fill in the gaps in existing system of data.*—The gaps in the existing system of data are too numerous to be filled in quickly or easily. There are also constraint of resources. An attempt, therefore, has been made to identify and fill in only the most important of these gaps. These relate to five fields, viz., (a) agriculture, (b) industry, (c) unorganised sectors, like small-scale industries, trade, transport, construction and professional services, (d) employment and (e) vital statistics. Accordingly, five schemes have been drawn up for filling in the gaps. The scheme are (a) a farm management survey unit (Rs. 12.57 lakhs), (b) a unit for construction of a State index of industrial production (Rs. 3.74 lakhs), (c) a unit for economic censuses and surveys (Rs. 18.26 lakhs), (d) a unit for assessment of the impact on employment of certain plan projects (Rs. 8.49 lakhs) and (e) strengthening of the vital statistics work in urban areas (Rs. 7.15 lakhs). Considering the paucity of resources, the scheme for assessment of the impact on employment of certain plan projects has been dropped. The study may be taken up as a part of evaluation studies, if approved by the State Evaluation Committee.

(2) *Technical studies for Planning and other purposes.*—Some of the basic parameters for State planning, such as savings and capital formation, etc. are not known. With a view to filling in this gap, a scheme has been drawn up for estimating savings and capital formation in the State. It is estimated to cost Rs. 6.93 lakhs.

(3) *Measures to ensure timeliness in data.*—The Directorate is not able to ensure timeliness in receipt and release of data mainly because (a) it does not have a primary reporting agency of its own, (b) there is no means of quick transport or communication available to its field staff and (c) its publications are not brought out in time by the State Government Press. Accordingly, five schemes were drawn up for attending to these deficiencies. These were (a) appointment of about 7,250 additional Karamcharis (Rs. 14.22 crores), (b) provision of a jeep to the District Statistical Offices (Rs. 30.94 lakhs), (c) provision of telephone facilities to the District Statistical Offices (Rs. 0.87 lakhs), (d) establishment of a Printing Press (Rs. 4.44 lakhs) and (e) establishment of Data Bank (Rs. 60.29 lakhs). On account of paucity of funds, however, only the schemes relating to establishment of a Data Bank and a Printing Press have been included in the fifth plan proposals.

(4) *Measures to ensure quality control in the statistics collected.*—The Directorate is not able to ensure quality in its data principally because there are gaps in its supervisory chain and lack of proper inservice training facilities to its staff. With a view to removing the deficiencies in its supervisory chain, scheme of strengthening of statistical machinery at block (cost Rs. 91.11 lakhs), subdivisional (Rs. 199.80 lakhs), district (Rs. 9.68 lakhs), regional (Rs. 23.23 lakhs) and headquarters (Rs. 5.34 lakhs) levels had been drawn up. On account of paucity of resources, however, only the schemes relating to strengthening of statistical machinery at the block level (Rs. 84.08 lakhs) and training of statistical personnel (Rs. 2.53 lakhs) have been included in the proposals.

The schemes included in the fifth plan proposals have been drawn up in accordance with the guidelines issued by the Sub-Committees of the Central and State Statisticians. These Sub-Committees were constituted by the Central Statistical Organisation after meetings of the State Directors of Statistics held in Delhi in September, 1972 and January, 1973. The meetings of the State Directors of Statistics categorised the various schemes into groups of core schemes of national and state importance and other schemes of state importance. Accordingly, the nine schemes that have been included in the fifth plan proposals are described below in order of their importance :—

(A) *Core schemes of national importance :*

	<i>Rs. in lakhs.</i>
(i) Construction of a State index of industrial production..	3.74
(ii) Creation of a unit for economic census and surveys ..	18.26
(iii) Establishment of a unit for estimation of savings and capital formation in the State.	6.93
(iv) Establishment of a Data Bank .. ..	60.30
(v) Establishment of a printing press .. ..	4.44

(B) *Core schemes of State importance :*

(vi) Training of statistical personnel .. ..	2.53
(vii) Strengthening of statistical machinery .. ..	84.08

(C) *Other schemes of State importance :*

(viii) Strengthening of vital statistics work in urban areas ..	7.15
(ix) Establishment of a unit on farm management surveys ..	12.57
Total ..	200.00

The outlay of Rs. 200 lakhs proposed to be spent in the fifth plan period will be phased in the manner indicated below :—

Year			Rs. in lakhs
1974-75	..	..	29.56
1975-76	..	..	79.72
1976-77	..	..	29.98
1977-78	..	..	30.24
1978-79	..	..	30.50
			200.00
		Total	.. 200.00

As a result of the implementation of the various schemes in the fifth plan period the Directorate will be able to appoint 547 fresh hands. Of this, 515 would be the technical staff and 32 non-technical staff. The technical staff would include 3 Deputy Directors, 5 Assistant Directors, 9 Statistical Officers, 15 Supervisors, 22 Senior Statistical Assistants, 434 Junior Statistical Assistants and 27 Compilers. The non-technical staff would include 3 Stenographers, 5 Steno.-typists and 24 Orderlies/Peons.

