



ANNUAL PLAN

1985-86

GOVERNMENT OF INDIA
PLANNING COMMISSION

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CHAPTER 1

ANNUAL PLAN 1985-86 AND REVIEW OF PERFORMANCE IN 1984-85

The Annual Plan for 1985-86, which marks the beginning of the Seventh Five Year Plan, has the distinct advantage of starting in a favourable climate. The overall target for growth rate of Gross Domestic Product (GDP) in the Sixth Plan was achieved. The success in agriculture, particularly in food production, was spectacular and so was the growth in crude oil production. The growth of industry was, however, below expectations. In the Annual Plan 1985-86, the highest priority has been accorded to food, employment and productivity consistent with the Seventh Plan strategy. The area-specific and beneficiary-oriented poverty alleviation programmes would be implemented at an accelerated pace. Emphasis has also been placed on the development of infrastructural sectors and provisions made for sustaining the tempo of development in other areas.

Review of Performance in 1984-85

1.2 The economy recorded further progress during 1984-85. The Gross Domestic Product in real terms is estimated to have increased by 3.5 to 4.0 per cent in that year on top of 7.6 per cent in the preceding year. The average annual growth rate for the Sixth Plan period works out to 5.2 per cent, which is equal to the targeted growth rate for the Plan period.

1.3 As a result of the various measures taken to increase the availability of essential commodities on the one hand and to contain the aggregate demand through suitable fiscal and monetary policies on the other, the rate of inflation as measured by the increase in wholesale price index was kept down to 7.1 per cent in 1984-85 as against 9.5 per cent in 1983-84. The performance of the infrastructural sector, which is a key to the development of the industrial sector in particular and the economy in general, was quite commendable. The balance of payments position continued to show improvement for the third consecutive year and the Government voluntarily terminated the Extended Fund Facility arrangement with the IMF with effect from 1st May 1984 after drawing only 3.9 billion SDRs out of 5 billion SDRs available under the arrangement.

1.4 The rates of gross domestic saving and investment in 1984-85 are estimated at 23.3 per cent and

24.5 per cent, respectively, which are a little higher than those in 1983-84 as shown in Table 1.1.

TABLE 1.1
Savings and Investment

(Rs. crores at current prices)			
Sl. No.	Item	1983-84	1984-85
1	2	3	4
1.	Gross Domestic Saving	44172	50738
2.	Net Capital Inflow from Abroad	2566	2600
3.	Gross Domestic Capital Formation	46738	53338
4.	Rate of Saving*	22.6	23.3
5.	Rate of investment*	23.9	24.5

*As per cent of GDP at current prices.

1.5 In 1983-84, agricultural production recorded a spectacular growth of 13.6 per cent over the previous year. The foodgrains production reached a record level of 151.5 million tonnes in 1983-84 as against 129.5 million tonnes in 1982-83 and registered a quantum jump of more than 18 million tonnes over the earlier peak level of 133.3 million tonnes in 1981-82. However, due to the erratic behaviour of the monsoon and inadequate winter rains, the foodgrains production in 1984-85 is estimated to have been only 148-150 million tonnes as against the target of 153.6 million tonnes.

1.6 As for commercial crops, the anticipated production of oilseeds, cotton and jute and mesta in 1984-85 shows an increase over the 1983-84 level, while that of sugarcane shows a decline.

1.7 Notwithstanding the unfavourable weather conditions, the overall agricultural production in 1984-85 is estimated at about the same level as in 1983-84. This reflects the success of the strategy of development of agriculture, which included increased and timely supply of vital inputs such as irrigation and fertilisers, increase in the area under high yielding varieties and distribution of certified seeds. The area under irrigation went up from 58.70 million hectares in 1983-84 to 60.47 million hectares in 1984-85. The consumption of fertilisers increased from 77.1 lakh tonnes in 1983-84 to 83.7 lakh

tonnes in 1984-85, registering an increase of 8.9 per cent. Fertiliser consumption per hectare is estimated to have increased from 44.6 kgs. to 50 kgs. The area under high yielding varieties increased from 52.5 million hectares to 56 million hectares and distribution of certified seeds from 57.7 lakh quintals to 70.4 lakh quintals.

1.8 With a good harvest and remunerative price offered to the producers, the procurement of foodgrains increased from 16 million tonnes in 1983-84 to 19.4 million tonnes in 1984-85, or by over 21 per cent. The procurement of rice in 1984-85 amounted to 9.9 million tonnes, and that of wheat to 9.2 million tonnes, as against 7.7 million tonnes and 8.3 million tonnes respectively in 1983-84. The offtake of foodgrains from the public distribution system, on the other hand, showed a decline in 1984-85. As a result, the stock of foodgrains with public agencies increased from 15 million tonnes at the end of 1983-84 to 21.4 million tonnes at the end of 1984-85. This had a salutary effect on the price situation.

1.9 The various poverty alleviation programmes continued to be pursued vigorously. Under the Integrated Rural Development Programme (IRDP) the estimated number of beneficiaries in 1984-85 is placed at 39.8 lakhs as against 36.85 lakhs in 1983-84. As regards the National Rural Employment Programme (NREP), the total employment generation in 1984-85 was 352.3 million man-days as against 302.7 million man-days in 1983-84. Besides, an additional employment of 254.9 million man-days was provided under the Rural Landless Employment Guarantee Programme (RLEGP).

1.10 High priority was accorded to the development and improved performance of the infrastructural sectors such as coal, oil, power etc., which were regularly monitored. Thus, the production of coal (including lignite) increased from 145.5 million tonnes in 1983-84 to 155.2 million tonnes in 1984-85, or by 6.7 per cent. Similarly, the production of crude oil increased from 26 million tonnes in 1983-84 to about 29 million tonnes in 1984-85, or by 11.4 per cent. The installed refining capacity increased from 37.8 million tonnes in 1983-84 to 45.55 million tonnes in 1984-85, but the refining throughout increased only marginally from 35.3 million tonnes in 1983-84 to 35.6 million tonnes in 1984-85 primarily because of the shutdown of the Cochin Refinery for about seven months due to a fire.

1.11 Power generation from utilities increased from 139.9 billion kWh in 1983-84 to 156.6 billion kWh in 1984-85, representing an increase of 12 per cent. The increase in thermal generation was as much as 14.1 per cent due to the addition to capacity of the order of 2662 MW and also to better availability of coal, regular supply of spares, better maintenance of plants and equipment and close monitoring. The thermal Plant Load Factor (PLF) increased from 47.9 per cent in 1983-84 to 50.1 per cent in 1984-85. The hydel generation in 1984-85 showed

an increase of 7.9 per cent, due mainly to the installation of additional capacity of 418 MW. The overall performance of the transmission and distribution programme also showed a marked improvement.

1.12 The revenue earning goods traffic carried by the railways in 1984-85 is estimated at 236.3 million tonnes, representing an increase of 3 per cent over the 1983-84 level. The increase was achieved mainly by improved utilisation of wagons.

1.13 With good harvest, improved performance of the infrastructural sectors and other measures adopted to promote industrial growth, the index of industrial production recorded an increase of 6.4 per cent during 1984-85. Electricity generation recorded a growth rate of 12 per cent, mining and quarrying of 8.1 per cent and manufacturing industries of 5.2 per cent. The index of industrial production, however, does not reflect the true growth in the industrial sector as it does not take into account the growth in the small scale sector which is increasing at a faster rate than the organised sector. Besides, the base of the index continues to be 1970 and, as such, does not reflect fully the growth in industries like electronics, petro-chemicals etc. which were virtually non-existent in 1970.

1.14 A broad analysis of the provisional data available in respect of individual industries indicates that increases in output were recorded over a wide spectrum of industries in 1984-85. Some of the important industries which registered significant increases include fertilisers, cement, aluminium, copper, textile machinery, tractors, commercial vehicles, passenger cars, railway wagons, motor cycles and scooters, newsprint, paper and paper board, drugs and pharmaceuticals, etc. The production also showed an increase, though not significant, in such industries as steel, lead, basic chemicals and thermo plastics.

1.15 Industrial production in 1984-85, though higher than in the previous year, however, fell short of the targets for some of the infrastructural industries and other major industries like coal, steel, sponge iron, non-ferrous metals, cement, newsprint and a few engineering industries.

1.16 In order to stimulate industrial investment and growth, a number of measures were taken during the year towards liberalisation of the industrial policy and streamlining of licensing procedures. The policy regarding manufacture of telecommunication equipment, which was hitherto reserved for development exclusively in the public sector, was relaxed and the co-operation of private enterprises sought in the manufacture of switching and transmission equipment in the communication sector. Similarly, with a view to accelerating the growth of computer industry in the country, a new policy was announced in November, 1984 under which the licensing procedures for manufacture of computers were streamlined and the policy liberalised. The revised policy contained a new package of incentives, including a

sharp reduction in the rates of duty on imports of components and raw materials.

1.17 The Village and Small Industries sector, which represents the decentralised industrial sector, continued to play a vital role in the generation of employment opportunities on a dispersed basis and in the utilisation of resources, both men and material. It also helped significantly in reducing the external trade deficit through exports. In 1984-85, the decentralised sector contributed about 50 per cent of the value added in the manufacturing industry, provided employment to 28.7 million persons and generated exports of the order of Rs. 4,558 crores.

1.18 According to provisional data, exports at current prices increased from Rs. 9676 crores in 1983-84 to Rs. 11,477 crores in 1984-85, representing an increase of 18.6 per cent. Imports at current prices rose from Rs. 15,457 crores in 1983-84 to Rs. 16,730 crores in 1984-85, or by 8.2 per cent. On provisional estimates, therefore, the trade deficit, narrowed appreciably from Rs. 5781 crores in 1983-84 to Rs. 5254 crores in 1984-85. An analysis of commodity-wise provisional data for the first half of 1984-85 suggests a better export performance in respect of a number of agricultural as well as industrial products such as tea, spices, cashew kernels, tobacco, leather and leather manufactures, cotton fabrics, readymade garments and chemicals and allied products. The figures for imports, however, indicate that whereas net imports of crude oil and petroleum products in 1984-85 were lower than those in 1983-84, the share of bulk imports in the total import bill did not decline in comparison to 1983-84 on account of a substantial increase in the import of fertilisers, edible oils and non-ferrous metals.

1.19 The expatriate remittances, an important element in India's invisible earnings, remained high. In an effort to attract a larger inflow of funds from non-resident Indians, higher rate of interest on deposits, tax concessions and other facilities have been allowed by the Government. Although concessional aid prospects have become less promising, gross disbursements of official development assistance did not decline, being dependent on past aid commitments and authorisations. Thus, gross disbursements and net inflow of assistance (after allowing for debt servicing) were, respectively, Rs. 2707 crores and Rs. 1592 crores in 1984-85 as against Rs. 2268 crores and Rs. 1235 crores in 1983-84.

1.20 The foreign exchange reserves at Rs. 6817 crores at the end of 1984-85 were higher by Rs. 1319 crores, i.e. by 24 per cent, over the level of Rs. 5498 crores at the end of 1983-84. Due to improvement in the reserves position, the Government decided to forego, as stated earlier, SDRs 1.1 billion provided by the IMF under the Extended Fund Facility. In fact, excluding net drawals from the IMF, placed at Rs. 76 crores, the reserves showed an increase of Rs. 1243 crores in 1984-85. This is in sharp contrast to the decline in reserves by Rs. 104 crores in 1983-84 in spite of net drawals of Rs. 1337 crores

from the IMF. Part of the increase in reserves in 1984-85 was, however, because of the increase in the rupee value of dollar holdings.

1.21 The fiscal policy in 1984-85 aimed at maintaining balance between the need for larger provisions for Plan expenditure to meet the targets set in the Sixth Plan and the need to contain total demand in the face of inflationary pressures which emerged in the first half of the year.

1.22 The monetary and credit policies were guided by the twin considerations of checking inflationary pressures and meeting fully the requirements of funds for productive purposes. To mop up excess liquidity, the Statutory Liquidity Ratio (SLR) for commercial banks was raised from 35 per cent to 36 per cent in a two phased adjustment completed during the first half of 1984-85. The incremental cash reserve ratio of 10 per cent on the addition to deposits which was imposed in November 1983 was maintained during 1984-85 as well to dampen the monetary consequences of reserve money expansion. The cut off point for food credit beyond which 100 per cent refinance is made available to commercial banks was increased in two stages from Rs. 3300 crores to Rs. 4300 crores. Notwithstanding these measures, the money supply with the public (M_1) during the year 1984-85 increased at a higher rate of 19.2 per cent as against 15.9 per cent in 1983-84. The aggregate monetary resources (M_3) increased by 18.3 per cent in 1984-85 against 17.9 per cent in 1983-84.

1.23 The rate of inflation, which was causing concern in 1983-84, continued to exert pressure on the prices during the early part of 1984-85 as well. The wholesale price index moved up by 7.4 percent between 31st March and 25th August, 1984, after which there was a normal seasonal decline. The prices of cereals, which had declined by 5 percent in 1983-84, showed a further decline in 1984-85. However, the prices of pulses, sugar, khandsari and gur, edible oils and tea came under pressure. Due to various measures initiated by the Government, there was a marked improvement in the latter part of the year and the annual rate of inflation in wholesale prices was contained at 7.1 per cent in 1984-85 as compared to 9.5 per cent in 1983-84. The consumer price index increased during 1984-85 at a lower rate of 6.4 percent than the increase in the wholesale price index at 7.1 per cent.

1.24 The revised estimate of Plan expenditure in 1984-85 is Rs. 30,232 crores, which is marginally higher than the approved outlay of Rs. 30,170 crores. During the Sixth Plan period, as against the approved outlay of Rs. 97,500 crores, the expenditure (on the basis of actuals for the first four years and revised estimate for 1984-85) was Rs. 1,09,645 crores. However, due to price rise during the Plan period, the actual expenditure in real terms was lower than the originally approved outlay. Table 1.2 gives the approved outlays and actual expenditure for different years as also for the Sixth Plan period as a whole.

TABLE 1.2
Plan Outlays/Expenditure 1980-85

Year	Sector	Approved Outlay	Actual Expenditure [@]	(Rs. crores)
				Percentage of Actual Expenditure to Approved Outlay
1	2	3	4	5
1980-81	Centre	7440	7049	95
	States	7414	7527	102
	U. Ts	225	256	100
	Total :	15109	14832	98
1981-82	Centre	8619	9196	106
	States	8471	8666	102
	U. Ts	328	348	106
	Total :	17418	18210	105
1982-83	Centre	11000	11285	103
	States	9540	9588	101
	U. Ts	393	410	104
	Total :	20933	21283	102
1983-84	Centre	13870	13644	98
	States	11130	10995	99
	U. Ts	481	449	93
	Total :	25481	25088	98
1984-85	Centre	17351	17495*	101
	States	12261	12181*	99
	U. Ts	558	556*	101
	Total :	30170	30232*	101
Total 1980-85	Centre	47250E	58280	
	States	48600E	48816	
	U. Ts	1650E	2015	
	Total :	97500E	109,111	109645

*Revised Estimates.

@Excludes expenditure on account of relief from natural calamities.

£Outlays as originally approved for the Sixth Five Year Plan.

Annual Plan 1985-86—Strategy and Programmes of Development

1.25 Consistent with the Seventh Plan strategy, the accent in the Annual Plan 1985-86 will be on food, employment and productivity. Substantial allocation of resources has been made for agriculture, irrigation, fertiliser production, rural development and poverty alleviation and employment oriented programmes. At the same time, high priority has been given to the development of power, oil and other infrastructure sectors. This will also help in attaining fuller utilization of capacity and improving productivity. Suitable provision has also been made for industrial development and upgradation of technology. Control of inflation and prudent management of balance of payments are other important facets of the Plan.

Agriculture

1.26 Efforts for agricultural development would be further intensified. The strategy of increasing irrigated area, greater use of fertilisers, development of high yielding varieties and bringing more areas under high yielding varieties, provision of credit and price support policy and extension of improved technology to more areas would continue. Special emphasis has been laid on increasing the production of rice in the eastern region through intensive cultivation, introduction of high yielding varieties and making fuller use of ground water.

1.27 Besides developing suitable technology for improving the productivity of rice in the eastern region

and other areas, stress is being laid on developing such high yielding varieties of wheat and maize as are suitable for stress conditions and are disease and pest resistant. Pulses being an important ingredient of the consumption basket for a large proportion of the population and a source of protein for the poor, the need for evolving improved and early maturing varieties of pulses is also being stressed.

1.28 A significant proportion of the foreign exchange earnings is being spent on the import of edible oils. The Annual Plan, therefore, lays emphasis on increasing the domestic production of oilseeds through intensive cultivation of existing varieties, developing new varieties which are early maturing and disease resistant and promoting cultivation of oilseeds on irrigated lands.

1.29 A high priority is accorded to the development of dry land/rain fed farming. The development strategy envisages provision of area specific technological packages of inputs and services. Maximum emphasis has been placed on research on dryland agriculture in terms of developing specific agro-techniques, inter-cropping and multiple cropping systems and the development of arid zones, saline and alkaline lands, cold deserts and north-eastern areas. The Plan also highlights the need for popularising improved farm machinery and implements.

1.30 Table 1.3 below gives the production targets of major crops as also of vital inputs for 1985-86 alongwith the likely achievements in 1984-85.

TABLE 1.3
Production of Selected Crops and Inputs in 1984-85 and 1985-86

Crops	Unit	Anticipated Production 1984-85	Targets of Production 1985-86
1	2	3	4
Foodgrains	Million tonnes	148.0-150.0	159.2
Oilseeds	do.	13.0	13.6
Sugarcane	do.	175.0	191.0
Cotton	Lakh bales (170 kg. each)	85.0	86.0
Jute & Mesta	Lakh bales (180 kg. each)	78.0	86.5
Distribution of certified/quality seeds	Lakh quintals	70.4	89.0
Consumption of chemical fertilisers (NPK)	Lakh tonnes	83.74	95.5
Pesticides (technical grade material)	'000 tonnes	50.0	55.7

Rural Development Programmes

1.31 The poverty alleviation programmes are being strengthened and improved and these will continue at an accelerated pace during 1985-86. As the incidence of poverty varies among and within the States, a selective approach in terms of outlays and programmes of development in different areas has been taken up. Besides, distributive land reforms and security of tenure to the informal tenant are to be directly integrated with the anti-poverty programmes.

1.32 Under the Integrated Rural Development Programme, an element of selectivity according to the incidence of poverty has been introduced. Apart from covering a large number of new beneficiaries, who would be provided subsidy at an enhanced rate, a second dose of assistance would be provided to those Sixth Plan beneficiaries who have not been able to attain income increases to the desired extent. A target of 4 million beneficiaries (both old and new) has been fixed for 1985-86.

1.33 Under the National Rural Employment Programme, it is proposed to generate employment of 230 million man-days during 1985-86. In view of the comfortable food stock, an additional 1 million tonnes of foodgrains per year are expected to be provided for the programme during the Seventh Plan period over and above its normal requirements.

1.34 Under the Rural Landless Employment Guarantee Programme, which aims at expanding employment opportunities in the rural areas with a sharper focus on the landless labourer households, which constitute the hard core of the people below the poverty line, a target of providing employment of 209.8 million man-days has been fixed for 1985-86.

1.35 The Area Development Programmes such as Drought Prone Area Programme (DPAP) and Desert Development Programme (DDP) are designed to supplement the other anti-poverty programmes. The basic objectives of DPAP and DDP include restora-

tion of ecological balance of the area by way of soil and moisture conservation, development and management of irrigation potential, afforestation and checking of further desertification by sand dune stabilisation and shelter belt plantations, restructuring of cropping pattern as also development of livestock resources. These programmes aim at increasing the productive potential of the areas, generation of additional employment and raising the income levels of people.

Infrastructure

1.36 The Annual Plan 1985-86 attaches great importance to the development of the infrastructural sector which is a pre-requisite for economic growth. In the oil sector, emphasis during 1985-86 will be on further intensification of exploration as well as developmental activities. The target for crude oil production has been fixed at 30.14 million tonnes as against the actual production of 28.99 million tonnes in 1984-85. The refining capacity is expected to increase from 45.55 million tonnes in 1984-85 to 47.90 million tonnes in 1985-86 and crude throughput from 35.56 million tonnes to 42.14 million tonnes.

1.37 Recognising the need for a gradual transition from the present dependence on oil, the Annual Plan attaches great importance to the development of other energy sources. The demand for coal in 1985-86 has been assessed at 163.80 million tonnes (excluding 5.1 million tonnes of middlings), showing an increase of about 18 per cent over the offtake of 139.23 million tonnes in 1984-85. The highest demand for coal is from the power sector (44.2 per cent), followed by steel (18.5 per cent), railways (5.9 per cent), cement (5.3 per cent) and fertilisers (3.1 per cent).

1.38 Keeping in view the estimated demand as also recognising the urgent need to draw down pit-head stocks, which stood at 30 million tonnes at the beginning of April 1985, and the requirements of imported low ash coking coal for steel, the production target for coal for 1985-86 has been fixed at 158.5 million tonnes, which is higher than the estimated production of 147.44 million tonnes in 1984-85 by 7.5 per cent.

To ensure uninterrupted production, power supply to the mines, especially in the eastern region, will be streamlined. The Plan envisages movement of about 120 million tonnes of coal by rail so as to ensure that there is no imbalance between demand and supply at the consuming centres, while, at the same time, the movement of coal by road is minimised.

1.39 The target for power generation in utilities during 1985-86 has been fixed at 170 billion kWh as against 156.63 billion kWh generated during 1984-85, showing an increase of 8.5 per cent. Of the total power generation in 1985-86, the share of thermal generation will be 110 billion kWh (64.7 per cent), of hydel generation 56 billion kWh (32.9 per cent) and of nuclear generation 4 billion kWh (2.4 per cent).

1.40 The total addition to the generating capacity in 1985-86 is estimated at 4460 MW, taking the aggregate generating capacity to about 46950 MW in utilities by the end of the year. Of the estimated total additional generation capacity, the share of thermal units will be 3057 MW (68.5 per cent), of hydel 1168 MW (26.2 per cent) and of nuclear 235 MW (5.3 per cent). The Plant Load Factor (PLF) has been assumed to be 50 per cent i.e. at approximately the same level as in 1984-85. Particular attention will be given to modernisation and renovation of plants, reduction of the time taken for stabilisation of the newly commissioned thermal units and strengthening of the transmission and distribution system.

1.41 The programmes of rural electrification and energising pumpsets, which also constitute important components of the 20-Point Programme, will continue to be accorded a high priority within the constraint of available resources. During 1985-86, 3.96 lakh pumpsets will be energised and 20698 villages electrified, the corresponding estimates for 1984-85 being 3.97 lakh pumpsets and 21780 villages, respectively.

1.42 The main thrust in the railway sector during 1985-86 would be to modernise, renew and rehabilitate track, rolling stock, workshops and maintenance sheds and other elements of the network. The electrification of track in pursuance of a rational traction policy, improvement in productivity through technological upgradation and computerised Operational Information Services, improvement in quality of service, qualitative change in research and adoption of modern technology are being visualised in the Annual Plan 1985-86 as a part of the development strategy for the railways in the Seventh Plan. It is envisaged that during 1985-86 the originating revenue earning freight traffic will increase to 250 million tonnes from 236.3 million tonnes in 1984-85.

1.43 In the Seventh Plan, as also in the Annual Plan 1985-86, the main thrust under roads will be to complete the spill-over schemes and remove deficiencies in the existing road network. In the Central sector, high priority has been accorded to increasing the capacity of the National Highways by widening those with single lane carriage-way to double lane carriage-way and strengthening the road surface wherever required in the light of the traffic intensity. Stress will be laid on completing the on-going schemes with only the minimum outlay being allocated for

new schemes. Participation by private investors in the road construction programme is to be encouraged.

1.44 The thrust in road transport will be on replacement and rehabilitation of overaged bus fleet and other assets, modernisation of workshops, consolidation of existing services and augmentation of bus fleet to cater to increased traffic on the existing routes in the already nationalised sector. In non-nationalised areas, private sector is to be encouraged to operate to meet the traffic needs. The State Road Transport Corporations as well as the Departmental transport undertakings will also have to take measures, including revision of fares, to improve their financial performance.

1.45 The emphasis under Ports will be on the development of the infrastructure of major ports to match the type and size of vessels as also the type of cargo. Provision of adequate drafts for handling larger ships, improvement and modernisation of cargo handling system, specially for the fast developing container traffic, and general improvement in labour and equipment productivity have been accorded due importance.

Industry

1.46 The strategy of industrial development adopted in the Annual Plan for 1985-86 is that maximum benefit should be derived from the investments already made rather than take up new projects. With this end in view, priority has been accorded to completing the on-going projects. Simultaneously, emphasis has been placed on modernisation, renewals, replacements and addition of balancing equipment so as to maximise production from the installed capacity, reduce the cost per unit and improve the quality of products. In view of the large commitments for on-going projects and the paucity of resources, an extremely selective approach has been adopted in regard to new starts in the public sector. However, taking into account the long-term requirements, and the need to make timely entry into areas of future growth, provision has been made for new starts in the thrust areas like electronics. As a consequence of the resource constraint and the priorities envisaged for the Seventh Plan, some of the capital intensive projects approved earlier, but not started, had to be deferred. Great emphasis has been laid on improving the performance of the public sector undertakings with focus on upgradation of technology, modernisation, better utilisation of assets and increase in productivity.

1.47 Due to the priority accorded to increasing the production of basic industries, more than 80 per cent of the outlay of Rs. 7857 crores for industry and minerals in the Central sector is accounted for by petroleum (Rs. 3085 crores), coal, including lignite (Rs. 1102 crores), iron and steel (Rs. 925 crores), fertilisers (Rs. 783 crores), non-ferrous metals (Rs. 568 crores) and petro-chemicals (Rs. 156 crores).

1.48 With increase in power generation and improvement in other infrastructure areas, larger availability of basic inputs like steel and cement, liberalisation of industrial policy, buoyancy in the share market and an optimistic outlook on the agricultural front, it should be possible to achieve a

growth rate of about 7 per cent in industrial production during 1985-86. The anticipated production in

1984-85 and the targets for 1985-86 for selected industries are given in Table 1.4.

TABLE 1.4
Production of Selected Industries

Name of Industry	Unit	1984-85 Actual/Anticipated Production	1985-86 Production targets	Percentage increase in 1985-86 over 1984-85
1	2	3	4	5
Coal	Million tonnes	147.44	158.50	107.5
Crude Oil	do.	28.99	30.14	104.0
Saleable Steel	do.	8.82	9.80	111.1
Aluminium	'000 tonnes	276.50	300.00	108.5
Cement	Million tonnes	30.17	34.00	112.7
Petroleum Products	do.	35.56	42.14	118.5
Soda Ash	'000 tonnes	817.00	934.00	114.3
Nitrogenous Fertilisers	do.	3917.00	4415.00	112.7
Phosphatic Fertiliser	do.	1264.00	1319.00	104.4
Vanaspati	'000 tonnes	920.00	1000.00	108.7
Jute Manufacturing	do.	1368.00	1445.00	105.6
Paper and Paper Board	do.	1361.40	1425.00	104.7
Newsprint	do.	197.07	230.00	116.7
Industrial Machinery	Rs. crores	1647.00	1872.00	113.7
Tractors	'000 nos.	85.00	100.00	117.6
Commercial vehicles	do.	96.80	110.00	113.6
Earth moving equipment	Nos.	1627	2200	135.2
Consumer electronics	Rs. crores	642.00	744.00	115.9
Industrial electronics	do.	295.00	440.00	149.2
Communication equipment	do.	593.00	1075.00	181.3
Computer System	do.	125.00	145.00	116.0

1.49 It would be observed from Table 1.4 that the Annual Plan accords high priority to the production of communication equipment which is expected to increase by 81.3 per cent followed by industrial electronics (49.2 per cent), earth moving equipment (35.2 per cent), petroleum products (18.5 per cent), tractors (17.6 per cent), newsprint (16.7 per cent), computer system industry (16 per cent), consumer electronics (15.9 per cent), soda ash (14.3 per cent), industrial machinery (13.7 per cent), commercial vehicles (13.6 per cent), cement (12.7 per cent) and nitrogenous fertilizers (12.7 per cent).

Village and Small Industries

1.50 Recognising the crucial role the Village and Small Industries play in the generation of additional employment and alleviation of poverty, the Annual Plan 1985-86 continues the emphasis on the development of these industries. The programmes have been so designed as to subserve the objectives visualised for the Seventh Plan, namely, the growth and dispersal of industries, improvement in the level of productivity and earnings of workers, creation of avenues of self-employment, augmentation of supply of goods and services through utilisation of local skills and resources, promotion of entrepreneurship and preservation and improvement of craftsmanship. The major thrust in the Annual Plan would be towards the strengthening of infrastructural facilities, development and dissemination of appropriate technology, upgradation of skills consistent with the degree of sophistication of production processes, devising co-

herent marketing strategies and timely supply of requisite inputs.

1.51 With the relaxations announced in the 1985-86 budget in regard to the ceiling for investment in plant and machinery in small scale units and ancillaries, such units are expected to play a more vital role by taking up sophisticated lines of production and adopting modern technologies. Their growth would also be faster.

1.52 In 1985-86, the output of village and small industries is estimated at Rs. 70,734 crores as against Rs. 64,669 crores in 1984-85. Employment in these industries is expected to increase from 28.7 million persons at the end of 1984-85 to 30.6 million persons by the end of 1985-86. Exports of the products of these industries are expected to increase from the estimated level of Rs. 4,558 crores in 1984-85 to Rs. 5,062 crores in 1985-86.

Science and Technology

1.53 Recognising the potential of science and technology for modernisation and development of infrastructure, industry, agriculture and other sectors of the economy, the Annual Plan accords a high priority to updating and modernisation of the existing technology with a view to reducing the cost of production and making Indian goods competitive in the world market. The Annual Plan also lays emphasis on Research and Development efforts with a view to adapting and modifying the imported technology to suit Indian conditions.

Public Distribution System

1.54 The Public Distribution System (PDS) has come to stay as an important instrument of supply management to combat inflation as also to supplement the poverty alleviation programme by making available essential commodities at reasonable prices through fair price shops, especially to the weaker sections of society. An efficient PDS requires nexus between production, procurement, transportation, storage and distribution. Keeping in view the administrative and financial constraints, there is need for following a selective approach in regard to commodities to be made available through PDS. The Central Government has limited its responsibility to distributing seven essential commodities, namely, wheat, rice, sugar, imported edible oils, kerosene oil, soft coke and controlled cloth, through PDS. The State Governments may, however, add to this list other essential commodities e.g., tea, coffee, toilet soap and washing soap, match boxes, books for children, torch cells, razor blades, cycle tyres and tubes as per needs and preferences of the local areas.

1.55 At the centre, an Advisory Council on Public Distribution System has been constituted to review its working from time to time. The States have also set up consumer Advisory Committees at district and tehsil levels in one form or another. Steps are also being taken to further strengthen and improve the infrastructure of PDS. The total number of fair price shops increased from 2.37 lakhs in March 1979 to 3.19 lakhs as on 31-3-1985. The volume of sales through PDS increased from 17.94 million tonnes in 1979 to 24.77 million tonnes in 1984.

1.56 The outlays provided for civil supplies in the plans of States and Union Territories in 1985-86 are Rs. 621 lakhs and Rs. 39.10 lakhs respectively. In addition, an outlay of Rs. 30 lakhs has been provided in the Central sector for strengthening the public distribution system.

Balance of Payments

1.57 The management of the balance of payments in recent years and India's decision to forego the utilization of a portion of IMF loan reflects the effectiveness of the structural adjustment strategy adopted in the Sixth Plan. However, some of the favourable factors, which existed in the Sixth Plan may not be operating with the same force in the Seventh Plan. For example, crude oil production, which had increased by about 18 million tonnes during the Sixth Plan Period, is expected to increase at a much lower rate in the Seventh Plan period. Besides, repayments of IMF loan and external commercial borrowings would increase sharply. Further, recent developments in the world economy have reduced the availability of aid funds for development to a great extent and even if available, their terms have become more stringent. Therefore, to have a manageable balance of payments situation, with a given debt profile, export earnings will have to be boosted to pay for a greater portion of the import requirements.

1.58 The Annual Plan for 1985-86, therefore, envisages measures like creation of a policy environ-

ment which generates stable expectations about the long-term profitability of exports, strengthening of export infrastructure, sustained efforts at efficient import substitution, reducing inflation and effective demand management. The Annual Plan calls for continuation of the policy of giving a very high priority to exports, reducing the dependence on imports of crude oil and petroleum products through increase in indigenous production, gradual switchover to alternative indigenous sources of energy and better utilization of capacity in steel, fertilisers and other industries. The availability of substantial stocks of industrial raw materials and increase in indigenous production of edible oils and sugar would also lead to a decline in imports. However, along with anticipated savings on bulk imports, an increase in essential non-bulk imports in line with the needs of the economy is expected.

1.59 The current import export policy, which will be operative for a three-year period 1985-88, is designed to introduce an environment of continuity and stability in the area of foreign trade. It aims at providing a major thrust towards increased production, both for domestic consumption and exports and also to bring about efficient import substitution.

Fiscal and Monetary Policy

1.60 The deficit at the centre for 1985-86 has been restricted to Rs. 3316 crores, which is lower than the actual deficit in 1984-85. Measures will also be taken during the course of the year to increase revenue collections and effect economies in non-Plan expenditure. The approved Plan outlays of the States are fully matched by resources and it is imperative for them not to take up any additional commitments without ensuring the corresponding availability of additional resources.

1.61 In order to avoid resurgence of inflation, it would be necessary to contain the overall growth of money supply within a reasonable limit. In continuation of earlier measures, some further changes in credit policy have been announced. The threshold for 100 per cent refinance of food credit was increased during 1985 from Rs. 4300 crores to Rs. 5800 crores in four phases—to Rs. 4600 crores from April 5, to Rs. 5000 crores from August 2, to Rs. 5400 crores from August 30, and to Rs. 5800 crores from September 27. Further, because of the need to restrain the overall growth of liquidity in the economy, the statutory liquidity ratio for commercial banks has been raised from 36 to 37 per cent in two phases i.e. to 36.5 per cent from June 8, 1985 and 37 per cent from July 6, 1985.

1.62 Whereas the target of allocating 40 per cent of the bank credit to the priority sectors has been achieved by the banking system collectively certain banks did not achieve this target or the targets of direct advances for agriculture and weaker sections. Stress has been laid on bridging these gaps and also on the need for gearing up the machinery by the banking system so as to achieve the target of credit disbursements under the Integrated Rural Development Programme.

CHAPTER 2

PUBLIC SECTOR PLAN OUTLAY

The Annual Plan for 1985-86 envisages a total public sector outlay of Rs. 32238.56 crores. This represents an increase of 6.86 per cent over the approved outlay of Rs. 30169.37 crores for 1984-85. The maximum step up over the 1984-85 outlay is under Science and Technology Sector (28.35 per cent) followed by Agriculture (27.69 per cent), Special Area Programmes (27.29 per cent), Communications, Information and Broadcasting (10.94 per cent), Transport (10.48 per cent) and Social Services (10.43 per cent). The outlay for the Central Sector is Rs. 18500.00 crores as against Rs. 17351.05 crores in 1984-85. For States and Union Territories, the 1985-86 outlays are respectively Rs. 13097.00 crores and Rs. 641.56 crores as against Rs. 12260.75 crores and Rs. 557.57 crores in the previous year.

2.2 The set up over 1984-85 in the outlay for the Central Sector is 6.62 per cent. For the States and

Union Territories, the respective increases are 6.82 per cent and 15.06 per cent. The largest increase in the Central Plan is in respect of the Agriculture Sector (50.13 per cent) followed by Science & Technology (25.70 per cent), Social Services (12.14 per cent) and Communications, Information and Broadcasting (11.29 per cent).

2.3 In the States' and Union Territories' Plans, the maximum step up is under Science and Technology (89.45 per cent) followed by Special Area Programmes (27.29 per cent), Transport (17.07 per cent) and Agriculture (13.30 per cent).

2.4 The approved outlays for the Centre, States and Union Territories for 1985-86 together with the approved outlays for 1984-85 and percentage step up are given in Table 2.1 :

TABLE 2.1
Annual Plan Outlay 1985-86*

Heads of Development**	(Rs. crores)								
	Annual Plan 1984-85			Annual Plan 1985-86			Percentage increase		
	Centre	States & UTs	Total	Centre	States & UTs	Total	Col. 5 Over Col. 2	Col. 6 Over Col. 3	Col. 7 Over Col. 4
1	2	3	4	5	6	7	8	9	10
1. Agriculture	611.43	952.88	1564.31	917.93	1079.60	1997.53	50.13	13.30	27.69
2. Rural Development	992.63	815.52	1808.15	917.75	738.80	1656.55	-7.54	-9.41	-8.38
3. Special Area Programmes	—	424.56	424.56	—	540.44	540.44	—	27.29	27.29
4. Irrigation & Flood Control	154.00	2527.45	2681.45	168.60	2612.76	2781.36	9.48	3.38	3.73
5. Energy	6048.68	3496.30	9544.98	6569.00	3617.89	10186.89	8.60	3.48	6.73
6. Industry & Minerals	4006.63	589.05	4595.68	4023.04	640.16	4663.20	0.41	8.68	1.47
7. Transport	2524.47	930.24	3454.71	2727.60	1089.06	3816.66	8.05	17.07	10.48
8. Communications, Information & Broadcasting	963.69	16.68	980.37	1072.50	15.15	1087.65	11.29	-9.17	10.94
9. Science & Technology	332.11	14.41	346.52	417.45	27.30	444.75	25.70	89.45	28.35
10. Social Services	1468.21	2866.34	4334.55	1646.47	3140.17	4786.64	12.14	9.55	10.43
11. Others	249.20	184.89	434.09	39.66	237.23	276.89	-84.09	28.31	-36.21
TOTAL	17351.05	12818.32	30169.37	18500.00	13738.56	32238.56	6.62	7.18	6.86

* Subsequent to the formulation of the Annual Plan for 1985-86, the provision made at the Centre for certain sectors has been increased.

** The Heads of Development for some of the Programmes have undergone a change in 1985-86 compared to 1984-85. The list of these programmes with their comparative Head of Development in the Sixth (1980-85) and Seventh (1985-90) Plans, is given in the Appendix.

2.5 The allocation of 1985-86 Plan outlay among the different sectors has been made keeping in view the objectives and priorities indicated in the Approach to the Seventh Plan 1985-90 and the performance of the economy during the Sixth Plan. Accordingly, it takes into consideration the imperative need to increase production, productivity and the growth potential of the economy as well as the need to provide adequate outlays for poverty alleviation programmes which form an important segment of the Plan. However, in view of resource constraint, emphasis has been placed, while deciding sectoral priorities, on completing the projects already under implementation rather than taking up new starts and on providing more for projects which are in an advanced stage of execution and which can be commissioned speedily for the benefits to start flowing to the economy as early as possible.

2.6 The allocation for the energy sector (including power, coal and petroleum) amounts to 31.60 per cent of the total public sector plan outlay for 1985-86. About 67 per cent of the total public sector outlay

is accounted for by four sectors, viz., Energy, Industry & Minerals, Transport and Irrigation & Flood Control. The outlay on social services constitutes 14.85 per cent of the total plan outlay. Agriculture and Rural Development account for 11.34 per cent of the total outlay for 1985-86.

2.7 Table 2.2 below indicates the figures of the approved Plan outlay and the revised estimates for 1984-85. Against an approved outlay of Rs. 30169.37 crores, the revised estimates for the year place the expenditure at Rs. 30232.08 crores. The Centre's expenditure exceeded the approved outlay by Rs. 143.88 crores, while the expenditure of the States and Union Territories fell short by Rs. 81.17 crores. Also, a sum of Rs. 154.45 crores was released to the States for expenditure on works for relief from natural calamities. The sectors where the revised estimates fell short of the approved outlay were Energy (by 11.2 per cent), Science & Technology (by 2.6 per cent), Special Area Programmes (by 2.4 per cent) and Irrigation and Flood Control (by 1.2 per cent).