Brief details in respect of various schemes are given separately in an Annexure.

## ANNEXURE

## Summary Statement of Fifth Plan Proposal for Statistical Schemes of Bihar

Name of the scheme.	Whether continuing scheme of Fourth Plan yet to be completed, or scheme of repetative nature to be executed after every three/five years, or new scheme for Fifth Plan.	Object of the scheme	Brief details of design, other technical details, phasing and coverage.
1	2	3	4
<b>I. CORE SCHEMES OF NATIONAL IMPORTANCE:—</b>			
1. Construction of a State index of industrial production.	New scheme for the Fifth Plan.	An index of industrial production at the national level is available. But there is no such index at the State level. It is therefore proposed to create a unit in the Directorate for constructing a State index of industrial production. This will help assess trend of industrial production in the State.	The data published in 'Monthly Statistics of the Production of Selected Industries of India' and "Annual Survey of Industries" will be utilised for this work. Arrangements will also be made for collection of data of various industrial products in the State through the Chief Inspector of Factories. The coverage of industries and periodicity for collection and compilation of industrial data will have to be decided on considerations of availability of data.
2. Creation of a unit for economic census and surveys.	New scheme for the Fifth Plan.	There is little data on capital and labour employed, sources of finance, operational costs, factor payments and operating surplus flowing to the economy from unregistered, unorganised small-scale industries, trade, transport, construction, professional and other services. It is, therefore, proposed to create a unit for conducting an economic census once in five years of these activities and also detailed sample surveys for one or more of these activities during the four inter-censal years.	A list of all non-agricultural activities and activities carried out in non-household establishments and household establishments run at the residential places will be prepared. The first stage of census may consist of listing of all household, non-household establishments and preparing the necessary sampling frame. In the second stage, more detailed information will be collected about one of the groups of the economic activities covered under the economic census during the inter-censal years through a larger sample.
3. Establishment of a unit for estimation of savings and capital formation in the State.	New scheme for the Fifth Plan.	The data relating to income at the State, regional/district and per capita levels, savings and investments, etc., are important parameters for planning. Unfortunately, except the estimation of State and per capita incomes, none of the other parameters, required for planning is available in the State. It is, therefore, proposed to create a unit in the Directorate for estimating, among others, the savings and investments in the State.	The estimates of savings and capital formation in the State will be prepared for each of the three sectors of the Government, the corporate and the household enterprises. The estimation procedure for savings and investments in the State may be either through (a) the product or commodity flow approach or (b) the expenditure approach or (c) the savings or flow-of-funds approach or (d) through a combination of these three approaches. The work may involve economic classification of State Government budget, analysis of companies' balance-sheets and expenditure data of the household.

## ANNEXURE

## Summary Statement of Fifth Plan Proposals for statistical Schemes of Bihar

Name of the scheme.	Whether continuing scheme of Fourth Plan yet to be completed or scheme of repetitive nature to be executed after every three/five years, or new scheme for Fifth Plan.	Subject of the scheme.	Brief details of design, others technical details, phasing and coverage.
1	2	3	4
Establishment of a Data Bank.	New scheme for the Fifth Plan.	The Directorate presently collects a large mass of data. The system of collection, storage, processing and analysis of data, however, suffers from a number of deficiencies because it is based on primitive techniques. It is, therefore, proposed to introduce electronic data procuring devices and set up a computerised data bank in the Directorate to facilitate permanent storage of large volumes of data in a readily accessible form.	The data bank at the State level will be a part of the integrated data bank at the national level. It will collect data from the districts, or from units below the level of the districts. Similarly, it will pass on data to the data bank at the national level or data banks in other States. It will also aim at integrating data from several sources, secure comparability and undertake the requisite processing to meet customer needs.
5. Establishment of a Printing Press.	New scheme for the Fifth Plan.	The publications of the Directorate are delayed considerably due to pre occupations of the Government Printing Press with more urgent works of other departments. Since statistical data should be served hot, it is proposed to set up a small printing press in the Directorate so that statistical data are brought out in time.	A small Printing machine with auxiliary equipments will be set up and supporting machine operators will be appointed.
II. CORE SCHEMES IN STATE SECTOR :-			
6. Training of statistical personnel.	Continuing scheme of Fourth Plan.	A large majority of staff of the Directorate do not have training in statistics. This adversely affects their quality of work. It is necessary, therefore, to train them up so that they are able to discharge their responsibilities creditably.	The training is proposed to be organised at two levels. One of these will be meant for the higher levels of the statistical workers and the other one will be meant for the lower categories. The higher level training will include deputation of officers and other categories of statistical staff to institutions outside the State, the period of training varying from three to twelve months. Under the training programme for lower level of statistical workers training will be given either at the State headquarters or at district/subdivision/block headquarters. The State headquarters training will be for Junior/Senior Statistical Assistants and may extend over a month. The training at district or lower levels will be for primary reporters and may extend to 2 or 3 days.