TABLE 2.2
Annual Plan 1984-85 and Revised Estimates for Centre, States & Union Territories

Heads of Development	(Rs. crores)					
	Annual Plan 1984-85			Revised Estimates for 1984-85		
	Centre	States & UTs	Total	Centre	States & UTs	Total
1	2	3	4	5	6	7
1. Agriculture	611.43	952.88	1564.31	885.45	921.38	1806.83
2. Rural Development	992.63	815.52	1808.15	1002.37	889.81	1892.18
3. Special Area Programmes	—	424.56	424.56	—	414.38	414.38
4. Irrigation & Flood Control	154.00	2527.45	2681.45	153.03	2495.76	2648.79
5. Energy	6048.68	3496.30	9544.98	5317.22	3164.29	8481.51
6. Industry & Minerals	4006.63	589.05	4595.68	4653.21	672.68	5325.89
7. Transport	2524.47	930.24	3454.71	2556.65	1025.38	3582.03
8. Communications, Information & Broadcasting	963.69	16.68	980.37	1003.74	17.25	1020.99
9. Science & Technology	332.11	14.41	346.52	324.96	12.53	337.49
10. Social Services	1468.21	2866.34	4334.55	1554.83	2906.48	4461.31
11. Others	249.20	184.89	434.09	43.47	217.21	260.68
Total	17351.05	12818.32	30169.37	17494.93	12737.15	30232.08
Central Assistance for relief against Natural Calamities	—	—	—	—	154.45	154.45

2.8 The year 1985-86 is the first year of the Seventh Plan. The progress of Plan expenditure during the Sixth Plan (based on actual expenditure for 1980-84 and revised estimates for 1984-85) is given in Table 2.3. This Table reveals that against the Sixth Plan 1980-85 approved outlay of Rs. 97500 crores (at 1979-80 prices) in the public sector, the expenditure during 1980-85 at current

prices from year to year is estimated at about Rs. 109645 crores i.e., an increase of 12.46 per cent. Besides, an amount of Rs. 1175.51 crores was released to the States for expenditure on works for relief from natural calamities. Approved outlays in all the sectors will be utilised in nominal terms, except in Irrigation and Flood Control, where there would be a shortfall of about 10.2 per cent even in nominal terms.

TABLE 2.3

Progress of Sixth Plan Expenditure 1980-85

Heads of Development	Sixth Plan Outlay 1980-85	(Rs. crores)					
		1980-81 (Actuals)	1981-82 (Actuals)	1982-83 (Actuals)	1983-84 (Actuals)	1984-85 (R.E.)	Total (Cols. 3 to 6)
1	2	3	4	5	6	7	8
1. Agriculture	5695.07	981.54	1129.43	1260.96	1427.01	1806.83	6605.77
2. Rural Development	5363.73	1040.19	1100.85	1295.86	1497.89	1892.18	6826.97
3. Special Area Programmes	1480.00	206.41	258.47	335.07	356.85	414.38	1571.18
4. Irrigation & Flood Control	12160.03	1777.30	1948.44	2105.26	2445.35	2648.79	10925.14
5. Energy	26535.44	3828.01	5064.86	6409.64	7276.60	8481.51	31060.62
6. Industry & Minerals	15107.57	2194.45	2777.93	3075.27	3916.37	5325.89	17289.91
7. Transport	12411.97	2162.96	2583.12	2752.78	3075.82	3582.03	14156.71
8. Communications, Information & Broadcasting	3134.26	356.75	576.13	674.80	864.52	1020.99	3493.19
9. Science & Technology	865.20	97.40	148.26	208.09	228.48	337.49	1019.72
10. Social Services	14035.26	2074.65	2487.15	2950.16	3834.70	4461.31	15807.97
11. Others	801.47	112.78	136.21	215.01	163.94	260.68	888.62
Total	97500.00	14832.44	18210.85	21282.90	25087.53	30232.08	109645.80
Central Assistance for relief against Natural Calamities		191.00	162.00	441.96	226.10	154.45	1175.51

2.9 Annexures 2.1 to 2.5 give details of Plan Outlays for 1985-86, revised estimates for 1984-85 and actual expenditure for 1983-84, year-wise and

by heads of development for the Centre, States and Union Territories.

Comparative heads of development during the Sixth and Seventh Plans.

Item	Heads of Development under which shown		1985-86 Annual Plan Outlay
	Sixth Plan	Seventh Plan	
(1)	(2)	(3)	(4)
1. Plantations	Industry and Minerals —Large and Medium Industry	Agriculture	40.46
2. Cooperation	Rural Development	Agriculture	222.31
3. Rural Godowns	Rural Development—IRDP	Agriculture	6.00
4. Preservation of Wild life and Zoological Park, New Delhi,	Others	Agriculture	3.82
5. Land Reforms	Agriculture	Rural Development	68.09
6. National Test Houses	Science & Technology	Industry & Minerals— Large & Medium Industry	3.00
7. Meteorology	Transport	Science & Technology— Scientific Research	15.00
8. INSAT—Space Segment (50%)	Transport	Science & Technology— Scientific Research	12.50
9. Prevention of air & water pollution	Others	Science & Technology— Ecology & Environment	6.00

Annual Plan 1985-86—Plan Outlays

(Rs. crores)

Sl. No.	Heads of Development	Total	Centre	States	U's
1	2	3	4	5	6
I.	Agriculture	1997.53	917.93	1034.59	45.01
	Agricultural Research and Education	123.97	75.00	48.48	0.49
	Crop Husbandry	547.12	202.71	334.88	9.53
	Soil & Water Conservation	133.51	37.52	91.02	4.97
	Animal Husbandry and Dairying	218.86	12.40	112.99	7.50
	Fisheries	86.25	85.97	30.90	4.70
	Forestry & Wild Life	293.81	54.25	228.02	11.54
	Management of Natural Disaster	2.31	0.50	1.81	—
	Agricultural Marketing and Rural Godowns	23.60	14.25	8.86	0.49
	Food, Storage and Warehousing, Food Processing	99.80	95.22	4.42	0.16
	Investment in Agricultural Financial Institutions	205.53	181.00	24.52	0.01
	Cooperation	222.31	87.75	128.94	5.62
	Plantations	40.46	40.46	—	—
II.	Rural Development	1656.55	917.75	733.23	5.57
	Integrated Rural Development and Related Programmes	542.80	269.05	273.75	—
	National Rural Employment Programme	468.59	230.00	238.59	—
	Community Development and Panchayat Institutions	78.58	14.00	61.06	3.52
	Special Employment Programme	91.97	—	91.97	—
	Rural Landless Employment Guarantee Scheme	400.00*	400.00	—	—
	Land Reforms	68.09	4.70	62.42	0.97
	In Rural Energy	6.52	—	5.44	1.08
III.	Special Area Programmes	540.44	—	540.44	—
	Hill Areas	146.93	—	146.93	—
	Western Ghats Development Programme	23.07	—	23.07	—
	Development of backward areas	35.33	—	35.33	—
	Tribal Areas	140.00	—	140.00	—
	North Eastern Council	125.00	—	125.00	—
	Other Area Development Programmes	70.11	—	70.11	—
IV.	Irrigation & Flood Control	2781.36	168.60	2578.98	33.78
	Major and Medium Irrigation	1847.41	13.05	1823.16	11.20
	Minor Irrigation	484.51	15.00	459.89	9.62
	Command Area Development	295.14	107.00	186.22	1.92
	Flood Control including anti-sea Erosion	154.30	33.55	109.71	11.04
V.	Energy	10186.89	6569.00	3523.50	94.39
	Power	5999.84	2395.00	3511.57	93.27
	New & Renewable Sources of Energy	103.05	90.00	11.93	1.12
	Petroleum	3085.00	3085.00	—	—
	Coal	997.00	997.00	—	—
	Energy Development	2.00	2.00	—	—

Sl No.	Heads of Development	Total	Centre	States	UTS
1	2	3	4	5	6
VI.	Industry & Minerals	4663.20	4023.04	620.64	19.52
	Village & Small Scale Industry	549.94	313.00	222.87	14.07
	Large & Medium Industry	4073.26	3670.04	397.77 ¹¹	5.45
	Export-Import Bank of India	40.00	40.00	—	—
VII.	Transport	3816.66	2727.60	968.50	120.56
	Railways	1650.10 ¹³	1650.00	0.10 ²	—
	Roads	970.34	250.00	625.24	95.10 ⁸
	Road Transport	360.48	70.00	281.94 ³	8.64 ⁹
	Ports	281.48	249.61	22.76	5.57
	Light Houses		3.54		
	Shipping	113.22	107.59	0.20	5.43
	Inland Water Transport	49.16	38.00	10.50	0.66
	Civil Aviation	326.05	322.14	3.15	0.76
	Tourism	55.93	26.82	24.71	4.40
	Farakka Barrage	9.90	9.90	—	—
VIII.	Communications, Information and Broadcasting	1087.65	1072.50	13.76	1.39
	Posts Telecommunications }	950.04	950.00	—	0.04 ¹⁰
	Broadcasting } Doordarshan }	99.00	99.00	—	—
	Information and Publicity } Films }	26.11	11.00	13.76	1.35
	INSAT—Space Segment	12.50	12.50	—	—
IX.	Science & Technology	444.75	417.45	26.20	1.10
	Atomic Energy	55.00	55.00	—	—
	Scientific Research including INSAT-Space Segments	108.17	94.10 ^{**}	13.36	0.71
	Scientific and Industrial Research	69.60	69.60	—	—
	Environment and Ecology Prevention and control of air and water pollution and Ganga Action Plan	48.98	35.75	12.84	0.39
	Ocean Development	20.00	20.00	—	—
	Space	140.00	140.00	—	—
	Forensic Science Labs and Police Wireless	3.00	3.00	—	—
X.	Social Services	4786.64	1646.47	2826.49	313.68
	Education ¹⁴				
	(a) General Education	712.05	169.75	475.56	66.74
	(b) Art & Culture	39.13	19.00	16.68	3.45
	(c) Technical Education	127.82	51.25	64.87	11.70
	(d) Youth Affairs & Sports	33.78	11.18	19.36	3.24
	Health including Medical	608.74	200.00	366.96	41.78
	Family Welfare	500.00	500.00	—	—

Annexure—2.1 (Concl'd.)
(Rs. Crores)

Sl. No.	Heads of Development	Total	Centre	States	UTs.
1	2	3	4	5	6
	Housing and Urban Development	697.93	46.12 22.89	535.44 ⁴	93.48
	Water Supply and Sanitation	1138.30	300.00	762.29	76.01
	Welfare of Scheduled Castes, Scheduled Tribes and other Backward Classes	254.40	42.00	209.20	3.20
	Special Central Additive for Scheduled Castes Component Plans	165.00	165.00	—	—
	Social and Women's Welfare	135.17	100.00	31.40	3.77
	Nutrition	313.37	0.78	305.38	7.21
	Labour and Labour Welfare	60.95	18.50	39.35	3.10
XI.	Others	276.89	39.66	230.67	6.56
	Statistics	20.57	11.55	7.98	1.04
	Rehabilitation of Displaced Persons	24.50	23.50	1.00 ⁵	—
	Planning Machinery	12.56	1.76	10.30	0.50
	District Planning*	74.25	—	74.00	0.25
	Stationery and Printing	11.74	1.00	9.55	1.19
	Public Works	122.63	—	120.02	2.61
	Training for Development	2.80	0.80	1.45	0.55
	Public Distribution System	6.90	0.30	6.21	0.39
	Official Language-Hindi	0.75	0.75	—	—
	Others/Unallocated	0.19	—	0.16 ⁶	0.03 ¹²
	Grand Total	32238.56	18500.00	13097.00	641.56

- 1 Includes Rs.1.76 crores for "Weight & Measures."
- 2 For 'Konkan Railways'.
- 3 Include Rs. 0.05 crore for 'Inter-Model Transport Studies' and Rs. 0.25 crore for 'City Bus Terminal and Parking'.
- 4 Includes Rs.39.65 crores for "State Capital Projects."
- 5 For "Rehabilitation of repatriates from Sri Lanka."
- 6 Includes Rs.0.13 crore for "National Saving" and Rs.0.03 crore for "Parliamentary Affairs".
- 7 Includes Rs.0.28 crore for "Weight and Measures".
- 8 Includes Rs. 0.10 crore for "Ropeway".
- 9 Includes Rs. 0.25 crore for "Inter-Model Transport Studies and Rs. 0.07 crore for "Motor Vehicle Wing".
- 10 For "Radio Telephone Link" in Lakshadweep
- 11 Includes Rs. 9.50 crores for "State Capital Projects".
- 12 Includes Rs.0.01 crore for "Small Saving Schemes" and Rs.0.02 crore for "Strengthening of A/cs and Goa Gazetteers.
- 13 Does not include additional outlay of Rs. 400 crores subsequently agreed to.
- 14 Excludes Rs. 108 crores subsequently agreed to.
- * Excludes Rs. 100 crores subsequently provided for construction of houses for SCs and STs.
- ** Includes Rs. 1.50 crores for Flood Plain zoning.

Head/Sub-Head of Development	Andhra Pradesh	Assam	Bihar	Gujarat	Haryana	Himachal Pradesh	Jammu & Kashmir	Karnataka	Kerala	Madhya Pradesh	Maha-rashtra
1	2	3	4	5	6	7	8	9	10	11	12
I. Agriculture and Allied Services											
Research and Education	160	700	350	397	350	110	290	125	200	73	506
Crop Husbandry*	996 ⁴	2035 ¹⁸	1502	1335	980	586	1000	1682	2146	2500	3270
Soil & Water Conservation	80	280	400	462	281	210	225	360	170	765	2434
Animal Husbandry	1190	620	400	311	415	108	500	210	210	506	965
Dairy Development	170	224	250	28	103	70	158	279	125	94	848
Fisheries	442	217	185	475	168	50	85	359	534	157	300
Forests	865	1500	700	2141	1145	1229	673	1219	1064	2100	1929
Investment in Agricultural Financial institutions	400	25	132	74	280	13	8	232	150	13	142
Marketing	25	84	190	14	—	27	91	5	10	36	30
Storage and Warehousing	20	35	8	3	63	—	76	19	10	—	35
Total (I)	2348	5720	4117	5240	3785	2403	3106	4490	4619	6244	10459
II. Rural Development											
Integrated Rural Development Programmes (IRDP)	1332	1000	2692	808	221	155	274	1343	675	2132	1547
National Rural Employment Programme (NREP)	2270	700	3648	740	196	138	170	1080	1045	1971	1826
Drought Prone Area Programme (DPAP)	495	—	334	315	67	—	97	538	—	360	505
Other Programmes	—	—	—	49 ⁵¹	—	—	—	—	—	—	84 ⁴
Community Development & Panchayats	68	200	675	80	296	96	170	30	249	380	10
Land Reforms	70	225	1014	100	48	240	61	106	150	366	80
Integrated Rural Energy Programme	10	10	50	30	30	50	20	20	25	35	50
Special Programmes for Area Dev. (State Programmes)											
(i) Development of Backward Areas	—	50 ⁶⁴	70 ¹	—	250 ⁶	—	1888 ¹³	—	50	—	20 ⁴⁵
(ii) Others	—	52 ¹⁹	—	—	—	—	—	—	22 ¹⁷	—	6400 ⁴⁹
Total (II)	4245	2237	8485	2122	1108	679	2680	3117	2216	5244	10446
III. Cooperation	333	700	500	760	625	140	124	954	300	1423	1900
IV. Irrigation and flood control											
(a) Major & Medium Irrigation	17179	2100	20000	15136	12081	164	1308	9738	5950	21744	23785
(b) Minor Irrigation	3370	2950	4600	1530	245	565	850	2630	400	7339	4900
(c) Command Area Development	1083	100	500	320	2260	29	100	926	75	2430	6429
(d) Flood Control Projects (including Anti-Sea Erosion)	500	645	2400	170	1200	80	400	65	125	100	15
Total—(IV)	22132	5795	27500	17156	15786	838	2658	13359	6550	31613	35129

Agreed Outlays—States

Annexure 2.2
(Rs. lakhs)

Mani- pur	Megha- laya	Naga- land	Orissa	Punjab	Rajas- than	Sikkim	Tamil Nadu	Tripura	Uttar Pradesh	West Bengal	Total All States	Head/Sub-Head of Development
13	14	15	16	17	18	19	20	21	22	23	24	1
												I. Agricultural and Allied Services
52	11	40	90	250	75	13	405	15	321	315	4848	Research and Education
260	290 ²⁸	237 ¹⁸	1700 ¹⁸	1542	699	260	4550	447 ¹⁸	4222	1430	33669	Crop Husbandry*
169	320	132	150	545	50	180	344	140	1210	195	9102	Soil and Water Conservation
82	120	110	300	445	369	135	315	200	700	565	7776	Animal Husbandry
13	20	17	30	49	200	15	30	35	455	310	3523	Dairy Development
77	40	35	290	80	31	20	209	126	185	1000	5065	Fisheries
170	526	218	900	500	600	160	1608	375	2350	830	22802	Forests
2	1	—	80	325	120	—	50	10	375 ⁶⁵	20	2452	Investment in Agricultural Financial Institutions
2	18	6	20	5	1	9	15	70	48	180	886	Marketing
8	6	4	12	25	5	8	10	15	25	55	442	Storage and Warehousing
835	1352	799	3572	3766	2150	800	7536	1433	9891	4900	90565	Total (I)
												II. Rural Development
123	50	125	1256	300	794	20	1755	130	3650	1715	22097	Integrated Rural Development Programme (IRDP)
69	48	33	830	316	1000	25	2050	80	3850	1774	23859	National Rural Employment Programme (NREP)
—	—	15 ⁸	250	—	180	—	225	—	642	218	4227	Drought Prone Area Programme (DPAP)
—	10 ³⁹	10 ³⁹	500 ²⁴	—	314 ³¹	—	—	160 ²⁷	—	—	1051	Other Programmes
60	60	330	148	409	278	15	600	145	1642	165	6106	Community Development & Panchayats
25	30	35	765	—	35	20	10	84	1750	1028	6242	Land Reforms
8	10	4	35	17	15	10	30	—	75	10	544	Intoeegrated Rural Energy Programme (IREP)
												Special Programme for Area Dev. (State Programmes)
—	—	100	—	—	—	—	—	—	325 ⁵⁷	780	3533	(i) Development of Backward Areas
—	190 ⁴⁰	35 ⁶⁰	—	112 ³⁶	—	—	—	—	—	200 ²⁵	7011	(ii) Others
285	398	673	3784	1154	2616	90	4670	599	11934	5890	74670	Total-(II)
50	105	39	800	1007	650	45	261	120	1158	900	12894	III. Cooperation
												IV. Irrigation and flood control
1110	10	—	9070	4923	10013	10	5100	435	18510	3950	182316	(a) Major & Medium Irrigation
170	170	259	2200	622	721	135	905	300	9628	1500	45989	(b) Minor Irrigation
50	—	—	150	600	1500	—	720	—	1200	150	18622	(c) Command Area Development
120	20	—	300	802	259	15	235	100	1420	2000	10971	(d) Flood Control Projects (incl Anti Sea Erosion)
1450	200	259	11720	6947	12493	160	6960	835	30758	7600	257898	Total—(IV)

Head/Sub-Head of Development	Andhra Pradesh	Assam	Bihar	Gujarat	Haryana	Himachal Pradesh	Jammu & Kashmir	Karnataka	Kerala	Madhya Pradesh	Maharashtra
1	2	3	4	5	6	7	8	9	10	11	12
V. Power											
(i) Power	17000	12227	15800	19157	13300	5842	4705	14724	6330	43591	40483
(ii) New & Renewable Sources of Energy (NRSE)	15	10	200	170	45	50	29	12	25	220	50
Total—(V)	17015	12237	16000	19327	13345	5892	4734	14736	6355	43811	40533
VI. Industry and Minerals											
Village and Small Industries	1373	800	1200	2500	487	150	650	3035	913	1766	1239
Medium and Large Industries	2400	1110	1600	1300	296	300	600	1729	1983	1645	5400
Mining	620	69	500	300	15	18	60	218	54	150	61
Total—(VI)	4393	1979	3300	4100	798	468	1310	4982	2950	3561	6700
VII. Transport											
Minor Ports and Light Houses	110	—	—	405	—	—	—	547	180	—	200
Shipping	—	—	—	—	—	—	—	—	—	—	—
Civil Aviation	—	—	10	—	39	100	—	—	—	56	35
Roads and Bridges	1852	2300	6700	2739	1450	2500	1740	2498	3120	4720	5680
Road Transport	4077	327	490	1447	1200	300	444	1374	500	859	6524
Inland Water Transport	35	150	5	70	—	5	500	10	114	—	16
Tourism	44	64	100	67	138	125	600 ¹⁴	138	130	165	84
Others	—	—	—	—	—	5 ⁸	—	—	—	—	10 ⁴⁶
Total—(VII)	6118	2841	7305	4728	2827	3035	3284	4567	4044	5800	12549
VIII. Scientific Services and Research											
S & T Programmes	50	40	40	5	25	16	20	50	390	106	30
Environmental Programmes	55	20	5	3	130	—	10	20	5	517	10
Water Pollution Control	30	10	20	7	—	4	10	26	45	—	20
Total—(VIII)	135	70	65	15	155	20	40	96	440	623	60
IX. Social and Community Services											
Education											
General Education	2670	2723	5600	1000	1849	500	1012	2192	650	3815	4081
Art and Culture	112	150	33	50	50	40	60	143	90	174	160
Technical Education	300	300	150	252	300	90	100	96	250	335	1622
Sports & Youth Services	—	62	50	14	100	100	90	103	100	63	190
Sub-Total (Education)	3082	3235	5833	1316	2299	730	1262	2534	1090	4387	6053
Medical & Public Health	1999	1500	2788	1332	1355	510	1380	2081	1050	2360	5273
Sewerage and Water Supply	3800	2500	3065	4082	2610	1580	3272	3280	2230	5054	21281
Housing	5020	632	1000	1575	609	380	392	2173	975	1551	3451
Police Housing	125	200	1064	190	120	15	200	150	25	62	300
Urban Development	1495	250 ²⁰	300	393	400	185	700	500	440	1140	2500
State Capital Projects	—	—	—	520	—	—	—	—	—	500	—
Information and Publicity	68	50	40	223	85	20	32	103	61	49	150
Labour & Labour Welfare	161	120	85	989	65	20	60	308	83	114	870
Special Employment Schemes (State Programmes)	400	—	—	146	4	—	60	241	—	41	8130 ⁴⁷
Welfare of SC, ST and Other Backward Classes	5478	392	1238	1763 ⁵²	446	141 ⁹	90	931	415	2458	1700
Social Welfare	485	70	51	139 ⁵³	137	41 ¹⁰	41	485	93	235 ³³	126
Nutrition	372	120	558	11272	429	30	150	2445	538	608	944
Total—(IX)	22485	9069	16022	23940	8559	3652	7639	15231	7000	18559	50778