## ANNEXURE

## Summary Statement of Fifth Plan Proposal for Statistical Schemes of Bihar.

Name of the scheme.	Whether continuing scheme of Fourth Plan yet to be completed or scheme of repetitive nature to be executed after every three/five years, or new scheme for Fifth Plan.	Subject of the scheme.	Brief details of design, other technical details, phasing and coverage.
1	2	3	4
7. Strengthening of Statistical machinery.	New scheme for the Fifth Plan.	The Directorate is not able to ensure timeliness and quality control in its collection and presentation of data. This is principally because of the fact that it does not have a primary reporting system of its own and there are gaps in the chain of supervisory staff. It is proposed therefore, to have a scheme for strengthening of statistical personnel at the block level so that one J. S. S. becomes available in each block.	On account of paucity of resources, however, only the scheme relating to strengthening of statistical personnel at the block level will be taken up. Subsequently, as funds become available strengthening at other levels may be taken up.
<b>III OTHER SCHEMES OF STATE IMPORTANCE.</b>			
8. Strengthening of vital statistics work in urban areas.	New schemes for the Fifth Plan.	Data on births and deaths events are important for estimating population in inter-censal years. With a view to recording of such events, staff have to be maintained at various places. Under the scheme, it is proposed to appoint fresh staff in certain new towns or old towns which have changed their character.	Under the scheme, 2 S. S. A. will be appointed and posted in such of the 2 municipal areas the population of which has increased from 30 thousand to lakh; 16 J. S. A. will be appointed and posted in such of the municipal areas as have a population of more than 30 thousand; 11 Compilers will be appointed in such of the municipal areas as have a population between 20 and 30 thousand.
9. Establishment of Farm Management Survey Unit.	New scheme for the Fifth Plan.	At present there is no data relating to the cost of cultivation of different crops and the various inputs applied to them, or the methods of farming, traditional or improved followed by the farmers. The data on nature and frequency of agricultural employment and production of agricultural by-products, like straw, sticks, husk and bran, etc., are not available. It is proposed to collect all these informations through the proposed Farm Management Survey Unit.	While collecting data on the various aspects of farm management, due representation will be ensured to the different agro-climatic regions, classes of farmers, size of their holdings, agricultural seasons and crops and certain other categories of the rural classes, such as, artisans, etc. The design of the survey will be a multi-stage stratified one to ensure proper representation of cultivators.



## CHAPTER XXVII

### EVALUATION

Evaluation is an integral part of the planning process. It helps not only in location of the difficulties encountered in the process of implementation of plan programmes but also in highlighting the reasons for achievement of phenomenal successes, if any, in the same. It is thus possible through evaluation to improve both formulation and execution of plan programmes.

A small evaluation set-up was established in the State in the Planning Department in 1960. It consisted of a Director, an Evaluation Officer, a Finance Officer, 4 Investigators and a few other non-technical staff. In July, 1964, this organisation was merged with the Directorate of Statistics. During the Fourth Plan period, provision of Rs. 5 lakhs was made for strengthening the evaluation machinery. The actual expenditure, however, is estimated at Rs. 7.82 lakhs. During this period, 4 regional evaluation units were set-up. In addition, a Field Task Force was also set-up. Besides the headquarters organisation was also strengthened by appointment of an Additional Deputy Director, 3 Additional Assistant Directors, 3 Research Assistants, 6 Investigators, 6 Junior Statistical Supervisors and 4 Compillers.

Till the end of the Fourth Plan period, as many as 10 evaluation studies were completed, 3 were in progress and 4 were to be taken up. The evaluation studies completed included evaluation of the extent of utilisation of irrigation potential, adoption and use of improved agricultural practices, facilities of primary education, impact of plan programmes on the levels of consumption, living and employment, lac cultivation and its impact on tribal economy, Small scale weaving industries in Biharsharif, Nath Nagar and Madhubani blocks, High Yielding Varieties Programme, Kharif and Rabi, and basic literature scheme. The evaluation studies in progress included the intensive cattle development programme, family planning programme and impact of nationalisation of commercial banks on rural economy of the State. The evaluation studies approved but not yet taken up included evaluation of intensive agricultural areas development programme, impact of rural electrification programme, achievements of tasar development scheme and seed multiplication farms.

It has been noticed that the existing evaluation machinery has not been able to complete not more than two evaluation studies in a year. The demand for taking up more evaluation studies on the other hand has been increasing. With a view to increasing the number of evaluation studies per year as also for streamlining the existing organisation, it is proposed to further strengthen the evaluation organisation in the Fifth Plan period. The proposal for strengthening the evaluation machinery includes appointment of a Joint Director, one Assistant Director, one Statistical Officer, 5 Research Assistants, 6 Investigators, 5 Junior Statistical Supervisors, 3 Compilers. In addition, one Stenographer, one Steno.-Typist, 2 Clerks and 5 Peons will also be appointed. With the implementation of these proposals, 5 regional evaluation units will be functioning in the State at the end of Fifth Plan period. The headquarters organisation will also be strengthened considerably.

The total cost of strengthening the evaluation organisation during the Fifth Plan period is estimated at Rs. 10 lakhs. The details of this expenditure are given in a separate statement attached.

In the Fifth Plan period, a large number of evaluation studies pertaining to the various fields of development activities, such as agriculture, soil conservation, minor and other irrigation, power, industry, transport, education, health, housing and welfare programmes, will be taken up.

## STRENGTHENING OF EVALUATION UNIT OF THE DIRECTORATE OF STATISTICS AND EVALUATION IN THE FIFTH FIVE-YEAR PLAN PERIOD.

Estimated cost for one year (1974-75)

Designation	Pay scale	No.	P.O.	P. R.	H.R.A. C.A.	T.A.	O.A.	C.N.C.- R.	C.N.C.- (N.R.).	Total
1	2	3	4	5	6	7	8	9	10	11
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<b>A. Headquarters—</b>										
1. Joint Director 1×3×1,410 1×12×250	.. Rs. 1,060—1,680	1	16,920	..	..	3,000	..	..	..	19,920
2. Statistical Officer 1×12×660.	.. Rs. 455—840	1	7,920	..	..	..	..	..	..	7,920
3. Investigator 2×12×247.	.. Rs. 335—555	2	..	10,728	..	..	..	..	..	10,728
4. Compiler 2×12×324 2×12×12.50	.. Rs. 240—396	2	..	7,773	300	..	..	..	..	8,076
5. Stenographer II 1×12×380 1×12×12.50	.. Rs. 296—460	1	..	4,530	150	..	..	..	..	4,710
6. Steno. Typist 1×12×270 1×12×9 1×12×75 (S.H.A.)	.. Rs. 220—315	1	..	3,240	108	..	900	..	..	4,248
7. Orderly Peons 4×12×174 1×12×8	.. Rs. 155—190	4	..	8,252	384	..	..	..	..	8,756
		<b>TOTAL</b>	..	24,840	34,656	942	3,000	900	..	64,338
<b>B. Field—</b>										
1. Assistant Director 1×12×850 1×12×200	.. Rs. 510—1,155	1	10,200	..	..	2,400	..	..	..	12,600
2. Research Assistant 5×12×540	.. Rs. 400—660	5	..	32,400	..	..	..	..	..	32,400
3. Investigator 4×12×447 4×12×400	.. Rs. 335—555	4	..	21,455	..	4,800	..	..	..	26,256
4. Junior Statistical Assi- stant. 5×12×380 5×12×7,50	Rs. 296—460	5	..	22,800	450	..	..	..	..	23,260
5. Compiler 1×12×324 1×12×7.50	.. Rs. 240—396	1	..	3,888	90	..	..	..	..	3,987
6. Correspondence Clerk- cum-Typist. 2×12×270 2×12×4	Rs. 220—315	2	..	6,480	96	..	..	..	..	6,576
7. Orderly Peons 1×12×17 1×12×3	.. Rs. 155—190	1	..	2,088	36	..	..	..	..	2,124
		<b>TOTAL</b>	..	10,200	89,112	672	7,200	..	..	1,07,184

Designation	Pay-scale	No.	P.O.	P.R.	H.R.A. F.A.	T.A.	O.A.	C.N.C./ R.	C.N.C./ (N.R.)	Total.
1	2	3	4	5	6	7	8	9	10	11
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A—	..	..	24,840	34,656	942	3,000	900	..	..	64,338
B—	..	..	10,200	89,112	672	7,200	..	..	..	1,07,184
		<b>TOTAL</b>	35,040	1,23,768	1,614	10,200	900	..	..	1,71,522