Annexure 2.2 (Contd.)
(Rs. lakhs)

Manipur	Meghalaya	Nagaland	Orissa	Punjab	Rajasthan	Sikkim	Tamil Nadu	Tripura	Uttar Pradesh	West Bengal	Total all States	Head/Sub-head of Development
13	14	15	16	17	18	19	20	21	22	23	24	I
V. Power												
626	1330	415	11431	24440	12269	571	30000	960	59486	16470	351157	(i) Power
12	10	6	80	18	16	10	30	40	125	20	1193	(ii) New & Renewable Sources of Energy (NRSE)
638	1340	421	11511	24458	12285	581	30030	1000	59611	16490	352350	Total (V)
VI. Industry and Minerals												
164	110	152	800	514	622	70	1842	200	2000	1700	22287	Village and Small Industries
130	155	180	1500	1390	895	70	2206	90	6790	3960	35729	Medium and Large Industries
10	40	128	400	4	283	30	200	2	570	140	3872	Mining
304	305	460	2700	1908	1800	170	4248	292	9360	5800	61888	Total (VI)
VII. Transport												
—	—	—	705	—	—	—	129	—	—	—	2276	Minor Ports and Light Houses
—	—	—	—	—	—	—	20	—	—	—	20	Shipping
—	—	—	20	20	—	—	—	—	5	30	315	Civil Aviation
900	1050	1126	2269	1280	1400	600	2350	900	13850	1500	62524	Roads and Bridges
80	160	121	750	1200	450	130	2307	80	3174	2160	28154	Road Transport
—	—	—	25	—	—	—	—	—	10	110	1050	Inland Water Transport
25	40	23	100	20	150	26	17	15	330	70	2471	Tourism
25 ³⁵	—	—	—	—	—	—	—	—	—	—	40	Others
1030	1250	1270	3869	2520	2000	756	4823	995	17369	3870	96850	Total (VII)
VIII. Scientific Services and Research												
25	15	3	40	53	15	2	86	75	200	50	1336	S & T Programmes
—	3	1	10	15	35	8	50	7	100	15	1019	Environmental Programmes
10	—	—	20	—	—	—	33	—	—	30	265	Water Pollution Control
35	18	4	70	68	50	10	169	82	300	95	2620	Total—(VIII)
IX. Social and Community Services Education												
370	300	316	2200	1188	3073	525	4747	750	3650	4345	47556	General Education
25	12	43	50	75	75	25	115	6	85	95	1668	Art and Culture
25	18	17	200	260	124	—	516	7	1150	375	6487	Technical Education
80	30	40	170	54	28	—	92	60	225	285	1936	Sports and Youth Services
500	360	416	2620	1577	3300	550	5470	823	5110	5100	57647	Sub-Total (Education)
230	260	300	1010	1555	1656	157	2000	250	5250	2400	36696	Medical and Public Health
710	885	460	1316	1551	2550	440	10000	520	3743	1300	76229	Sewerage and Water Supply
160	90	238	599	910	650	85	3067	200	2707	800	27264	Housing
40	200	158	100	250	40	—	250	60	512	2000	6061	Police Housing
80	56 ⁴¹	177	120	818	75	35	3000	140	2030	1420 ²⁶	16254	Urban Development
50	—	—	—	—	40	—	—	—	—	2855	3965	State Capital Projects
20	10	17	50	65	30	10	17	25	161	90	1376	Information and Publicity
20	15	20	105	70	37	10	399	20	302	55	3935	Labour and Labour Welfare
80	—	30	—	—	—	—	—	—	—	65	9197	Special Employment Schemes (State Programmes)
80	1	—	300	500	140	25	1412	730 ²⁸	2120	560	20920	Welfare of SC, ST and other Backward Classes
40 ²⁹	32	31	40	120	30	13	400	41 ²⁹	300	190	3140	Social Welfare
30	46	66	200	252	108	45	10337	275	843	870	30538	Nutrition
2040	1955	1920	6460	7668	8656	1370	36352	3084	23078	17705	293222	Total—(IX)

Head of/Sub-Head of Development	Andhra Pradesh	Assam	Bihar	Gujarat	Haryana	Himachal Pradesh	Jammu & Kashmir	Karnataka	Kerala	Madhya Pradesh	Maharashtra
1	2	3	4	5	6	7	8	9	10	11	12
X. Economic Services											
Secretariat Economic Services	100	24 ²¹	104 ²	13	19	15 ¹¹	25	93	92	80 ³⁴	66 ⁴⁸
Economic Advice and Statistics	46	20	36	29	12	5	—	28	106	15	60
Weights and Measures	5	15	11	24	6	3	5	—	18	3	—
District Planning	—	—	160	2910 ⁵⁴	550	100	—	400 ¹⁶	—	—	100
Others	—	—	—	—	—	—	—	—	—	—	—
Total—(X)	151	59	311	2976	587	123	30	521	216	98	226
XI. General Services											
Stationary and Printing	45	31	20	—	45	80	30	47	100	24	—
Public Works	600	250 ²²	1472	—	350	300	350	3000	700	—	1210
Civil Supplies	—	10	—	18	—	60	—	—	10	—	—
Training	—	2 ²³	5 ³	18 ⁵⁵	30 ⁷	10 ¹²	15 ¹⁵	—	—	—	10 ⁵⁰
Others	—	—	—	—	—	—	—	—	—	—	—
Total—(XI)	645	293	1497	36	425	450	395	3047	810	24	1220
Grand Total	81000 ⁵	41000	85100	80400	48000	17700	26000	65100	35500	117000	170000

*Including 'Dry Land/Rainfed Farming' and 'Land Stock Improvement'.

- 1 For 'Autonomous Development Authority'.
- 2 Includes Rs. 8 lakhs for 'Evaluation' and Rs. 28 lakhs for 'Monitoring of 20 Point Programme'.
- 3 For 'Manpower Training'.
- 4 Includes provision for 'Failed Well Subsidy Scheme (Rs. 200 lakhs), Disaster Management (Rs. 181 lakhs) and 'Dry Land Farming (Rs. 50 lakhs).
- 5 Excluding 'Tamil Nadu's Contribution for Telugu Ganga'
- 6 For 'Mewat Area Development'.
- 7 For 'Haryana Institute of Public Administration'.
- 8 For 'Inter Model Transport Study'.
- 9 Includes Rs. 35 lakhs for 'Nucleus Budget for Tribal Areas' and Rs. 2 lakhs for 'Tribal Development Machinery'.
- 10 Includes Rs. 10 lakhs for 'Ex-Servicemen's Corporation'.
- 11 Includes Rs. 5 lakhs for 'Institutional Finance and Public Enterprises Organisation'.
- 12 For 'Himachal Institute of Public Administration'.
- 13 For 'Ladakh Sub-Plan'.
- 14 Includes provision for parks and Gardens.
- 15 For 'Institute of Management for Public Administration'.
- 16 For 'District Level Sub-Plan'.
- 17 For 'Training programme and social inputs in area Development'.
- 18 Includes assistance for SF/MF also.
- 19 Includes Rs. 50 lakhs for Border Area Development programme and Rs. 2 lakhs for grants-in-aid to Voluntary organisations in hill areas.
- 20 Includes Rs. 50 lakhs for fire protection scheme.
- 21 Includes Rs. 4 lakhs for public enterprises organisation.
- 22 Includes Rs. 100 lakhs for Development programme under Jail Department.
- 23 For Administrative Staff College.
- 24 For 'Economic Rehabilitation of Rural Poor'.
- 25 For 'West Bengal Comprehensive Development Corporation Project'.
- 26 Includes Rs. 20 lakhs for 'Zoo Public Latrines'.
- 27 For 'State Rural Employment Programme'.
- 28 Includes Rs. 500 lakhs for Tripura Tribal Council.
- 29 Includes Rs. 2 lakhs for Legal aid and advice.
- 30 For National Savings.
- 31 For DWCR, Massive programme and Social Inputs in Area Development.
- 32 Includes Rs. 55 lakhs for computerisation and Modernisation.
- 33 Includes Rs. 29 lakhs for Legal aid to poor and Sanjay Gandhi Institute for Youth Leadership.

Annexure 2.2—(Contd.)
(Rs. lakhs)

Mani- pur	Megha- laya	Naga- land	Orissa	Punjab	Rajas- than	Sikkim	Tamil- Nadu	Tripura	Uttar Pradesh	West Bengal	Total all States	Head/Sub-Head of Development
13	14	15	16	17	18	19	20	21	22	23	24	1
												X. Economic Services
9	8	18	20	737	8532	12	4	29	159	48	1030	Secretariat Economic Services
9	8	14	35	29	15	7	12	19	277	16	798	Economic Advice and Statistics
2	8	10	3	8	—	4	—	4	—	16	176	Weights and Measures
60	50 ⁴²	—	100	—	—	—	—	—	—	2970	7400	District Planning
—	—	—	—	—	—	—	—	—	13 ³⁰	—	13	Other General Economic Service
80	74	42	163	38	100	23	16	52	481	3050	9417	Total—(X)
												XI. General Services
8	40	22	100	50	20	5	55	18	200	15	955	Stationery and Printing
231	453 ⁴³	555 ⁶¹	200	385	180	80	443	70	—	1173	12002	Public Works
14	10	8	51	1	—	10	337	20	60	12	621	Civil Supplies
—	—	25 ⁶²	—	30	—	—	—	—	—	—	145	Training
—	—	3 ⁶³	—	—	—	—	100 ⁵⁶	—	—	—	103	Others
253	503	613	351	466	200	95	935	108	260	1200	13826	Total—(XI)
7000	7500	6500	45000	50000	43000	4100	96000	8600	164200	67500	1266200	Grand Total

34 Includes Rs. 30 lakhs for Computer Centre.

35 For City Bus Terminal and Parking.

36 For Interest Subsidy (State programme).

37 Including Rs. 2 lakhs for Economic Coordination and 20-Point Programme.

38 Includes Rs. 60 lakhs for SF/MF.

39 For Pilot Project for Village Development.

40 For Border Area Development programme.

41 Includes Rs. 11 lakhs for Aid to Municipalities.

42 For District Councils.

43 Includes Rs. 203 lakhs for Upgradation of Standard of Administration.

44 For Share capital to Regional Rural Development Bank.

45 For 'Area Development in Ratnagiri.'

46 For 'Konkan Railway.'

47 Includes Rs. 100 lakhs for 'Sanjay Gandhi Swayamban Yojana' and Rs. 30 lakhs for payment of Honorarium to Educated Un-employed for part-time employment.

48 Includes Rs. 10 lakhs for assistance for Studies in Rural Development and Regional Planning.

49 For 'Felt Needs Programmes of districts'.

50 For 'Maharashtra Institute of Development Administration.'

51 Includes provision for 'Strengthening and Supporting Special Programme Irqn. (Rs. 12 lakhs), 'Strengthening of training facilities for Rural Development (Rs. 2 lakhs) 'Project Linkage (Rs. 7 lakhs), Loans to Antyodaya Families (Rs. 8 lakhs), Regional Rural Banks (Rs. 11 lakhs) and 'Integrated Village Environmental Improvement Programme (Rs. 9 lakhs).

52 Includes Rs. 19 lakhs for 'Administrative Machinery for TASP'.

53 Includes Rs. 49 lakhs for Social Inputs.

54 For 'Decentralised District Planning'.

55 For 'Training of Development Personnel'.

56 For 'Rehabilitation of repatriates from Sri Lanka'.

57 For Special Programme for Area Development.

58 For Special Water Shed Management Programme.

59 For Promotion of Voluntary Scheme and Social Action Programme.

60 For Special Development Scheme.

61 Includes Rs. 137 lakhs for 'Upgradation of Administration.'

62 For Administrative Institute.

63 For Parliamentary Affairs.

64 For Char Areas.

65 Includes Rs. 25 lakhs for 'Development of Financial Institutions'.

Annual Plan 1985-86—Agreed Outlay—Union Territories

(Rs. lakhs)

Head/Sub-Head of Development	Code No.	Andaman Nicobar Island	Arunachal Pradesh	Chandi- garh	Dadra & Nagar Haveli	Delhi	Goa, Daman & Diu	Laksha- dweep	Mizoram	Pondi- cherry	Total
1	2	3	4	5	6	7	8	9	10	11	12
I. Agriculture & Allied Services											
Research & Education	01010	—	15.00	—	—	5.00	20.00	—	2.20	7.00	49.20
Crop Husbandry	01020	60.00	289.00	1.63	26.85	85.00	120.00	60.00	231.00	80.00@	953.48
Soil and Water Conservation	01030	41.00	224.00	3.20	30.00	2.00	29.00	—	140.00	28.00	497.20
Animal Husbandry	01040	71.00	134.40	20.30	15.00	136.00	84.00	35.00	150.00	54.00	699.70
Dairy Development	01050	4.00	19.06	—	3.65	—	16.00	—	5.00	3.00	50.71
Fisheries	01060	60.00	39.20	4.54	0.75	18.00	100.00	110.00	27.00	110.00	469.49
Forests	01070	175.00	464.80	35.82	70.60	70.00	110.00	—	215.20	13.00	1154.42
Investment in Agr. Fin. Institutions	01080	—	—	—	—	—	1.00	—	—	—	1.00
Marketing	01090	—	15.74	—	—	9.00	4.00	—	15.00	5.00	48.74
Storage and Warehousing	01100	—	—	—	—	—	16.00	—	—	0.15	16.15
Total (I)	01999	411.00	1201.20	65.49	146.85	325.00	500.00	205.00	785.40	300.15	3940.09
II. Rural Development											
Community Development & Panchayats	02060	3.00	70.70	35.31	11.75	25.00	46.00	29.80	60.00	70.00	351.56
Land Reforms	02070	3.00	41.35	—	2.00	—	29.00	0.20	15.00	6.00	96.55
Integrated Rural Energy Programme (IREP)	02091	10.00	5.00	—	3.00	65.00	17.00	2.00	2.00	4.00	108.00
Total (II)	02999	16.00	117.05	35.31	16.75	90.00	92.00	32.00	77.00	80.00	556.11
III. Cooperation	03999	15.00	110.00	31.00	7.60	126.00	70.00	18.00	44.00	140.00	561.60
IV. Irrigation & Flood Control											
(a) Major & Medium Irrigation Project	04099	—	11.00	—	100.00	2.00	960.00	—	7.50	40.00	1120.50
(b) Minor Irrigation	04100	40.00	430.00	20.00	25.00	122.00	167.00	—	75.00	83.00	962.00
(c) Command Area Dev.	04110	—	—	—	100.00	—	92.00	—	—	—	192.00
(d) Flood Control Projects (including Anti-Sea Erosion)	04120	—	38.00	—	1.00	1000.00	20.00	5.00	—	40.00	1104.00
Total—(IV)	04999	40.00	479.00	20.00	226.00	1124.00	1239.00	5.00	82.50	163.00	3378.50
V. Power											
(i) Power	05010	389.00	630.00	575.84	60.00	5900.00	634.00	58.50	680.00	400.00	9327.34
(ii) New & Renewable Sources of Energy (NRSE)	05060	22.00	15.00	4.00	5.00	35.00	19.00	3.00	5.00	4.00	112.00
Total—(V)	05999	411.00	645.00	579.84	65.00	5935.00	653.00	61.50	685.00	404.00	9439.34
VI. Industry & Minerals											
Village & Small Industries	06010	33.00	100.00	61.40	25.60	789.00	50.00	23.00	200.00	125.00	1407.00
Medium and Large Industries	06020	—	23.00	3.00	—	50.00	170.00	—	40.00	65.00	351.00
Mining	06030	—	2.00	—	—	160.00	1.00	1.00	1.65	—	165.65
Total (VI)	06999	33.00	125.00	64.40	25.60	999.00	221.00	24.00	241.65	190.00	1923.65
VII. Transport											
Minor Ports and Light Houses	07010	350.00	—	—	—	—	6.00	3.00	—	198.00	557.00
Shipping	07020	497.94	—	—	—	—	—	45.00	—	—	542.94
Civil Aviation	07030	—	46.00	—	—	—	—	30.00	—	0.10	76.10
Roads and Bridges	07040	450.00	2200.00	33.00	146.00	4755.00	829.00	45.70	880.00	170.00	9508.70
Road Transport	07050	109.00	110.00	150.00	—	145.00	193.00	—	115.00	10.00	832.00
Inland Water Transport	07060	—	—	—	—	—	60.00	—	6.00	—	66.00
Tourism	07070	20.00	16.00	129.00	2.50	100.00	112.00	14.00	29.00	18.00	440.50
Others	07080	5.00	1.00	—	—	—	10.00	14.30	7.00	—	37.30
Total (VII)	07999	1431.94	2373.00	312.00	148.50	5000.00	1210.00	152.00	1037.00	396.10	12060.54

Head/Sub-Head of Development	Code No.	Andaman & Nicobar Islands	Arunachal Pradesh	Chandigarh	Dadra & Nagar Haveli	Delhi	Goa, Daman & Diu	Lakshadweep	Mizoram	Pondicherry	Total
1	2	3	4	5	6	7	8	9	10	11	12
VIII. Scientific Services & Research											
S & T Programmes	08010	4.20	2.50	4.00	1.70	16.60	24.00	10.00	2.00	6.00	71.00
Environmental Programme (excluding water pollution control)	08020	3.00	1.50	—	3.00	19.00	8.00	—	1.00	1.50	37.00
Water Pollution Control	08030	—	—	—	—	1.40	—	—	—	0.50	1.90
Total (VIII)	08999	7.20	4.00	4.00	4.70	37.00	32.00	10.00	3.00	8.00	109.90
IX. Social & Community Services											
Education											
General Education	09010	400.00	931.00	301.00	80.20	3787.00	400.00	56.00	298.50	419.50	6673.20
Art & Culture	09020	3.00	40.00	31.00	3.00	150.00	50.00	10.00	17.50	40.00	344.50
Technical Education	09030	30.00	20.00	105.00	0.20	740.00	120.00	—	25.00	130.00	1170.20
Sports & Youth Services	09040	15.00	10.00	70.00	9.00	70.00	55.00	22.00	20.00	54.00	325.00
Sub-Total (Education)	09099	448.00	1001.00	507.00	92.40	4747.00	625.00	88.00	361.00	643.50	8512.90
Medical & Public Health	09129	65.00	250.00	240.00	27.75	2900.00	303.00	22.00	240.00	130.00	4177.75
Sewerage & Water Supply	09130	236.00	550.00	501.06	25.00	4700.00	850.00	34.00	555.00	150.00	7601.06
Housing	09140	85.00	172.50	464.00	25.00	2350.00	140.00	75.00	100.00	265.00	3676.50
Police Housing	09150	40.00	130.00	130.00	5.00	550.00	50.00	6.00	60.00	—	971.00
Urban Development	09160	28.00	2.00	37.00	1.00	3400.00	94.00 ⁷	—	53.00	136.00	3751.00
State Capital Projects	09170	—	—	750.00	—	—	—	—	200.00	—	950.00
Information & Publicity	09180	5.00	22.00	9.00	2.00	35.00	20.00	12.00	20.00	10.00	135.50
Labour & Labour Welfare	09190	4.00	16.00	18.50	21.40	102.00	110.00	1.00	12.00	25.00	309.90
Welfare of SC, ST & OBCs	09210	1.75	—	17.80	—	210.00	15.00	—	—	75.00	319.55
Social Welfare	09220	10.00	14.95	40.00 ⁶	1.65	224.00	15.00	6.00	35.00	30.00	376.60
Nutrition	09230	12.50	27.50	48.50	8.50	523.00	20.00	5.00	33.00	43.00	721.00
Total (IX)	09999	935.25	2185.95	2762.86	210.20	19741.00	2242.00	249.00	1669.00	1507.50	31502.76
X. Economic Services											
Sectt. Economic Services	10010	0.86	5.75	—	0.75	25.00	5.50	2.00	5.00	5.00	49.86
Economic Advice & Statistics	10020	0.75	11.00	0.40	1.25	37.00	44.00	—	7.45	1.85	103.70
Weights and Measures	10030	—	6.00	0.70	—	10.00	5.00	0.50	4.00	2.00	28.20
District Planning	10031	—	—	—	—	—	—	—	25.00 ¹¹	—	25.00
Other General Economic Services	10040	—	1.00 ⁴	—	—	—	—	—	—	—	1.00
Total—(X)	10999	1.61	23.75	1.10	2.00	72.00	54.50	2.50	41.45	8.85	207.76
XI. General Services											
Stationery and Printing	11010	5.00	17.25	—	1.50	15.00	2.00	6.00	44.00	28.40	119.15
Public Works	11020	40.00	—	—	10.00	—	83.00	—	55.00	73.00	261.00
Civil Supplies	11030	3.00	8.80	—	0.30	1.00	—	—	25.00	1.00	39.10
Training	11031	—	10.00	—	—	35.00 ¹³	—	—	10.00 ¹²	—	55.00
Others	11040	—	—	—	—	—	1.50 ⁸	—	—	—	1.50
Total—(XI)	11999	48.00	36.05	—	11.80	51.00	86.50	6.00	134.00	102.40	475.75
GRAND TOTAL	99999	3350.00	7300.00	3876.00	865.00	33500.00	6400.00	765.00	4800.00	3300.00	64156.00

@Includes provision for 'Land Stocks Improvement' also.