**Details of expenditure in the Five-Year Plan**

Item	1974-75	1975-76	1976-77	1977-78	1978-79	Total
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Pay of Officer ..	35,040	36,792	38,544	40,298	42,048	1,92,720
2. Pay of Establishment ..	7,23,768	1,29,956	1,36,144	1,42,332	1,48,520	6,80,720
3. H. R. A./C. A. ..	1,614	1,614	1,614	6,14	1,614	8,070
4. T. A. ..	10,200	10,200	10,200	10,200	10,200	51,000
5. O. A. ..	900	900	900	900	900	4,500
6. C. N. C. (R.) ..	6,000	6,000	6,000	6,000	6,000	30,000
7. C. N. C. (N. R.)..	32,990	..	..	..	..	32,990
<b>TOTAL</b>	2,10,512	1,85,462	1,93,402	2,01,342	2,09,282	1,00,000

	Rs.
C. N. C. (R.) HMR. at the rate of Rs. 100 per month for five units ..	6,000 per annum
C. N. C. (N. R.)—	
(1) Calculating machine 7 at the rate of Rs. 2,000	14,000
(2) Typewriter machine 7 at the rate of Rs. 15,000 .. ..	10,500
(3) Furniture at the rate of Rs. 5,000 .. ..	5,000
(4) Stationery and Printing of Forms .. ..	3,490
<b>TOTAL</b> .. ..	32,990

## CHAPTER XXVIII.

### INFORMATION AND PUBLICITY.

1. The various schemes under 'Information and Publicity' sector of the Five-Year Plan aim at promoting widespread understanding and interest among the people about the developmental activities of the State so that public response and co-operation may be elicited for successful implementation of the Plan. People's co-operation is a prerequisite for the success of any plan. For securing public support and co-operation in the implementation of Plan programmes, it is essential that a congenial atmosphere for proper understanding and appreciation of plan objectives be developed among the people by deploying various media of information and publicity.

2. In view of financial constraints and inter-sectoral priorities, an outlay of Rs. 30 lakhs only has been proposed for 'Information and Publicity' sector for the Fifth Five-Year Plan. The following schemes are, proposed for inclusion in the 'Information and Publicity' sector of the Fifth Five-Year Plan :—

Schemes proposed for inclusion in the Fifth Five-Year Plan.	Outlay proposed (1974-79). (Rs. in lakhs.)
1. Field Publicity Scheme ..	13.90
2. Establishment of Information Cell ..	4.50
3. Community Listening Scheme ..	2.50
4. Film Production ..	2.50
5. Press Advertisement ..	2.25
6. Song and Drama ..	1.25
7. Publication ..	1.25
8. Exhibition ..	1.25
9. Radio Rural Forum ..	0.60
Total ..	30.00

(a) *Field Publicity Scheme.*—With a view to strengthening field publicity activities, it is proposed to open 10 publicity units, at subdivisional headquarters, during the Fifth Five-Year Plan period. The annual cost over a publicity unit, as per existing yardstick, is about Rs. 85,000. The phasing of this programme during Fifth Plan is given below :—

Plan Year.	Number of Units proposed to be opened.	Estimated cost (Rs. in lakhs.)
1974-75 ..	1	0.85
1975-76 ..	2	2.01
1976-77 ..	2	2.68
1977-78 ..	2	3.38
1978-79 ..	3	4.98
Total ..	10	13.90

(b) *Establishment of Information Cells.*—Under this scheme, Information Cells are proposed to be set up one for each Development Department, or a group of Departments. Each cell will have an officer of the rank of Assistant Director of Public Relations who will be required to prepare stories, feature articles, etc. for publication in language newspapers and periodicals as well as in Government publications. These publicity materials will also be supplied regularly to the various news agencies and A. I. R.

It is proposed to set up 6 such Information Cells in the first year (1974-75) of the Fifth Five-Year Plan at an average annual cost of Rs. 90 lakhs. An amount of Rs. 4.50 lakhs is, therefore, proposed to be provided over the scheme during the Fifth Plan period.

(c) *Community Listening Scheme.*—Under this scheme, 750 C. L. sets are proposed to be distributed, on a priority basis, in remote rural areas covering illiterate and backward areas. Calculated on the basis of Rs. 300 per set, the minimum of 150 sets to be installed every year in such areas will cost Rs. 50,000 including the cost of installation etc. It is, therefore, proposed to provide Rs. 2.50 lakhs over this scheme during the Fifth Plan period.

(d) *Film Production.*—It is proposed to produce newsreels, documentaries and some feature films on carefully selected themes mainly relating to plan activities. A total of Rs. 2.50 lakhs is proposed to be provided over film production during the Fifth Five-Year Plan. A newsreel or documentary of 1,000 length costs a little over Rs. 8,300. Hence the footage of annual production will be 6,000, i.e., 6 newsreels or documentary every year.

(e) *Press Advertisement.*—The various plan activities and achievements in the sphere of development are intended to be given due publicity through attractive panel or display advertisements in newspapers and periodicals. It is, proposed to provide Rs. 50,000 annually over suitable advertisements to be published in various newspapers and periodicals, souvenir etc. The total outlay proposed for the Fifth Plan period is Rs. 2.25 lakhs.

(f) *Song and Drama.*—It is proposed to provide Rs. 0.25 lakh annually over publicity through Song and Drama.

(g) *Publication.*—An amount of Rs. 2.25 lakhs only is proposed to be provided for publication of various publicity literature on plan activities.

(h) *Exhibitions.*—It is proposed to publicise and popularise the plan programmes through exhibitions in rural areas during the Fifth Plan period. It is proposed to provide Rs. 0.25 lakh annually over rural exhibitions for which suitable models, charts, etc. will be got prepared. The Directorate is already in possession of two Exhibition Vans which will be furnished with up-to-date models, charts, photographs, etc., and sent to rural areas for putting up effective shows. The outlay proposed for the purpose is Rs. 1.25 lakhs only.

(i) *Radio Rural Forum.*—Under this scheme, rural people are encouraged to organise themselves into voluntary groups for discussion on development matters. It is proposed to provide Rs. 0.12 lakh annually over purchase and distribution of inland letters to help the organisers of the *gosthies* to make correspondence with the local AIR and Chief Organiser, R. R. F. in the P. R. D. Effective steps will be taken to revive the extinct Charcha Mandals and to organise new ones during the Fifth Plan. The outlay proposed for the scheme is Rs. 0.60 lakh only.

## CHAPTER XXIX.

### ADMINISTRATIVE BUILDINGS.

It has been indicated in the document entitled "Approach to the Fifth Five-Year Plan 1974—79" issued by the Planning Commission that all the outlays which directly or indirectly go to finance capital formation should be brought within the purview of the plan and that provision for such items as Government administrative and legislative buildings, etc., be provided for on the plan account. Accordingly it is proposed to make a suitable provision for the purpose in Fifth Five-Year Plan of the State.

2. Extensive reorganization of the territorial units of Administration such as division, district and subdivision has been undertaken recently. Before the reorganization there were only seventeen districts in the State, the average area and population, of a district being 3,953 square miles and 33 lakhs respectively. The average area of a district in Bihar was higher than that in many States, such as Tamil Nadu, Kerala, Mysore, Punjab (including Hariyana), Uttar Pradesh and West Bengal. Similarly the average district population in Bihar was the highest in the whole country; indeed it was more than double the average district population in States such as U. P and Guzerat. Clearly as basic administrative units, districts in Bihar were extremely unwieldy. The question of reorganizing districts into administratively more viable units was under consideration of the State Government for a long time, It is only recently that extensive reorganization of most of the districts in the State has been given effect to. As a result 14 more districts, 18 more subdivisions and one more division have come into being, taking the total number of districts, subdivisions and divisions to 31, 76 and 5 respectively. Already 12 new districts, 12 new subdivisions and one new division have started functioning. Reorganization of districts is expected to provide a more efficient and result-oriented administrative infra-structure for the implementation of the development programmes visualised for the Fifth Five-Year Plan.

3. With the coming into being of new administrative units, it has become imperative to provide for the minimum requirement of administrative buildings for offices, hospitals, police lines, jails, inspection bungalows and the minimal residential accommodation at the new centres of administration. It has been estimated that the total requirement for the purpose would be of the order of Rs. 28.35 crores. During the year 1973-74, a provision of Rs. 1.06 crores has been made for the purpose. This leaves a balance requirement of Rs. 27.29 crores. Having regard to the constraint on resources, it is proposed to phase-out the programme of the construction of administrative buildings and provide only Rs. 16.85 corres for the purpose in the Fifth Five-Year Plan. Broad head-wise break-up along with the yearwise phasing is indicated in the Table below :—

(Rs. in lakhs)

Serial no.	Heads of construction.	Proposed Fifth Plan.					Total.	
		1974-75.	1975-76.	1976-77.	1977-78.	1978-79.		
1	2	3	4	5	6	7	8	
1	General Administration	..	115.00	95.00	110.00	85.00	65.00	470.00
2	Jails	..	50.00	80.00	95.00	80.00	50.00	355.00
3	Civil Construction	..	90.00	100.00	105.00	90.00	55.00	440.00
4	Health	..	15.00	10.00	35.00	40.00	25.00	125.00
5	Police	..	40.00	40.00	65.00	40.00	30.00	215.00
6	Administration of Justice	..	10.00	10.00	10.00	13.00	6.00	49.00
7	Miscellaneous	..	10.00	5.00	7.00	5.00	4.00	31.00
	Total	..	330.00	340.00	430.00	350.00	235.00	1,685.00

## CHAPTER XXX

### STRENGTHENING OF PLANNING MACHINERY.

The importance of setting up a suitable machinery for formulation, implementation, monitoring and co-ordination in the State is apparent. Attainment of Plan objectives depends mainly on efforts at realistic project formulation, timely implementation, co-ordination and periodical appraisal.