¹For Inter Model Transport Studies.

²Includes Rs. 25 lakhs for Resettlement of villages.

³For Ropeway.

⁴For Small Savings Scheme.

⁵Including provision for wireless sets and equipments.

⁶Includes Rs. 5 lakhs for welfare of Ex-Servicemen.

⁷Including Rs. 6 lakhs for Fire Services.

⁸Includes Rs. 0.50 lakh for Goa Gazetters, and Rs. 1 lakh for strengthening of Accounts and Audit cadre in Directorate of Accounts.

⁹Includes provision for Master Plan 'for preparing Inter-Model Transport Study (Rs. 10 lakhs)' and 'Radio-Telephone Link (Rs. 4.30 lakhs)'.

¹⁰For 'Motor Vehicle Wing'.

¹¹For 'District Councils'.

¹²For 'Administrative Training Institute'.

¹³For 'Staff Training College'.

Annual plan 1984-85—Revised estimates

Annexure 2.4

(Rs. crores)

Heads of Development	Centre	States	UTs.	Total
I. Agriculture	885.45	887.63	33.75	1806.83
Agricultural Research and Education	73.00	67.58	2.77	143.35
Crop Husbandry	87.49	272.00	5.70	365.19
Soil and Water Conservation	36.37	92.74	4.25	133.36
Animal Husbandry	12.42	81.82	5.80	100.04
Dairying	88.32	30.55	0.48	119.35
Fisheries	32.29	46.42	3.11	81.82
Forestry	35.61	199.34	9.42	244.37
Land Reforms	6.45	56.42	0.79	63.66
Management of Natural Disasters	—	—	—	—
Agricultural Marketing	8.64	8.60	0.34	17.58
Food, Storage and Warehousing	84.23	7.86	1.09	193.18
Investment in Agricultural Financial Institutions	320.63	24.30	—	344.93
Small and Marginal Farmers	100.00	—	—	100.00
II. Rural Development	1002.37	881.07	8.74	1892.18
Integrated Rural Development and related Programmes	272.53	—	—	—
Rural Godowns	5.00	296.50	—	574.03
National Rural Employment Programme	236.00	230.95	—	466.95
Community Development & Panchayat Institutions	3.68	93.66	3.61	100.95
Cooperation	85.16	125.08	5.13	215.37
Rural Employment Guarantee Scheme	400.00	—	—	400.00
Special Employment Programmes	—	134.88	—	134.88
III. Special Area Programmes	—	414.38	—	414.38
Hill Areas	—	162.39	—	162.39
Tribal Areas	—	125.50	—	125.50
North Eastern Council	—	101.62	—	101.62
Development of Backward Areas	—	24.87	—	24.87
IV. Irrigation and Flood Control	153.03	2462.74	33.02	2648.79
Major and Medium Irrigation	10.92	1766.30	12.74	1789.96
Minor Irrigation	14.44	413.92	8.80	437.16
Command Area Development	87.69	173.44	0.31	261.44
Flood Control including anti sea-Erosion	39.98	109.08	11.17	160.23
V. Energy	5317.22	3089.83	74.46	8481.51
Power	1743.01	3089.83	74.46	4907.30
New and Renewable Sources of Energy	81.77	—	—	81.77
Petroleum	2578.72	—	—	2578.72
Coal	913.22	—	—	913.22
Energy Development	0.50	—	—	0.50
VI. Industry Minerals	4653.21	648.81	23.87	5325.89
Village and Small Scale Industry	392.85	214.08	20.17	627.10
Large & Medium Industry	4217.36	434.73	3.70	4655.79
Export-Import Bank of India	42.00	—	—	42.00
Share capital to nationalised Banks	1.00	—	—	1.00
VII. Transport	2556.65	929.84	95.54	3582.03
Railways	1650.91	0.251	—	1651.16
Roads	203.64	639.96	73.77	917.37
Road Transport	61.90	237.53	5.90	305.33
Ports	180.96	19.00	5.12	208.06
Light Houses	2.98	—	—	—
Shipping	97.83	0.20	6.41	104.44
Inland Water Transport	17.32	7.59	0.57	25.48
Civil Aviation	280.60	1.42	0.58	282.60
Meteorology	12.29	—	—	12.29
Tourism	18.09	23.89	3.19	45.17
Farakka Barrage	10.61	—	—	10.61
INSAT—Space Segment	19.52	—	—	19.52

Heads of Development	Centre	States	U.Ts.	Total
VIII. Communications, Information and Broadcasting	1003.74	15.94	1.31	1020.99
Communications	881.30	0.012	0.013	881.32
INSAT—Space Segment	19.52	—	—	19.52
Broadcasting & Television	96.83	—	—	96.83
Information & Publicity	6.09	15.93	1.30	3.32
IX. Science and Technology	321.96	12.04	0.49	337.49
Atomic Energy	94.16	—	—	94.16
Space	104.45	—	—	104.45
Scientific Research	33.82	12.04	0.49	46.35
National Test House	2.19	—	—	2.19
C.S.I.R.	60.434	—	—	60.434
Ecology and Environment	12.17	5	5	12.17
Ocean Development	17.74	—	—	17.74
X. Social Services	1554.83	2630.06	276.42	4461.31
Education				
(a) General Education	163.13	531.54	65.88	760.55
(b) Art and Culture	17.72	13.04	1.73	32.49
(c) Technical Education	40.08	54.00	9.19	103.27
(d) Sports	8.41	6	6	8.41
Health including Medical	166.62	334.52	33.30	534.44
Family Planning	440.02	—	—	440.02
Housing	91.53	317.79	35.27	444.59
Urban Development	29.72	182.587	46.568	258.86
Water Supply & Sanitation	293.46	738.15	66.08	1097.69
Welfare of Scheduled Castes, Scheduled Tribes & other Backward Classes	71.03	226.30	5.23	302.56
Special Central Additive for Scheduled Caste Component Plans	140.00	—	—	140.00
Social Welfare	78.72	46.75	4.72	130.19
Nutrition	0.29	142.39	4.59	147.27
Labour & Labour Welfare	14.10	43.009	3.87	60.97
XI. Others	43.47	208.64	8.57	260.68
Statistics	10.74	8.01	0.43	19.18
Rehabilitation of displaced persons	20.39	0.3310	—	20.72
Planning Machinery	2.09	30.06	0.58	32.73
Stationery and Printing	1.14	7.45	0.88	9.47
Public Works	—	66.93	5.20	72.13
Training for Development	0.55	—	—	0.55
Prevention of water & air pollution	4.57	—	—	4.57
Preservation of wild life and zoological park, New Delhi	3.18	—	—	3.18
Other unclassified services	0.8111	95.8612	1.4813	98.15
Total (I to XI)	17494.93	12180.98	556.17	30232.08
Central Assistance for relief against Natural Calamities	—	154.45	—	154.45

1For 'Konkan Railway' in Maharashtra.

2For Telecommunication in Himachal Pradesh.

3For Radio-Telephone links in Lakshadweep.

4Includes Rs. 1.35 crores on account of schemes transferred from D.S.T. to Deptt. of Scientific and Industrial Research.

5Included under Scientific Research.

6Included under General Education.

7Includes Rs. 40.61 crores for State Capital Projects.

8Includes Rs. 7.40 crores for State Capital Projects.

9Does not include provision for Craftsmen Training in H.P. which has been provided for under 'Technical Education'.

10For Rehabilitation of Repatriates from Burma.

11Includes provision for Public Distribution System Rs. 0.65 crore Official language—Hindi Rs. 0.16 crore.

12Includes provision for Area Development—other than CAD Rs. 2.22 crores, weights & Measures—Rs. 2.13 crores and other unclassified services 91.51 crores.

13Includes provision for weights & Measures—Rs. 0.22 crores and other unclassified services—Rs. 1.26 crores.

Actual expenditure, centre, states and union territories—1983-84

(Rs. crores)				
Heads of Development	Centre	States	UTs.	Total
I. Agriculture	603.77	795.38	27.86	1427.01
Agricultural Research and Education	64.61	37.29	0.87	102.77
Crop Husbandry	160.22	263.78	6.65	430.65
Soil and Water Conservation	30.70	97.79	3.57	132.06
Animal Husbandry and Dairying	33.49	95.64	4.95	134.08
Fisheries	19.56	35.80	2.45	57.81
Forestry	22.66	165.22	8.48	196.36
Land Reforms	1.96	64.03	0.61	66.60
Management of Natural Disasters	—	—	—	—
Agricultural Marketing	7.71	7.57	0.16	15.44
Food, Storage and Warehousing	39.98	3.44	0.12	43.54
Investment in Agricultural Financial Institutions	222.88	24.82	—	247.70
II. Rural Development	643.31	848.09	6.49	1497.89
Integrated Rural Development and related Programmes	249.39	262.45	—	511.84
National Rural Employment Programme	189.64	189.82	—	379.46
Community Development & Panchayat Institutions	1.24	78.95	2.89	83.08
Cooperation	103.14	127.51	3.60	234.25
Special Employment Programmes	—	189.36	—	189.36
RLEGP	99.90	—	—	99.90
III. Special Area Programmes	—	356.85	—	356.85
Hill Areas	—	135.00	—	135.00
Tribal Areas	—	110.00	—	110.00
North Eastern Council	—	81.23	—	81.23
Development of Backward Areas	—	30.62	—	30.62
IV. Irrigation and Flood Control	127.55	2284.87	32.93	2445.35
Major and Medium Irrigation	5.91	1599.52	12.74	1618.17
Minor Irrigation	15.91	425.93	7.86	449.70
Command Area Development	73.46	122.00	0.75	196.21
Flood Control including anti Sea Erosion	32.27	137.42	11.58	181.27
V. Energy	4354.05	2857.83	64.72	7276.60
Power	1173.63	2854.21	64.61	4092.45
New and Renewable Source of Energy	29.99	3.621	0.111	33.72
Petroleum	2197.84	—	—	2197.84
Coal	952.59	—	—	952.59
VI. Industry and Minerals	3350.62	550.05	15.70	3916.37
Village and Small Scale Industry	194.07	196.27	12.26	402.60
Large & Medium Industry	3121.55	353.78	3.44	3478.77
Export-Import Bank of India	35.00	—	—	35.00
Share capital of Nationalised Banks	—	—	—	—
VII. Transport	2146.78	859.33	69.71	3075.82
Railways	1419.33	0.252	—	1419.58
Roads	161.98	595.35	56.63	813.96
Road Transport	54.51	216.77	3.96	275.24
Ports	148.62	18.15	2.59	170.38
Light Houses	1.02	—	—	—
Shipping	72.00	—	3.48	75.48
Inland Water Transport	12.35	5.12	0.69	18.16
Civil Aviation	212.43	0.65	0.29	213.37
Meteorology	9.77	—	—	9.77
Tourism	14.46	23.04	2.07	39.57
Farakka Barrage	10.50	—	—	10.50
INSAT—Space Segment	29.81	—	—	29.81

Heads of Development	Centre	States	UTs.	Total
VIII. Communications, Information and Broadcasting	851.42	12.05	1.05	864.52
Communications	756.22	0.01 ³	0.01 ⁴	756.24
INSAT—Space Segment	29.82	—	—	29.82
Broadcasting & Television	60.18	—	—	60.18
Information & Publicity	5.20	12.04	1.04	18.28
IX. Science and Technology	219.23	9.21	0.04	228.48
Atomic Energy	47.01	—	—	47.01
Space	71.28	—	—	71.28
Scientific Research	23.44	9.21	0.04	32.69
National Test Houses	1.70	—	—	1.70
C.S.I.R.	50.17	—	—	50.17
Ecology and Environment	6.81	5	5	6.81
Ocean Development	18.82	—	—	18.82
X. Social Services	1310.14	2301.09	223.47	3834.70
Education				
(a) General Education	109.94	415.63 ⁶	49.74	575.31
(b) Art and Culture	12.80	14.59	2.29	29.68
(c) Technical Education	31.07	40.22	3.60	74.89
(d) Sports	6.31	10.56	1.07	17.94
Health Including Medical	132.83	309.33	27.97	470.13
Family Planning	382.99	—	—	382.99
Housing	84.75	293.86	30.43	409.04
Urban Development	26.18	179.92 ⁷	41.77 ⁸	247.87
Water Supply & Sanitation	266.07	672.71	53.83	992.61
Welfare of Scheduled Castes, Scheduled Tribes and other Backward Classes	55.31	180.82	2.90	239.03
Special Central Additive for Scheduled Caste Component Plans	130.00	—	—	130.00
Social Welfare	63.40	34.37 ⁹	3.54	101.31
Nutrition	0.11	116.98	3.05	120.14
Labour & Labour Welfare	8.38	32.10 ¹⁰	3.28	43.76
XI. Others	37.12	120.12	6.70	163.94
Statistics	8.53	5.85	0.14	14.52
Rehabilitation of displaced persons	19.89	0.21 ¹¹	—	20.10
Planning Machinery	0.70	5.29	0.44	6.43
Stationery and Printing	0.15	4.91	0.73	5.82
Public Work	—	50.70	2.41	53.11
Training for Development	0.46	—	—	0.46
Prevention of Air and Water Pollution	4.47	—	—	4.47
Preservation of wild life and zoological parks, New Delhi	2.54	—	—	2.54
Other unclassified	0.38	53.13 ¹²	2.98 ¹³	56.49
Total (I to XI)	13643.99	10994.87	448.67	25087.53
Expenditure on works financed by Central Assistance for relief from natural calamities	—	226.10	—	226.10

1 Includes IREP also.

2 For Konkan Railways in Maharashtra.

3 For telecommunications in Himachal Pradesh.

4 For Radio-Telephonic link in Lakshadweep.

5 Included under Scientific Research

6 Includes Rs. 29 lakhs wrongly shown by the Govt. of West Bengal under the head 'Social Welfare'.

7 Includes Rs. 54.25 crores for 'State Capital Projects' and Rs. 0.04 crore for 'Roads and Public Latrines' in West Bengal.

8 Includes Rs. 0.2 crore for 'State Capital Projects'.

9 Includes provision for social inputs in Gujarat, (Rs. 72 lakhs), legal aid and advance in M. P. (Rs. 25 lakhs) Manipur Rs. 1 lakh and Tripura Rs. 1 lakh.

10 Does not include expenditure on 'Craftmen training in H. P. which has been shown under 'Technical Education' by the State Government.

11 For rehabilitation of repatriates from Burma & Sri Lanka.

12 Includes Rs. 1.32 crores for weights and measures, Rs. 4.88 crores for Civil supplies and balance for the other unclassified services.

13 Includes Rs. 0.12 crore for weights and measures, Rs. 1 crore for civil supplies and the balance for other unclassified services.

CHAPTER 3

FINANCIAL RESOURCES

On the basis of the estimates worked out in consultation with the Ministry of Finance at the Centre and the State Governments, the aggregate resources available for financing the 1985-86 Annual Plan outlay have been estimated at Rs. 32,239 crores, Rs. 19,142 crores for the Centre, including Union Territories, and Rs. 13,097 crores for the States. The detailed scheme of financing the approved Plan outlay is given in Annexure 3.1. The summary position is indicated in the Table 3.1 below :—

TABLE 3.1

Financing of the Plan Outlay 1985-86 —Summary Position

	Annual Plan, 1985-86		
	(Rs. crores)		
	Centre	States	Total
I. Domestic Resources			
(i) Resources at 1984-85 rates of fares, taxes and tariffs	17,425	4,970	22,395
(ii) Additional Resource			
Mobilisation :			
(a) Centre	1,075	134	1,209
(b) States	—	1,994	1,994
Total (ii)	1,075	2,128	3,203
Total (i+ ii)	18,500	7,098	25,598
II. Net inflow from abroad	3,375 ¹	—	3,375
III. Deficit Financing	3,316	—	3,316
IV. Aggregate resources	25,191	7,098	32,289
V. Assistance for States Plans	(—)5,999	(+)5,999	—
VI. Assistance to States for relief against natural calamities	(—)50	²	(—)50
VII. Resources for the Plan	19,142	13,097	32,239

¹ Includes Rs 865 crores on account of commercial borrowings/ equity participation from abroad in respect of Central public enterprises, of which details are indicated in Annexure III.

² Excludes Rs 50 crore provided in the Central Budget for assistance to States for relief against natural calamities.

3.2 It will be seen that the domestic resources would account for 79.2 per cent of the total resources estimated for financing the Plan. Net inflow from abroad would contribute 10.5 per cent of the aggregate resources. The balance 10.3 per cent of the requirement of resources would be met through deficit financing. Brief comments on individual items of financing are given below :—

Balance from Current Revenues

3.3 The balance from the current revenues of the Centre and States taken together, after meeting their

current non-plan expenditure, is estimated at Rs. 522 crores at 1984-85 rates of taxation. The total revenue receipts of the Centre have been estimated at Rs. 26,314 crores after providing for transfer to the States of their share in Central taxes. The provision for States' share in Central taxes and statutory grants to them has been made in the light of the recommendations of the Eighth Finance Commission. The non-Plan revenue expenditure of the Centre is estimated at Rs. 27,052 crores, thus leaving a negative balance of Rs. 738 crores for the Plan. The broad details of the estimates are given in Table 3.2 below :—

TABLE 3.2

Balance from Current Revenues of the Centre for 1985-86
(at 1984-85 rates of taxation)

	(Rs. crores)
I. Revenue Receipts	
1. Tax Revenue (Gross)	25,514
2. Less : States' share of Central Taxes	6,592
3. Tax Revenues (Net)	18,922
4. Non-tax Revenue	7,392 ¹
Total Revenue Receipts	26,314
II. Non-Plan Revenue Expenditure	
1. Interest payments	7,075
2. Defence	7,686
3. Subsidies	3,466 ²
4. Grants to States, Union Territories and local bodies	1,816
5. Grants to Foreign Governments	88
6. Border Roads	64
7. Other non-development expenditure	6,857
Total Non-Plan Revenue Expenditure	27,052
III. Balance from Current Revenues (I-II)	(—)738

¹ Excluding the cash and commodity grant assistance from abroad.

² Subsidy on indigenous fertiliser Rs. 1200 crores, Food Rs. 1100 crores, Export promotion Rs 530 crores, Railways Rs 109 crores, Controlled cloth Rs. 53 crores, Sugar Exports Rs 50 crores and other subsidies Rs. 424 crores.

3.4 The receipts from major taxes have been estimated on the basis of the past trends. About two-thirds of non-Plan revenue expenditure is being currently accounted for by interest payments, subsidies and defence. The large outgo for payment of interest has been necessitated on account of the increasing resort to borrowings for financing the public sector outlays. The subsidies are mainly on fertilisers food and export promotion.

3.5 The revenue receipts of all the States taken together, inclusive of the share in Central taxes, are estimated at Rs. 25,037 crores at 1984-85 rates of taxes and fees. Their non-Plan expenditure is estimated at Rs. 23,643 crores, leaving a current account balance of Rs. 1260 crores for the Plan. The broad details of the estimates are shown in Table 3.3 below :—

TABLE 3.3

Balance from Current Revenues of the States for 1985-86 (At 1984-85 rates of taxation)		(Rs. crores)
I. Revenue Receipts		
1. Tax revenue, including share in Central taxes		20,169
2. Non-tax revenue		3,171
3. Grants from Centre		1,563
Total Revenue Receipts		24,903
II. Revenue Expenditure		
1. Debt Service		3,410
2. Other non-development		4,965
3. Non-Plan development		13,399
4. Cost of additional dearness allowance due upto 1984-85 and pay revisions not included under above items		1,869
Total Revenue Expenditure		23,643
III. Balance from current revenues (I-II)		1,260

The estimates of receipts from sales tax, excise duty, tax on motor vehicles, tax on goods and passengers, etc., have been made keeping in view the past trends as well as the growth rates adopted by the Eighth Finance Commission. As for the non-Plan expenditure, an increase of about 5 per cent has been assumed in respect of most of the items except in the case of police, medical, public works and education where a slightly higher growth has been allowed. Adequate provisions have been made for the maintenance of assets created upto the end of the Sixth Plan. Provision for interest payments has been made in the light of the anticipated additional borrowings of the States. Besides, the cost of three instalments of additional dearness allowance, which were expected to fall due by the end of 1984-85, has been provided for in the estimates for 1985-86.

3.6 For a successful implementation of the State Plans, it is essential for the State Governments to maintain strict fiscal discipline so as to ensure that the estimates of revenue receipts at 1984-85 rates are fully realised and non-Plan expenditures are kept within the estimates as assessed in conjunction with them. It is also important that no major new commitments in regard to non-Plan expenditure are undertaken by the States unless matching resources are in sight. This is inevitable in the context of the decision that the States would avoid taking recourse to overdrafts with the Reserve Bank of India for financing the Plan outlay.

Contribution of Public Enterprises

3.7 The contribution of public enterprises, both departmental and non-departmental, on the basis of 1984-85 rates of tariffs and product prices, is estimated at Rs. 5 069 crores, Rs. 5157 crores in respect of Central enterprises and (—) Rs. 88 crores in respect of State Electricity Boards and State Road Transport Corporations. Out of Rs. 5157 crores of contribution estimated for the Central enterprises, the internal resources (retained profits plus depreciation) are estimated at Rs. 4395 crores. The balance of Rs. 762 crores is to be mobilised by way of extra-budgetary resources, excluding foreign commercial borrowings, etc. which has been accounted for under net inflow from abroad. The unit-wise estimates of internal resources and extra-budgetary resources as well as of budgetary support in respect of Central enterprises are given in Annexure 3.3.

Railways

3.8 The Railways' Plan outlay of Rs. 1650 crores for 1985-86 is expected to be financed to the extent of Rs. 950 crores by internal resources, including net additional resource mobilisation of Rs. 381 crores, and the balance of Rs. 700 crores would be met through budgetary support from the general revenues. The components of internal resources are as follows : (i) depreciation reserve (Rs. 870 crores), (ii) open line works (Rs. 15 crores), (iii) accident compensation, safety and passenger amenities fund (Rs. 25 crores) and (iv) development fund (Rs. 40 crores). These estimates are based on the assumption that the Railways would carry 250 million tonnes of revenue earning traffic during 1985-86.

Tele-communications

3.9 The Plan outlay of Rs. 835 crores for tele-communications for 1985-86 is expected to be financed to the extent of Rs. 560 crores from internal resources and the balance of Rs. 275 crores would be met through budgetary support from the general revenues. It may be stated that from this year onwards, the Postal and Tele-communication Department has been bifurcated and the estimates of revenue and expenditure in respect of Postal Department have been included in the estimates of the Centre's balance from current revenues.

Other Central Non-Department Enterprises

3.10 The internal resources of other Central enterprises for financing the Plan have been estimated at Rs. 3266 crores at 1984-85 rates. Out of 181 Central undertakings, 60 enterprises are expected to generate internal resources (i.e. depreciation plus retained profits at 1984-85 rates), while the remaining enterprises would depend entirely on budgetary support and extra-budgetary resources.

State Enterprises

3.11 The overall contribution of the State Electricity Boards for the Annual Plan 1985-86 at base year rates of tariffs is estimated at (—) Rs. 49 crores comprising (+) Rs. 319.50 crores by eight Boards and

(—) Rs. 368.76 crores by ten Boards as shown in Annexure 3.4. The overall contribution of the State Road Transport Corporations at 1984-85 rates of fares is estimated at (—) Rs. 42 crores, comprising (+) Rs. 86.93 crores by five Corporations and (—) Rs. 128.76 crores by fourteen Corporations as shown in Annexure 3.5. Although substantial tariff/fare revisions have been undertaken by various State Electricity Boards and State Road Transport Corporations in the past, the yield has been largely absorbed by higher input costs and increases in emoluments of employees. The State Electricity Boards and Road Transport Corporations will, therefore, have to undertake a further effort to improve their financial performance.

Market Borrowings

3.12 The net market borrowings during 1985-86 have been estimated at Rs. 6700 crores, Rs. 5100 crores for the Centre and Rs. 1600 crores for the States and their enterprises. All States have been allocated 20 per cent higher market borrowing over the 1984-85 level. In addition, special market borrowings have been allocated to the relatively less developed States. The estimates of market borrowings for the Annual Plan 1985-86 have been made taking into account the rate of growth of bank deposits, recent increase in statutory liquidity ratio (SLR) for Commercial banks and also the estimated net accretion to the investible funds of the major financial institutions like Life Insurance Corporation of India, General Insurance Corporation, etc.

Small Savings

3.13 The small savings collections have been quite buoyant in the recent past. The net collection of small savings during 1985-86 is estimated at Rs. 3900 crores, out of which the share of the Central Government and Union Territories would be Rs. 1525 crores. The balance amount of Rs. 2375 crores would be available for financing the State Plans.

Provident Funds

3.14 In the light of the past trend and existing rate of contribution, the net accretion to the Provident Fund is estimated at Rs. 1228 crores.

Terms-Loans from Financial Institutions

3.15 As in the past, credit has been taken for term-loans from the Life Insurance Corporation of India and the General Insurance Corporation to finance States' Plan outlay in respect of socially-oriented sectors, such as housing, water supply and sewerage, transport and power. Besides, the Industrial Development Bank of India would extend loan facility under its Bills Rediscounting Scheme to the State Electricity Boards and Road Transport Corporations. Similarly, the Rural Electrification Corporation and the National Bank for Agriculture and Rural Development would continue to extend assistance to the States for the rural electrification programmes and

for participation in the share capital of the co-operatives. The details of the estimates of the loans from all these sources are given in Annexure 3.1.

Miscellaneous Capital Receipts

3.16 The miscellaneous capital receipts (net) of the Centre have been estimated at Rs. 6011 crores. The capital receipts mainly include recovery of loans and advances and net accretion to deposits and funds. On the expenditure side, allowance has been made for the likely non-Plan loans and advances to public sector undertakings, Government employees, agriculturists and foreign Governments, subsidy on imported fertilizers, etc.

3.17 The net miscellaneous capital receipts of the States for 1985-86 are estimated at (—) Rs. 1837 crores. There is a need on the part of the State Governments to step up the recovery of loans and advances given by them and to ensure that borrowings are used productively and mainly for creation of capital assets which generate commensurate revenue.

Additional Resource Mobilisation

3.18 The Central and State Governments and their enterprises together are expected to raise Rs. 3203 crores (net) through various additional resource mobilisation measures. The yield of additional resource mobilisation measures announced in the Central Budget 1985-86, net of States' share of Rs. 134 crores is estimated at Rs. 344 crores as shown below:—

TABLE 3.4

Additional Resource Mobilisation — Centre	
	(Rs. crores)
1. Customs	285
2. Union Excise Duties	178
3. Corporation Tax	248
4. Income Tax	(—)197
5. Interest	(—)170
(Total 1 to 5) :	344

3.19 The additional resource mobilisation measures announced in the Railway Budget 1985-86 are expected to yield a gross revenue of Rs. 495 crores. After allowing for the increase in D.A. and escalation in input costs amounting to Rs. 114 crores, the net yield is placed at Rs. 381 crores. An amount of Rs. 350 crores, net of adjustments for cost escalations, is anticipated on account of the (15 per cent) increase in the prices of petroleum products.

3.20 The yield of additional resource mobilisation to be undertaken by the State Governments, including their enterprises, has been taken at Rs. 1994 crores for financing their Annual Plan 1985-86. The State-wise break-up of the target is set out in Annexure 3.2. Since the yield from the additional resource mobilisation measures only net of cost escalations would be reckoned as resource available for financing the plan outlay of public sector enterprises, the State Electricity Boards and State Road Transport Corporations will have to plan their measures to raise resources accordingly. However, there is substantial

scope for improving financial performance through increase in productivity and efficiency, improvement in plant load factor, reduction in unproductive expenditure, redeployment of surplus staff and strict administrative and financial discipline.

Net Inflow from Abroad

3.21 The net inflow from abroad for 1985-86 has been estimated at Rs. 3375 crores, comprising Rs. 2510 crores of external assistance and Rs. 865 crores of commercial borrowings, etc., by public sector enterprises.

Deficit Financing

3.22 The Central Budget for 1985-86 envisages a deficit Rs. 3316 crores which is lower than the actual deficit of 1984-85. Further measures are contemplated through rationalisation of tax structure as well as non-Plan expenditure with a view to scale down the budgetary deficit by the end of the year. The State Plans have been fully funded and there is no gap in resources to finance the approved Plan outlays.

Central Assistance

3.23 The Central assistance allocated for State Plans for 1985-86 amounts to Rs. 5999 crores, as shown below :—

TABLE 3.5
Central Assistance to States

	(Rs. crores)
(i) Allocation under Modified Gadgi Formula (net)	4979
(ii) Assistance linked to externally aided projects	595
(iii) Tribal Sub-Plan	140
(iv) Hill Areas	170
(v) North Eastern Council Plan	115
Total	5999

In addition, a provision of Rs. 50 crores has been made for assistance to States for works in connection with relief from natural calamities.

Estimates of financial Resources for the Annual Plan 1985-86

(Rs. crores)			
	Centre	States	Total
1	2	3	4
I. Plan Outlay	19142	13097	32239
Financing of the Plan :			
II. Domestic resources at 1984-85 rates of taxes, tariffs and fares :			
1. Balance from current revenues	(—)738	1260	522
2. Contribution of Public Enterprises :			
(a) Centre :			
(i) Railways	569	—	569
(ii) Tele-Communication	560	—	560
(iii) Other Central Enterprises	3266	—	3266
(iv) Domestic extra-budgetary support	762	—	762
Total (a)	5157	—	5157
(b) States :			
(i) State Electricity Boards	—	(—)49	(—)49
(ii) State Road Transport Corporations	—	(—)42	(—)42
(iii) Other State Enterprises	—	(+)3	(+)3
Total (b)	—	(—)88	(—)88
(c) Total (a+b)	5157	(—)88	5069
3. Market borrowings of the Government/Public Enterprises and Local Bodies	5100	1600	6700
4. Small Savings	1525	2375	3900
5. Provident Funds	370	858	1228
6. Term Loans from financial institutions :			
(a) Life Insurance Corporation of India/General Insurance Corporation	—	3771	3771
(b) Rural Electrification Corporation	—	163	163
(c) National Bank for Agriculture & Rural Development	—	37	37
(d) Industrial Development Bank of India	—	225	225
Total 6	—	802	802
7. Miscellaneous Capital Receipts (net)	6011	(—)1837 ²	4174
Total II	17425	4970	22395
III. Additional Resource Mobilisation 1985-86 Measures :			
(a) Centre :			
(i) Central Government	344	134	478
(ii) Central Public Enterprises	731	—	731
Total (a)	1075	134	1209
(b) State Governments including the State Public Enterprises	—	1994	1994
Total III (a+b)	1075	2128	3203

¹ Includes Rs. 10 crores for N.E.C.

² Includes part adjustment of overdrafts at the end of 1984-85.

Annexure 3.1 (Contd)
(Rs. crores)

1	Centre	States	Total
1	2	3	4
IV Total Domestic Resources at current rates	18500	7098	25598
V. Net inflow from abroad	3375 ³	—	3375
VI. Budgetary Deficit	3316	—	3316
VII. Aggregate Resources	25191	7098	32289
VIII. Assistance for State Plans :			
(a) State Plans (Normal)	(—)5119	5119	—
(b) Adjustment of advance Plan assistance	(+) 140	(—)140	—
(c) Net Normal Assistance	(—)4979	4979	—
(d) Externally Aided Projects	(—) 595	595	—
(e) Total Central Assistance for State Plans	(—)5574	5574	—
(f) Central Assistance for Area Programmes :			
(i) Hill Areas	(—)170	170	—
(ii) Tribal Sub-Plans	(—)140	140	—
(iii) North Eastern Council Plan	(—)115	115	—
Total (f)	(—)425	425	—
(g) Provision of Central assistance for relief against natural calamities	(—)50	4	(—)50
Total VIII	(—)6049	5999	(—)50
IX. Resources available for the Plan (VII+ VIII) :	19142	13097	32239

³Includes Rs. 865 crores on account of commercial borrowings/equity participation from abroad by public sector enterprises.

⁴Excludes Rs. 50 crores provided in the Central budget for assistance to States against natural calamities.

Target of Additional Resources Mobilisation for the Annual Plan 1985-86

States		(Rs. crores)
I. Special Category		
1. Assam		41.32
2. Himachal Pradesh		13.00
3. Jammu & Kashmir		21.81
4. Manipur		0.69
5. Meghalaya		0.88
6. Nagaland		0.39
7. Sikkim		0.34
8. Tripura		0.50
Total I		78.93
II. Non-Special Category :		
1. Andhra Pradesh		204.42 ¹
2. Bihar		85.60
3. Gujarat		106.82
4. Haryana		60.90
5. Karnataka		189.13
6. Kerala		106.74
7. Madhya Pradesh		184.03
8. Maharashtra		341.58
9. Orissa		77.27
10. Punjab		100.00
11. Rajasthan		103.51 ¹
12. Tamil Nadu		100.00
13. Uttar Pradesh		163.81
14. West Bengal		91.18
Total II		1914.99
Grand Total (I+ II)		1993.92

¹Includes Economy and Buoyancy.

Plan Outlay of Central Enterprises and its financing Annual Plan 1985-86

(Rs. crores)

No.	Ministry/Department/Project	Annual Plan Outlay	Financed by		
			Internal Resources	Extra Budgetary Resources	Budgetary Support
1	2	3	4	5	6
I. MINISTRY OF AGRICULTURE					
	1. State Farms Corporation	1.67	0.37		1.30
II. MINISTRY OF COMMERCE					
A.	1. Coffee Board	12.23	0.09		12.14
	2. Tea Board	9.32	1.26		8.06
	3. Cardamom Board	3.13	0.06		3.07
	4. Rubber Board	12.26	0.70		11.56
	Total (A)	36.94	2.11		34.83
B.	1. Export Inspection Council	0.50	0.50		17.75
	2. Export Processing Zones	17.75			
	3. Marine Products Export Development Authority	3.50			3.50
	4. Mica Trading Corporation	2.79	2.79		
	Total (B)	24.54	3.29		21.25
	Total II (A+B)	61.48	5.40		56.08
III. DEPARTMENT OF FOOD					
	1. Central Warehousing Corporation	22.52	9.50	9.50 ¹	3.52
IV. INDUSTRY AND MINERALS					
Department of Steel					
A.	1. Steel Authority of India and Subsidiaries :				
	(i) Bhilai Steel Plant	245.00			156.74
	(ii) Bokaro Steel Plant	155.00			94.42
	(iii) Rourkela Steel Plant	105.00			42.98
	(iv) Durgapur Steel Plant	62.00			18.00
	(v) Alloy Steel Plant	25.00		275.00 ²	15.55
	(vi) Central Marketing Organisation	8.00			
	(vii) R & D Centre	10.00			7.54
	(viii) Salem Steel Plant	4.00			3.61
	(ix) Indian Iron & Steel Co. and (IISCO) STANTON	36.00		0.80	35.20
	(x) Visvesvaraya Iron & Steel Ltd.	1.26		0.95 ³	0.47
	Total (SAIL)	651.26		276.75	374.51

¹Commercial Borrowing from abroad.²SDF Contribution³Contribution from Government of Karnataka.

S. No.	Ministry/Department/Project	Annual Plan 1985-86			
		Plan Outlay	Internal Resources	Extra Budgetary Resources	Budgetary Support
1	2	3	4	5	6
	2. Rashtriya Ispat Nigam Ltd. (Vishakhapatnam Steel Project)	215.00			215.00
	3. Vijayanagar Steel Plant	1.00			1.00
	4. Neelachal Ispat Nigam Ltd. (New Steel Plant, Orissa)	1.00			1.00
	5. Bharat Refractories Ltd.	6.00			6.00
	6. Sponge Iron India Ltd.	3.20			3.20
	7. Metallurgical & Engineering Consultants (India) Ltd.	3.80	3.80		—
	8. Metal Scrap Trading Ltd.	1.00	1.00		—
	9. Hindustan Steel Works Construction Ltd.	3.00			3.00
	Total (2 to 9)	234.00	4.80		229.20
	Total (Department of Steel)	885.26	4.80	276.75	603.71
	Ferrous Minerals				
	1. Kudremukh Iron Ore Co. Ltd.	16.50			16.50
	2. National Mineral Corpn.	17.37			17.37
	3. Manganese Ore (India) Ltd.	1.48			1.48
	4. Mineral Development Board	0.65			0.65
	Total (Ferrous Minerals)	36.00			36.00
	Total IV	921.26	4.80	276.75	639.71
(V)	DEPARTMENT OF MINES				
	1. Bharat Aluminium Company	97.61	—	—	97.61
	2. National Aluminium Company	412.00	—	360.00 ⁴	52.00
	3. Hindustan Copper Ltd.	33.36			33.36
	4. Hindustan Zinc Ltd.	19.35	19.35		—
	5. Bharat Gold Mines Ltd.	4.00			4.00
	6. Mineral Exploration Corpn. Ltd.	29.00	6.60		22.40
	7. Geological Survey of India	32.72			32.72
	8. Indian Bureau of Mines	2.33			2.33
	9. R & D Schemes	1.63			1.63
	Total (Department of Mines)	632.00	25.95	360.00	246.05
	V. MINISTRY OF PETROLEUM				
	A. Petroleum				
	1. Oil & Natural Gas Commission	2250.00	1925.00	200.00 ⁵	125.00
	2. Oil India Ltd.	280.00	275.83	4.17 ⁶	—
	3. Gas Authority of India Ltd.	100.00	29.28	20.72 ⁷	50.00
	4. Indian Oil Corporation	135.86	130.44	5.42 ⁸	—
	5. Hindustan Petroleum Corpn Ltd.	156.32	67.71	68.61 ⁹	20.01
	6. Bharat Petroleum Corpn. Ltd.	89.44	56.00	27.44 ¹⁰	6.00
	7. Madras Refinery Ltd.	17.34	11.18	0.22 ¹¹	5.94
	8. Cochin Refineries Ltd.	14.26	5.26	7.00 ¹²	2.00
	9. Bongaigaon Refinery & Petro-Chemical Ltd.	1.84	—	—	1.84
	10. Other Petroleum Industries				
	(i) LIL	5.01	5.01		
	(ii) EIL	13.63	11.63	2.00 ¹³	
	(iii) Department	21.30	21.30		
	Total (Petroleum)	3085.00	2538.64	335.58	210.78

4 Eurocurrency loan

5 Commercial Borrowing & Supplier's Credit.

6 Supplier's Credit.

7 OIDB @Oil Industries Development Board Rs. 10 crores and Supplier's credit Rs. 10.72 crores.

8 Public Deposit.

9 OIDB Rs. 64.48 crores, Public Deposit Rs. 1.13 crores, Freight Surcharge Pool Rs. 3.00 crores.

10 OIDB and SP

11 OIDB

12 OIDB and FSP

13 Commercial Borrowing

Sl. No.	Ministry/Department/Project	Annual Plan 1985-86			
		Plan Outlay	Internal Resources	Extra Budgetary Resources	Budgetary Support
1	2	3	4	5	6
B. Petro-Chemicals & Engg. (Units.)					
(a) Petro-Chemicals					
1.	Indian Petro-Chemicals Corpn. Ltd.	87.00	87.00	—	—
2.	Bongaigaon Refinery & Petro-Chemicals Ltd. (Petro-Chemical Complex)	42.93	—	—	42.93
3.	Hindustan Petroleum Corpn.	2.00	2.00	—	—
4.	Bharat Petroleum Corpn Ltd.	12.50	—	12.50 ¹⁴	—
5.	Cochin Refineries Ltd.	8.00	—	8.00 ¹⁴	—
6.	Petrofils Coop. Ltd.	0.10	0.10	—	—
7.	Central Institute of Plastic Engg. Tools	0.77	—	—	0.77
8.	Madras Refineries Ltd.	2.00	—	2.00 ¹⁴	—
9.	Other Schemes	0.55	0.30	—	0.25
	Total (a) : Petro-Chemicals	155.85	89.40	22.50	43.95
(b) Explosives/Engineering Units					
10.	Indo-Burmah Petroleum Co. Ltd.	9.11	6.00	3.11 ¹⁴	—
11.	Balmer Lawrie Co. Ltd.	5.53	2.70	2.83 ¹⁴	—
12.	Biece Lawrie & Co. Ltd.	0.01	—	—	0.01
13.	Bridge & Roof Co. Ltd.	5.50	2.50	3.00 ¹⁴	—
	Total (b)	20.15	11.20	8.94	0.01
	Total V (Ministry of Petroleum)	3261.00	2639.24	367.02	254.74
VI. POWER					
1.	Damodar Valley Corporation	115.00	36.00	79.00 ¹⁵	—
2.	National Thermal Power Corpn.	1394.36	60.53	191.04 ¹⁶	1142.79
3.	National Projects Construction Corpn.	7.83	2.53	—	5.30
4.	National Hydel Power Corpn.	254.36	—	51.98 ¹⁷	[202.38
	Total VI (Power)	1771.55	99.06	322.02	1350.47
VII. COAL					
1.	NLC	173.50	70.00	—	103.50
2.	CIL	851.50	—	15.00 ¹⁸	836.50
	Total VII (COAL)	1025.00	70.00	15.00	940.00
VIII. CIVIL AVIATION AND TOURISM					
1.	Air India	126.48	126.48	—	—
2.	Indian Airlines	87.00	87.00	—	—
3.	IAAI	48.00	28.00	—	20.00
4.	ITDC	8.00	1.25	—	6.75
	Total VIII (1 to 4)	269.48	242.73	—	26.75
IX. RAILWAYS					
		1650.00	950.00*	—	700.00

@ Oil Industries Development Board.