2. The State Planning machinery is not adequately equipped for the formulation of the plans. Implementation, co-ordination and monitoring aspects also need considerable improvement. The Planning Commission has suggested both strengthening of the planning apparatus and a functional re-structuring thereof by setting up of units like perspective planning unit, the plan formulation unit, the plan monitoring unit, information unit and evaluation unit, the district/regional planning unit, the plan co-ordination unit and man-power and employment unit.

3. In March, 1972 the State Government constituted the Bihar State Planning Board. It is an advisory body, headed by the Chief Minister of the State. The functions of the Board are as follows :—

- (a) To prepare an inventory of available resources of the State and make an assessment of the material, capital and human resources including technical personnel and investigate the possibilities and suggest measures for augmenting such of these resources as are found to be deficient in relation to the State's requirements.
- (b) To prepare a perspective plan for the State for the next 15 to 20 years; (covering the period 1974 to 1994) for the optimum and balanced utilisation of State's resources. In formulating such perspective plan the State Planning Board will—
  - (i) start by setting up desirable and feasible goals for the State income and its distribution between different sections of the people. It will also keep in view the declared social goal of achieving socialist society;
  - (ii) draw up an estimate of the investment needed in various fields of economic activity to achieve the desired target of the rate of growth. These investments will cover the private and public sectors, the Central and State Governments, the co-operative sector and various financial institutions. The perspective plan will spell out the resources required in terms of manpower, materials and equipments, besides finances needed to implement the programmes;
  - (iii) discuss and place before the State Government for their consideration alternative strategies for achieving the goal of growth. Such alternative strategies will include for instances relative importance to be accorded to industry or to agriculture, small industry or to heavy industry, etc. The perspective plan will also indicate in terms of broad orders of magnitude the phasing of investments and benefits arising from adoption of different strategies; and
  - (iv) make a special analysis of the levels, potentials and problems of development in different regions and areas of the State and draw up long-term plans for such regions/areas within the frame-work of State's perspective plan.

- (c) To make critical and qualitative appraisal of previous plans and to arrange for long-term evaluation of plans and programmes. This will also include ex-ante appraisal of some important projects and programmes specially referred to by the State Government.
- (d) To prepare shelves of projects and recommend priorities.
- (c) To make suitable recommendation to the State Government from time to time, as may appear to it to be appropriate either for facilitating the discharge of the duties assigned to it, or on a consideration of the prevailing economic conditions.
- (f) To make recommendations or give its advice on any matter referred to it by the State Government.

There are four functional divisions in the Board besides the Administrative Division. They are as follows :—

- (i) Agriculture and Allied Programmes Division;
- (ii) Industries Division;
- (iii) Social Services and Human Resources Division; and
- (iv) Perspective Planning and Economic Division.

It will appear that the main functions of the Planning Board are preparation of a perspective plan, critical appraisal of previous plans, long-term evaluation of plans and programmes, preparation of shelves of projects and recommendation regarding priority of objectives.

The Board has a whole-time Deputy Chairman, two whole-time members, one expert in the field of economics and the other in the field of science, engineering or technology. Development Commissioner and Financial Commissioner are part-time members of the Board.

4. While the Board is concerned with the perspective planning of the State, the Planning Department is responsible for formulation of Five-Year and Annual Plans, adjustment of Plan Schemes, District Plan, Manpower planning, etc. The Development Commissioner and the various departments of the State Government concerned with the developmental activities are responsible for implementation, monitoring, periodical evaluation and appraisal of the plans and programmes. Development Commissioner, who is the Principal Secretary to Government in Planning and Development Departments co-ordinates the activities of various departments concerned with Five-Year Plans and guides and directs them so that the programmes are executed as approved by the Government and the Planning Commission. The Planning Department, which is entrusted with the work of plan formulation, review and co-ordination, is headed by a Secretary, who is assisted by 2 Deputy Secretaries, one Under-Secretary and three Planning Officers along with a small ministerial staff.

A very small organisation has been set up in the Planning Department under the State Man-Power Officer-cum-Deputy Secretary to Government (He is one of the two Deputy Secretaries in this Department). This organisation has yet to have adequate supporting staff.

5. In the wake of greater emphasis on the creation of employment opportunities, specially giving self-employment, the Directorate of Special Employment has been set up in the Planning Department under a Director-cum-Joint Secretary. This Directorate also has to have adequate supporting staff. This Directorate maintains liaison with various departments concerned with employment-oriented programmes and is responsible for processing, co-ordination and monitoring of such programmes.