¹⁴ OIDB Assistance.

¹⁵ Commercial Borrowing.

¹⁶ Loan from SCM Bank, U.K.

¹⁷ Assistance from Canada

¹⁸ Commercial Borrowing.

*Includes yield from additional resource mobilisation.

Sl. No.	Ministry/Department/Project	Annual Plan 1985-86			
		Plan Outlay	Internal Resources	Extra Budgetary Resources	Budgetary Support
1	2	3	4	5	6
X. MINISTRY OF COMMUNICATIONS		893.00	575.26		317.74
1.	Communications	835.00	560.00		275.00
2.	Indian Telephone Industries	55.00	15.00		40.00
3.	Other Tele-communications & Electronics Industries	3.00	0.26		2.74
XI. MINISTRY OF CHEMICALS AND FERTILISERS					
(a) Fertilisers :					
1.	Fertilizers & Chemicals Travancore Ltd.	47.00	8.00	—	39.00
2.	Fertilizer Corporation of India Ltd.	11.37	—	—	11.37
3.	Hindustan Fertilizers Corporation Ltd.	64.53	—	—	64.53
4.	National Fertilizers Ltd.	160.85	110.00	—	50.85
5.	Rashtriya Chemicals & Fertilizers Ltd.	130.45	130.45	—	—
6.	Project & Development (India) Ltd.	7.95	—	—	7.95
7.	Pyrites, Phosphates & Chemicals Ltd.	4.32	—	—	4.32
8.	Paradeep Phosphates Ltd.	100.00	—	30.00	70.00
9.	Bijapur Fertilizer Project	5.00	—	—	5.00
10.	Madras Fertilizers Ltd.	10.00	10.00	—	—
11.	Indo-BEC Fertilizer Dev. Programme	2.00	—	—	2.00
12.	NIFT	0.01	—	—	0.01
Total (a) (Fertilizers)		543.48	258.45	30.00	255.03
(b) Chemicals and Pesticides					
13.	Hindustan Organic Chemicals Ltd.	26.75	8.00	—	18.75
14.	Hindustan Insecticides Ltd.	4.30	2.00	—	2.30
Total (b) Chemicals and Pesticides		31.05	10.00	—	21.05
(c) Drugs and Pharmaceuticals					
15.	Indian Drugs & Pharmaceuticals Ltd.	4.62	—	—	4.62
16.	Hindustan Anti-biotics Ltd.	6.65	2.00	—	4.65
17.	Smith Stani Street Pharmaceuticals Ltd.	1.10	—	—	1.10
18.	Bengal Chemicals & Pharmaceuticals Ltd.	2.50	—	—	2.50
19.	Bengal Immunity Co. Ltd.	3.50	—	—	3.50
20.	Other Schemes	1.10	—	—	1.10
Total (c) Drugs and Pharmaceuticals		19.47	2.00	—	17.47
Total : Ministry of Chemicals & Fertilisers		594.00	270.45	30.00	293.55
XII. DEPARTMENT OF CO-OPERATION (FERTILIZER PROJECTS)					
1.	Kribhco (Hazira Fertilizer Project)	200.00	5.00	72.29 ²⁰	122.71
2.	IFFCO (Anola Fertilizers Projects)	40.00	—	10.00 ²¹	30.00
TOTAL XII : (DEPARTMENT OF COOPERATION)		240.00	5.00	82.29	152.71

(19) Foreign Equity Participation.

(20) Loans from financial institutions and equity participation by Indian Farmer Fertilizers and Cooperative Ltd.

(21) Equity participation by IFFCO.

Sl. No.	Ministry/Department/Project	Annual Plan 1985-86			
		Plan Outlay	Internal Resources	Extra Budgetary Resources	Budgetary Support
1	2	3	4	5	6
XIII. DEPTT. OF INDUSTRIAL DEVELOPMENT :					
	1. Cement Corporation of India	83.00	10.00	46.00 ²²	27.00
	2. Hindustan Paper Corporation	70.35	—	—	70.35
	3. NEPA Mills	15.50	—	—	15.50
	4. Bharat Ophthalmic Glass Ltd.	1.85	—	—	1.85
	5. Tannery & Footwear Corporation	0.65	—	—	0.65
	6. Hindustan Photo Films Manufacturing Co. Ltd.	2.00	1.20	—	0.80
	7. National Institute of Design & Productivity Council	1.20	—	—	1.20
	8. Hindustan Salts Ltd.	0.50	—	—	0.50
	9. National Institute of Design	1.10	—	—	1.10
	10. Bharat Leather Corporation	2.00	—	—	2.00
	11. Instrumentation Limited	6.77	—	—	6.77
	12. Hindustan Cables Limited	28.80	2.20	—	26.60
	13. National Instruments Limited	1.50	—	—	1.50
	14. Cycle Corporation of India	1.00	—	—	1.00
	15. National Bicycle Corporation	1.00	—	—	1.00
	16. Tyre Corporation of India	1.00	—	—	1.00
	17. Andrew Yule & Co.	2.13	2.13	—	—
	Total XIII : Industrial Development	220.35	15.53	46.00	158.82
XIV. DEPARTMENT OF HEAVY INDUSTRY					
	1. Bharat Heavy Electricals Ltd.	58.00	58.00	—	—
	2. H.M.T. Limited	50.00	50.00	—	—
	3. Heavy Engineering Corporation	9.00	—	—	9.00
	4. Bharat Heavy Plates & Vessels	6.00	—	—	6.00
	5. Mining & Allied Machinery Corporation	3.00	—	—	3.00
	6. Bharat Pumps & Compressors Ltd.	4.00	—	—	4.00
	7. Braithwaite & Co. Ltd.	2.50	—	—	2.50
	8. Bharat Brakes & Valves Ltd.	1.00	—	—	1.00
	9. Bharat Processors & Mechanical Engg. Ltd.	0.65	—	—	0.65
	10. Bharat Wagons & Engineering Ltd.	1.50	—	—	1.50
	11. Tungabhadra Steel Products	0.90	—	—	0.90
	12. Richardson & Cruddas Ltd.	1.00	—	—	1.00
	13. Triveni Structural Ltd.	1.00	—	—	1.00
	14. Burn Standard Company Ltd.	10.39	—	—	10.39
	15. Jessop & Company Ltd.	3.00	—	—	3.00
	16. Scooters India Ltd.	1.00	—	—	1.00
	17. Maruti Udyog Ltd.	55.00	—	5.23 ²³	49.77
	18. Automobile Research Association of India	3.00	1.32	—	1.68
	19. Central Machine Tools Institute	2.00	—	—	2.00
	20. Lagan Jute	1.27	1.27	—	—
	21. Engineering Products India Ltd.	0.05	—	—	0.05
	22. High Voltage Direct Current Project	4.00	—	—	4.00
	23. H.D. & P.E.	0.70	—	—	0.70
	TOTAL XIV: HEAVY INDUSTRY	218.96	110.59	5.23	103.14

(22) Institutional Finance.

(23) Equity participation by Suzuki.

Sl. No.	Ministry/Department/Project	Annual Plan 1985-86			
		Plan Outlay	Internal Resources	Extra Budgetary Resources	Budgetary Support
1	2	3	4	5	6
XV : DEPARTMENT OF ELECTRONICS					
(a) Corporations					
1.	E.T. & T.	3.40	2.40	—	1.00
2.	C.M.C. Limited	5.00	—	—	5.00
3.	S.C.L.	9.60	—	—	9.60
	Sub-total (a)	18.00	2.40	—	15.60
(b) Societies					
4.	SAMEER (SAMPU)	2.30	—	—	2.30
5.	CDOT	7.20	—	—	7.20
6.	NCSOCT	2.50	—	—	2.50
	Sub-Total (b)	12.00	—	—	12.00
(c) Departmental Projects					
7.	National Silicon Facility	5.45	—	—	5.45
8.	Systems Engg. including Defence Project	2.00	—	—	2.00
9.	S.T.O.C.	4.50	—	—	4.50
10.	Manpower Division Social Electronics and C.E.D.T.	8.00	—	—	8.00
	Total (C)	19.95	—	—	19.95
TOTAL XV : DEPARTMENT OF ELECTRONICS :		49.95	2.40	—	47.55
XVI : MINISTRY OF SHIPPING AND TRANSPORT					
(A) Ship Building and Ship Repair Programme					
1.	Hindustan Shipyard Ltd.	19.10	—	—	19.10
2.	Ship Repair Facilities	2.00	—	—	2.00
3.	Cochin Shipyard Ltd.	2.85	—	—	2.85
4.	Others	0.30	—	—	0.30
	Total (A)	24.25	—	—	24.25
	(B) Post Trusts	229.65	95.64	102.00²⁴	32.01
TOTAL XVI : SHIPPING & TRANSPORT		253.90	95.64	102.00	56.29
XVII DEPARTMENT OF ATOMIC ENERGY					
1.	Bhabha Atomic Research Centre	47.29	—	—	47.29
2.	Heavy Water Plants	147.27	—	—	147.27
3.	Nuclear Fuel Complex	2.54	—	—	2.54
4.	Atomic Minerals Division	0.81	—	—	0.81
5.	Indian Rare Earths Ltd.	10.54	—	—	10.54
6.	Electronics Corporation of India Ltd.	11.24	1.00	—	10.24
7.	Uranium Corporation of India Ltd.	20.31	—	—	20.31
TOTAL XVII : ATOMIC ENERGY		240.00	1.00	—	239.00
XVIII. MINISTRY OF FINANCE (DEPTT. OF ECONOMIC AFFAIRS) (Mines and Presses)					
1.	Indian Security Press, Nasik	6.70	—	—	6.70
2.	Currency Note Press, Nasik	22.00	—	—	22.00
3.	Bank Note Press, Dewas	5.01	—	—	5.01
4.	India Government Mints	8.84	—	—	8.84
5.	Security Paper Mill, Hoshangabad	2.20	—	—	2.20
6.	Other Schemes	0.25	—	—	0.25
TOTAL XVIII : MIN. OF FINANCE (DEA)		45.00	—	—	45.00

Annexure 3.3 (Concl'd.)
(Rs. Crores)

Sl. Ministry/Department/Project No.		Annual Plan 1985-86			
		Plan Outlay	Internal Resources	Extra Budgetary Resources	Budgetary Support
1	2 /	3	4	5	6
XIX. MINISTRY OF FINANCE (DEPTT OF ECONOMIC AFFAIRS) (Banking Division)					
	1. Industrial Development Bank of India	46.84	—	—	46.84
	2. Industrial Finance Corporation of India	2.55	—	—	2.55
	3. Industrial Credit & Investment Corpn. of India	5.61	—	—	5.61
	4. Industrial Reconstruction Bank of India	45.00	—	—	45.00
	TOTAL XIX :	100.00	—	—	00.00
XX. MINISTRY OF FINANCE (DEPTT. OF REVENUE)					
	1. Project for extraction of alkaloid from opium at Ghazipur and Neemuch	2.00	—	—	2.00
	TOTAL XX :	2.00	—	—	2.00
XXI. MINISTRY OF CIVIL SUPPLIES :					
	1. Metric System of Weights & Measures	0.65	—	—	0.65
	2. Indian Standards Institution	1.58	—	—	1.58
	TOTAL XXI :	2.23	—	—	2.23
XXII. DEPARTMENT OF TEXTILES					
	1. National Textile Corporation	25.00	—	—	25.00
	2. National Jute Manufacturing Corporation	5.00	—	4.00 25	1.00
	3. British India Corporation	10.00	—	7.00 25	3.00
	4. S & T Programme	2.00	—	—	2.00
	TOTAL XXII :	42.00	—	11.00	31.00
XXIII. DEPTT. OF SCIENTIFIC AND INDUSTRIAL RESEARCH					
	1. Central Electronics Ltd.	2.30	—	—	2.30
	TOTAL XXIII	2.30	—	—	2.30
XXIV. MINISTRY OF INFORMATION AND BROADCASTING					
	1. National Film Development Corporation	3.25	3.25	—	—
GRAND TOTAL (I TO XXIV)		12,522.90	5,126.17	1,626.81	5769.92

(24) Bombay Port assistance for Neva Sheva.

(25) Institutional Finance.

Contribution of State Electricity Boards in 1985-86 at 1984-85 Rates of Tariffs

(A) State Electricity Boards making positive contribution		(B) State Electricity Boards making negative contribution	
States	(Rs. crores)	States	(Rs. crores)
1	2	1	2
1. Andhra Pradesh	112.60	1. Assam	(—)28.54
2. Gujarat	44.98	2. Bihar	(—)59.60
3. Haryana	9.00	3. Himachal Pradesh	(—)10.52
4. Kerala	33.18	4. Jammu & Kashmir	(—)14.04
5. Madhya Pradesh	69.75	5. Karnataka	(—)84.16
6. Orissa	24.20	6. Maharashtra	(—)7.20
7. Uttar Pradesh	18.36	7. Meghalaya	(—)3.13
8. West Bengal	7.43	8. Punjab	(—)12.53
		9. Rajasthan	(—)51.90
		10. Tamil Nadu	(—)97.14
Total :	319.50	Total	(—)368.76

Contribution of Road Transport Corporations in 1985-86 at 1984-85 Rates of Fares.

State Road Transport Corporations making positive contribution		State Road Transport Corporations making negative contribution	
State	(Rs. crores)	State	(Rs. crores)
1	2	1	2
1. Andhra Pradesh	10·17	1. Assam	(—)1·59
2. Maharashtra	27·10	2. Bihar	(—)18·13
3. Rajasthan	1·97	3. Gujarat	(—)8·29
4. Tamil Nadu	33·40	4. Himachal Pradesh	(—)2·00
5. Uttar Pradesh	14·29	5. Jammu & Kashmir	(—)1·56
		6. Karnataka	(—)27·67
		7. Kerala	(—)18·50
		8. Madhya Pradesh	(—)4·00
		9. Manipur	(—)0·81
		10. Meghalaya	(—)0·71
		11. Orissa	(—)9·07
		12. Punjab	(—)12·29
		13. Tripura	(—)0·83
		14. West Bengal	(—)23·31
Total	86·93	Total	(—)128·76

CHAPTER 4

AGRICULTURE AND ALLIED SECTORS

Agricultural Production : A Review

The excellent performance of crop production in the year 1983-84, coming as it did after a spell of stagnation, imparted a new optimism in the agriculture sector. The Sixth Plan target of foodgrains production for 1984-85, which was considered rather unattainable at the time of Mid-term Appraisal, again appeared feasible. For the Annual Plan 1984-85,

therefore, the same target for foodgrains as originally envisaged in the Sixth Plan viz. 153.6 million tonnes was adopted with some marginal adjustments in the targets of individual crops.

4.2 The targets and achievements in respect of production of principal crops during the Sixth Plan period are given in the following Table :—

TABLE 1
Crop Production—Sixth Plan

Crop	Unit	Plan Target 1984-85	1980-81		1981-82		1982-83		1983-84		1984-85	
			Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Ant. Achievement
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Food grains	Million Tonnes	63.0	55.0	53.6	58.0	53.2	56.5	47.1	57.0	59.8	61.5	59.5
(a) Rice							to 58.0					to 60.5
(b) Wheat		44.0	36.0	36.3	38.0	37.5	38.5	42.8	41.0	45.1	45.6	46.0
(c) Coarse grains		32.1	30.0	29.1	30.0	31.1	31.0	27.7	31.0	34.0	33.5	30.0
(d) Pulses		14.5	14.0	10.6	12.5	11.5	13.0	11.9	13.0	12.6	13.0	12.5
							to 13.5					
Total		153.6	135.0	129.6	138.5	133.3	139.0	129.5	142.0	151.5	153.6	148.0
							to 141.5					to 150.0
Oilseeds (All)	Lakh tonnes	130.0	110.0	93.7	112.0	120.8	118.0	100.0	125.0	112.1	130.0	130.0
							to 120.0					
Sugar Cane (Cane)	Million Tonnes	215.0	180.0	154.2	180.0	186.4	180.0	189.5	180.0	177.0	180.0	175.0
							185.0		185.0		185.0	
Cotton (lint)	Lakh bales of 170 kgs each	92.0	81.0	70.1	84.0	78.8	82.0	75.3	82.0	65.8	85.0	85.0
							to 85.0		85.0		88.0	
Jute & Mesta	Lakh bales of 180 kgs each	90.8	83.0	81.6	84.0	83.7	81.0	71.7	82.0	74.1	85.0	78.0
							84.0		85.0			

4.3 *Rice* : Production of rice had touched a record level of 59.8 million tonnes during 1983-84 exceeding The Annual Plan target of 57 million tonnes. The spurt had come after a long spell of stagnation. For 1984-85, a target of 61.5 million tonnes was fixed. However, the production anticipated is 59.5-60.5 million tonnes, which is very close to the previous year's record level.

4.4 *Wheat* : Production of wheat registered a steady increase during the Sixth Plan. Against 36.3

million tonnes in 1980-81, it increased to 42.8 million tonnes in 1982-83 and 45.1 million tonnes in 1983-84. Actual production generally exceeded the Annual Plan targets fixed for wheat. Keeping in view the excellent performance of the crop during the preceding years, the Annual Plan 1984-85 target was pitched higher at 45.6 million tonnes against the original Sixth Plan target of 44 million tonnes. However, according to the present indications, production of wheat during 1984-85 is expected to be 46 million tonnes.

4.5 Coarse Grains : Against the target of 32.1 million tonnes fixed in respect of coarse grains for 1984-85 in the Sixth Plan, the actual production was 31.1 million tonnes in 1981-82, 27.7 million tonnes in 1982-83 and 34 million tonnes in 1983-84. The fall in production during 1982-83 was caused by severe drought in the growing areas. Keeping in view the past trends in production, the Annual Plan target for 1984-85 was fixed at 33.5 million tonnes. However, some shortfall in production is expected due to unfavourable weather conditions in parts of the country. The anticipated production for 1984-85 is only 30-31 million tonnes.

4.6 Pulses : Production of pulses showed a fair measure of steadiness during the Sixth Plan period as compared to the marked fluctuations witnessed during the Seventies. Rising steadily from 10.6 million tonnes in 1980-81, it increased to 12.6 million tonnes in 1983-84. The target envisaged for 1984-85 was 13 million tonnes but the anticipated production is only 12.5 million tonnes.