6. Besides the Planning Department and the State Planning Board, there is the Chhotanagpur and Santhal Parganas Autonomous Development Authority which was set up in the year 1971. The functions of the Authority are as follows :—

- (a) To prepare a long-term plan for all-round development of the region.
- (b) To consider and advise the State Government in regard to formulation and execution of schemes pertaining to development of the Chhotanagpur Division and the Santhal Parganas district as may be included in the Development Plan of the State.
- (c) To recommend further measures that may be necessary to accelerate the pace of development of the Chhotanagpur Division and the Santhal Parganas district, including disciplinary measures against any officer concerned with the execution of development work under the jurisdiction of the Authority.
- (d) To review the progress in respect of the development scheme pertaining to the Chhotanagpur Division and the Santhal Parganas district.
- (e) To call for returns and reports in relation to the implementation of the schemes of development in its area and to give guidance and direction to the authorities concerned with the implementation of the schemes.

This Authority has been set up in view of the special problems of the Chhotanagpur and Santhal Parganas area where most of the scheduled tribes population of the State is concentrated.

This authority is also headed by the Chief Minister of the State. It has a part-time Deputy Chairman. There is a full-time Member-Secretary who is assisted by two Deputy Secretaries and one Planning Officer.

7. Other concerned development departments are responsible for the formulation of the sectoral programmes and their execution. The formulation of sectoral programmes requires qualitative improvement. In some departments, namely, Agriculture, Irrigation, Industries, Education, Health and Public Works there are planning cells, while others do not have any such organisation. Since the sectoral programmes supply the content of the annual and the Five-Year Plans, it is necessary that the Planning Cells are strengthened in the departments where they exist and the cells are set up in those departments where there are no such cells.

8. There is no machinery at the district and divisional level for the formulation of district/regional plans. The District Officer is co-ordinator of all development activities and functions as the leader of the team which includes technical officers posted in the district. Each District Officer is assisted by a District Development Officer. At the divisional level, the Divisional Commissioner is assisted by a Regional Development Officer. At the divisional level also there is no machinery at present. With increased emphasis on district/regional planning, it is considered necessary to have small cells at the district/regional levels. The State Government have already taken a policy decision to separate developmental functions from the revenue and other functions and in pursuance of this policy, Deputy Development Commissioners-cum-Chief Executive Officers have been posted in two districts. These Officers will be responsible for the formulation of the district programmes, their timely execution and co-ordination. Under the Bihar Panchayat Samities and Zila Parishads Act, Government are committed to establish Panchayat Samiti in each block and a Zila Parishad in each district. It has been decided that both at the district and regional levels, small cells should be set up for formulation of district and regional programmes consisting of a district/Regional Planning Officer, and a small supporting staff.

9. It will appear from the foregoing paragraphs that the Planning Department, the State Planning Board, the Chhotanagpur and Santhal Parganas Autonomous Development Authority, the Man-Power Organisation and the Directorate of Special Employment in the department of Planning and the Planning Cells in some of the departments need strengthening. It is equally necessary to set up Planning Cells in those development departments which do not have any such organisation at present as also the district/regional planning units. During the Fifth Plan it is proposed to —

- (a) strengthen the State Planning Board, Planning Department and the Chotanagpur and Santhal Parganas Autonomous Development Authority;
- (b) strengthen existing man-power planning and employment set-up and provide such cells at departmental and areas levels;
- (c) establish Monitoring Organisations at State, Departmental, Divisional and District levels;
- (d) strengthen existing planning cells in development departments of the State and set up such cells where they do not exist; and
- (e) set up district/regional planning units.

For the aforesaid purposes an outlay of Rs. 140 lakh is proposed, the break-down of which is as follows :—

Serial no.	Item.	Proposed outlay.  (Rs. in lakh)
1	Strengthening of the Planning apparatus and creation of various units in the Planning Department.	35.52
2	Special Employment Scheme .. .. .	5.00
3	State Planning Board .. .. .	10.00
4	Strengthening of the Chhotanagpur and Santhal Parganas Autonomous Development Authorities.	12.50
5	Divisional Planning Units .. .. .	6.73
6	District Planning Units .. .. .	39.00
7	Strengthening of Planning Cells already existing in Irrigation, P.W.D., Health, Education, Industries, Agriculture Departments, etc.	7.50
8	Setting up of Planning Cells in various development departments, viz., L.S.-G., P.H.E.D., Welfare, Co-operation, Mines and Minerals, Community Development, Labour and Employment, Animal Husbandry, Dairy, Fisheries, etc.	23.75
TOTAL .. .. .		Rs. 140 lakhs