4.7 Oilseeds : The production of oilseeds, after maintaining an upward trend till 1981-82, showed a fall in 1982-83 mainly due to drought. It again picked up and rose to 12.8 million tonnes in 1983-84 and to 13.0 million tonnes in 1984-85. Thus, the target set in the Sixth Plan for 1984-85 (13 million tonnes) was fully achieved. While groundnut and rapeseed—mustard have contributed substantially to the growth of oilseeds production, the share of non-traditional oilseeds like soyabean and sunflower has also been on the increase.

4.8 Sugarcane : The production of sugarcane maintained good progress during the first three years

of the Sixth Plan, reaching a new record of 189.5 million tonnes in 1982-83. Thereafter, it declined to 177 million tonnes in 1983-84 and 175 million tonnes in 1984-85 which is far short of the Sixth Plan target of 215 million tonnes. There was no significant improvement in the average yield during the Plan period as compared to the highest productivity of 56.1 tonnes/ha. achieved in 1977-78. The record achievement of 1982-83 was mainly due to area expansion.

4.9 Cotton : Production of cotton during 1980-81 to 1983-84 was quite low and the previous record of 7.96 million bales achieved in 1978-79 was surpassed only in the terminal year of the Sixth Plan. The highest level of production achieved in this year (8.50 million bales) also fell very much short of the Sixth Plan target of 9.2 million bales. This is mainly due to fall in area and absence of progress in improving productivity.

4.10 Jute & Mesta : The overall performance of this crop during the Sixth Plan period was not encouraging since even the highest output achieved in 1981-82 (8.4 million bales) was far below the Sixth Plan target of 9.08 million bales. Although the average yield had shown some increase during the Plan period, it could not compensate for the decline in area which fell from 13 lakh hectares in 1980-81 to 10.3 lakh hectares in 1983-84.

Targets of Crop Production for 1985-86

4.11 The targets envisaged for the Annual Plan 1985-86 for major crops are indicated in the following Table :—

TABLE 2
Crop Production Targets for 1985-86

Crop	unit	Targets	
		Seventh Plan 1989-90	Annual Plan 1985-86
Rice	Million tonnes	73-75	63.5
Wheat	"	56-57	49.2
Coarse grains	"	34-35	33.0
Pulses	"	13-15	13.5(14.3)*
Total Foodgrains	"	178-183	159.2
Sugarcane	"	217	191.0
Total Oilseeds	"	18	13.6(15.0)*
Cotton	Lakh bales of 170 kg. each	95	85-86
Jute & Mesta	Lakh bales of 180 kg. each	95	86.5

*Figures in bracket denote operational targets i.e. the total of State target.

4.12 The targets of production envisaged for plantation crops in the Annual Plan 1985-86 along with estimated production in 1984-85 are given in the Table below :—

TABLE 3
Production Targets of Plantation Crops—1985-86

Crops	Unit	1984-85 Anticipated Achievement	1985-86 Target
Tea	Million Kg.	645	651
Coffee	'000 tonnes	138	146
Rubber	'000 tonnes	187	196
Cardamom	Tonnes	3500	3450

4.13 In view of the important role of Horticulture in improving the economic status of the growers, removal of mal-nutrition, soil and environment conservation, employment generation and exports, stress was laid on its development during the Sixth Plan period. By the end of 1984-85, an additional area of 3.25 lakh hectares was brought under fruit crops. Measures for productivity improvement, area expansion and supporting services were undertaken to raise production of fruits and vegetables.

4.14 Under the Seventh Plan, efforts will be made to integrate horticulture with agriculture in hill areas, tribal lands, dryland areas and coastal saline areas for diversifying agricultural production. For this purpose, Research and Development (R & D) efforts as well as services and infra-structural support for improving the quality of output, post-harvest technology and marketing strategy will be intensified. In

keeping with this, various on-going Central and Centrally Sponsored Schemes for development of horticulture will be continued during the year 1985-86. An outlay of Rs. 4.92 crores has been provided for horticulture in the Central Plan for 1985-86. This will supplement the States' efforts in the direction of horticulture development. The Target of production of fruits contemplated for the year 1985-86 is 24.40 million tonnes and that of vegetables 36 million tonnes. Besides, the target of coconut production has been fixed at 6,300 million nuts. For cashew-nut, the target is envisaged at 2.50 lakh tonnes.

Agricultural Inputs

4.15 The all-India targets of selected physical programmes of inputs for the year 1985-86 along with the progress in the Sixth Plan are given in the following Table :—

TABLE 4
Targets of Selected Physical Programmes for 1985-86 and Progress under Sixth Plan

Programmes High Yielding Varieties (Million Hectares)	Plan Target 1984-85	1980-81		1981-82		1983-84		1983-84		1984-85		Annual Plan 1958-86 Target
		Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Paddy	25.0	20.2	18.23	20.69	22.5	18.67	22.5	22.5	22.18	25.0	25.0	26.5
2. Wheat	19.0	17.8	16.10	17.8	16.75	18.0	18.07	18.2	18.55	19.0	19.0	19.5
3. Maize	2.0	2.0	1.58	2.0	1.60	2.0	1.74	1.8	1.81	2.0	2.00	2.2
4. Bajra	5.0	3.7	3.64	3.7	4.58	4.0	4.45	4.7	5.10	5.0	5.0	5.3
5. Jowar	5.0	4.3	3.50	4.3	3.88	4.5	4.75	4.8	4.84	5.0	5.0	5.3
Total	56.0	48.0	43.05	48.5	46.5	51.0	47.68	52.0	52.48	56.0	56.0	58.8
Distribution of Certified Seeds (Lakh Qtls)	54.0	—	25.0	—	29.8	40.0	42.1	48.0	57.7	77.0	70.4	89.0
Consumption of Chemical Fertilizers (Lakh Tonnes)												
Nitrogenous (N)	60.0	40.0	36.78	44.0	40.69	46.7 to 48.0	42.24	48.0	52.05	56.5	56.44	63.5
Phosphatic (P)	23.4	13.0	12.14	14.7	13.22	15.3 to 15.7	14.37	16.0	17.30	19.0	18.65	22.0
Potassic (K)	13.1	7.0	6.24	7.3	6.73	8.0 to 8.3	7.27	8.0	7.75	8.5	8.65	10.0
Total	96.5	60.0	55.16	66.0	60.64	70.00 to 72.00	63.88	72.0	77.10	84.0	83.74	95.5
Pesticides (Technical Grade Material) ('000 tonnes)	80.0	62.0	45.0	66.0	47.0	72.0	50.0	72.0	55.0	75.0	50.0	55.7
Area under Soil Conser- vation (Cumulative) (Million Hectares)	30.5	24.2	24.37	25.0	25.39	27.0	26.52	27.6	27.97	—	29.88	30.0

4.16 *Fertilizers and Manures* : The Sixth Plan aimed at a consumption target of 96.5 lakh tonnes of fertilizer in terms of nutrients by 1984-85. The actual consumption during the first three years of the

Plan was much below the targets of the respective years. In the last two years of the Plan, however, consumption of fertilizer increased substantially. Average consumption during the five years of the

Plan increased at the rate of about 6 lakh tonnes per annum, from a level of 56.2 lakh tonnes in 1979-80 to 84 lakh tonnes in 1984-85. Per hectare consumption of fertilizer also increased from 35 kgs. to 50 kgs. in 1984-85.

4.17 To increase the fertilizer consumption, Government has taken a number of steps for timely supply of fertilizers to the farmers. These included intensive fertilizer promotion campaign launched in 1982-83, which was extended to 104 districts in 1984-85. For promoting fertilizer use, a special campaign for farmers and dealers and Kisan Melas to encourage farmers for soil testing was also taken up during 1984-85. About 4000 additional fertilizer retail outlets were opened. Analysis of over 75,000 soil samples in districts selected for fertilizer promotion campaign was carried out. For efficient fertilizer movement and timely delivery, the average lead of haulage of fertilizer had gone up to 1100 kms. during 1980-81, which was reduced to about 1000 kms. in 1983-84 as a result of steps taken to rationalise the movement of fertilizers.

4.18 In regard to quality control of fertilizer, 405 soil testing laboratories with a capacity of 5.87 million soil samples functioned during 1984-85 against 386 laboratories with a capacity of 5.64 million in 1983-84. Capacity of testing fertilizer samples in 42 fertilizer control laboratories in different States was increased to 71,000 per annum, with the Central Fertilizer Quality Control Institute Laboratory having a capacity of 5,000 samples per annum. Three more laboratories for testing samples for fertilizer imported at ports were sanctioned to be set up at Madras, Bombay and Kandla during 1984-85.

4.19 Under the National Project of Bio-Fertilizer sanctioned during 1982-83, a National Centre in Delhi, six Regional Centres for production of quality rhizobium culture and blue green algae (BGA) and 40 Sub-Centres for production of blue green algae were established during the Sixth Plan period.

4.20 Keeping in view the requirement of increased fertilizer consumption to achieve the Seventh Plan targets of agricultural production, a target of 95.5 lakh tonnes of NPK has been fixed for 1985-86. Work on continuing schemes of handling of fertilizer at Ports, Storage Facilities and Fertiliser Quality Control through Central and State laboratories is to be intensified. Staff and equipment for laboratories sanctioned for analysis of imported fertiliser at three ports will be provided during the year. Preparatory work for establishment of fertiliser handling and storage nodal centres as also movement of fertilizer in bulk by rail and other modes of transport will also be initiated.

4.21 *Seeds* : The Government has taken a number of steps to increase the production and distribution of breeder, foundation and certified seeds of cereals, including pulses, fibre crops, vegetables and potato. These include distribution of breeder seed through private sector, strengthening of seed production and certification by the State Seed Corporations and State

Seed Certification Agencies, construction of additional processing and storage capacity and ensuring availability of sufficient quantities of quality seed to the States well before the sowing season.

4.22 The production and distribution of certified/quality seeds registered a phenomenal growth during the Sixth Plan period, rising from 14 lakh quintals in 1979-80 to 70 lakh quintals in 1984-85. Similarly, production of breeder seed increased substantially from a level of 687 quintals in 1979-80 to 34,600 quintal in 1984-85 and that of foundation seed from 92,000 quintals to 4.50 lakh quintals.

4.23 Breeder, Foundation and Certified seeds are to be produced and distributed in larger quantities during 1985-86. A target of distribution of 80 lakh quintals of certified/quality seed has been fixed for 1985-86 against the achievement of about 70 lakh quintals in 1984-85. To produce and distribute seed in such a large quantity, appropriate arrangements for production and distribution of seed are to be made through development of existing farms of National Seed Corporation, State Farms Corporation of India and Farms of State Seed Corporations and State Governments. During the year, the programmes for creating additional capacity for processing and storage of reserve stock of seeds and also stocking seed for contingency requirement are to be undertaken.

PLANT PROTECTION

4.24 During 1984-85, there was no serious outbreak of any plant disease or attack of pests/insects. Integrated pest management practices were pursued by the State Governments under the guidance of the Union Department of Agriculture which continues surveillance of pests and disease and assists the States for plant protection measures under the Centrally Sponsored Scheme for 'Control of Endemic Pests and Diseases including pests of National importance and Weed Control'.

4.25 For quality control of pesticides, the State Governments strengthened their Insecticides/Pesticides Laboratories. The Pesticides Quality Control Laboratory at Faridabad analysed about 1400 samples of pesticides, their formulations and residues in market samples of agricultural produce. To improve the efficiency of the personnel engaged in pest management and other plant protection work, suitable training courses were organised at the Central Plant Protection Training Institute, Hyderabad. In 1984-85 about 500 persons including subject matter specialists were trained against the target of 750 persons.

4.26 A target of consumption of 55,000 tonnes of pesticides (technical grade material) has been fixed for 1985-86. Under Plant Protection, the existing facilities of surveillance, biological control of insects/pests and quarantine facilities, would be strengthened during the year. The Enforcement Cell for Plant Protection created during the Sixth Plan period is to be strengthened. One or two helicopters/aircrafts are likely to be added to the existing fleet of Agricultural Aviation Directorate of the Department of Agriculture and Co-operation. For 1985-86, a target of 2 lakh hectares

to be covered by aerial spraying is contemplated. Some additional area is also proposed to be covered under the Centrally Sponsored Scheme for eradication of Insects/Pests and diseases, including pests of national importance and weeds, during the year.

4.27 *Agricultural Implements and Machinery* : To ensure production of agricultural implements and machinery, according to the desired standards of quality, two Training and Testing Institutes at Budni in Madhya Pradesh and Hissar in Haryana continued their activities and the third training Centre, now re-named as "Machinery Training and Testing Institute for Southern Region" was set up in Andhra Pradesh during the Sixth Plan period. Testing time of tractors has been reduced from 12—14 months to 8—10 months and that of combined harvestors from 12 months to 7-8 months. These testing and training Institutes organised a number of courses for training of farmers/technicians, engineers and Government staff.

4.28 The Centrally Sponsored Scheme for setting up of farmers' Agro-Service Centres was implemented in 600 blocks in the country at the rate of 2 per block. The Department of Agriculture and Cooperation also took certain steps for promotion of improved agricultural implements and handtools. A Krishi Auzar Mela was organised at the Northern Region farm Machinery Training and Testing Institute, Hissar in September, 1984. The Department of Agriculture and Cooperation took part in the Fair held at Nagpur as also in the Indian International Trade Fair at New Delhi during 1984-85.

4.29 Additional facilities for testing and training will be created during 1985-86 at the existing Training and Testing Institutes at Budni and Hissar. The Southern Regional Testing and Training Centre at Anantpur in Andhra Pradesh will be provided with necessary equipment and staff. For 1985-86, targets of training 1,350 persons and testing of 55 machines have been fixed for the existing Institutes at Hissar and Budni. A target for training 150 persons at Southern Training and Testing Centre, Anantpur has also been kept for the year.

4.30 The Centrally Sponsored Scheme for establishment of Farmers' Agro-Service Centres would be continued during the year 1985-86, with the targets of coverage of more blocks, 24,000 demonstrations and distribution of 1.25 lakh implements and 2.3 lakh handtools on subsidised basis.

Agricultural Extension

4.31 The Sixth Plan laid special emphasis on strengthening of extension machinery to carry out the programmes of transfer of technology and train the farmers to improve their skills. In this context, re-organisation of the agricultural extension service under the Training and Visit (T & V) system was taken up in 13 States during the Plan period. This system, despite several difficulties associated with innovative measures, played a significant role by making perceptible contributions in the form of introduction of new crops in non-traditional areas, new crop rotations, increasing the intensity of cropping, etc. Under this system, attention was also given to improve the educational and

technical competence of the extension functionaries and also to bring about close linkages between Agricultural Universities, Extension Wings of the State Agricultural Departments and the farming community. A new Project called the National Agricultural Extension Project (NAEP-I) was taken up with World Bank assistance, which covered three States of Orissa, Madhya Pradesh and Rajasthan, and provided for the strengthening of the Directorate of Extension, Extension Educational Institutions and setting up of National Institute of Extension. NAEP-I was a Centrally Sponsored scheme consisting of special sub-projects to bridge the existing gaps and rectify weaknesses in the on-going projects.

4.32 Keeping in view the past performance and the weaknesses of the T & V system, all possible steps are proposed to be taken during the Seventh Plan period to streamline and strengthen the extension service. Some of the aspects which would receive attention relate to : (i) coordination between T & V system and supply of inputs and related services; (ii) linkages between the Research Institutions, Agricultural Universities and Extension set-up in different States; (iii) orientation of extension programme to specific conditions; and (iv) building up of internal strength of operational functionaries by sharing experience through actual field visits, motivating them through incentives and recognition and equipping them with adequate professional skills.

4.33. In keeping with the thrusts envisaged for the Seventh Plan, the on-going schemes would be continued during 1985-86. Preparatory work on some new programmes like NAEP-II and strengthening and re-organisation of Agricultural Extension in small States/Union Territories are also envisaged. An outlay of Rs. 3.68 crores has been provided in the Central Plan for 1985-86 for Agricultural Extension and Training Programmes.

Agricultural Marketing

4.34 The three Central sector schemes for establishment/development of regulated markets, rural markets and grading centres hitherto in operation would be integrated into one scheme for development of agricultural produce markets in the year 1985-86. This revised scheme would cover all markets handling the produce of agriculture, horticulture, pisciculture, sericulture, floriculture, poultry and live stock. In addition, a number of associated programmes like market survey and investigation, strengthening of agmark grading facilities, training and extension would be continued. It is proposed to cover 40 regulated markets, 10 terminal markets for fruits and vegetables and 300 primary rural markets during 1985-86, for which an outlay of Rs. 8.25 crores has been provided in the Annual Plan 1985-86.

4.35 Action will be initiated to set up a National Centre for Agricultural Marketing to conduct research and provide consultancy service to the State Governments and other organisations on the problems of agricultural marketing.

Rural Godowns

4.36 The Centrally sponsored scheme of National Grid of Rural Godowns for providing storage facilities in the rural areas particularly to small and marginal farmers for storing mainly inputs, seasonal vegetables, fish and minor forest produce would be continued during 1985-86. A target of construction of additional 4 lakh tonnes of storage capacity is envisaged for the year, with an outlay of Rs. 6 crores.

Storage and Warehousing

4.37 An additional storage capacity of 13.77 lakh tonnes was created during the year 1984-85, against the target of 14.37 lakh tonnes. For 1985-86 the target has been fixed at 27.25 lakh tonnes, with an outlay of Rs. 90.52 crores. Details, agency-wise, are given in the Table below :—

TABLE 5

Targets of Additional Storage Capacity 1985-86

Agency	1984-85		1985-86		Outlay	Total
	Target	Achievement	Target	Budgetary support		
	(Lakh Tonnes)		(Rs. in crores)		Extra Budgetary Resources	
(i) Food Corporation of India	7.25	7.31	15.25	68.00	—	68.00
(ii) Central Warehousing Corporation	3.12	3.25	6.00	1.52	17.00	18.52
(iii) State Warehousing Corporation	4.00	3.21	6.00	2.00	2.00	4.00
TOTAL	14.37	13.77	27.25	71.52	19.00	90.52

Food Processing

4.38 The Agro-Industrial complex at Hajipur, Bihar for fruit and vegetable processing, which is in an advanced stage of construction, is likely to start operation in 1985-86. The North Eastern Regional Agricultural Marketing Corporation (NERAMAC) is setting up a pine-apple and orange juice concentrate plant at Kumarghat in Tripura. The Modern Food Industries (India) Ltd. (MFIL) is setting up new projects at Silchar in Assam and Bhagalpur in Bihar.

4.39. An outlay of Rs. 3.95 crores has been provided for in the Annual Plan 1985-86 for Food Processing.

Dryland/Rainfed Farming

4.40 For achieving stability and increase in agricultural production, especially of coarse cereals, pulses, oilseeds, cotton and other rainfed crops, development of dryland/rainfed farming is of critical importance. Under the thrust of the 20-Point Programme, both intensive and extensive approaches were adopted for the development of dryland/rainfed farming. Under the intensive approach, integrated development of selected micro-watersheds was envisaged. The extensive approach comprised of promoting the adoption of available technologies like use of improved and drought resistant seeds, fertilizers, implements such as the seed-cum-fertilizer drills, etc. It is significant to note that, by the end of 1984-85, over 4400 micro-watersheds covering an area of nearly 42 lakh hectares were taken up for intensive development. Out side the watersheds, an area of 120.4 lakh hectares was brought under various dryland farming practices. Further, two schemes, one for the propagation of Water Conservation/Harvesting Technology for Dry Farming Areas (Central Sector Scheme) and the other for Development of Dryland Agriculture through popularisation of

seed-cum-fertilizer drills (Centrally Sponsored Scheme) were introduced. These schemes were in operation in 19 selected districts located in 15 States during the Sixth Plan period. A World Bank assisted Pilot Project for Watershed Development in Rainfed Areas was also initiated in the States of Madhya Pradesh, Maharashtra, Karnataka and Andhra Pradesh. The Govt. of India also undertook 46 Model Watershed Development Projects for implementation in collaboration with the Indian Council of Agricultural Research (ICAR) and State Governments.

4.41 Under the Seventh Plan, high priority is assigned to the development of dryland/rainfed farming. The development strategy envisages provision of area-specific technological packages, inputs, and services. The Central Sector Scheme for Propagation of Water Conservation/Harvesting Technology for Dryland Farming will be continued during 1985-86. This scheme includes components like land development, water resources development and utilisation, improved cropping system, horticulture, agro-forestry and pasture development. Similarly, the Centrally Sponsored Scheme for Development of Dryland Agriculture through popularisation of seed-cum-fertilizer drills will also be continued. The aim of this scheme is to lay out demonstrations on farmers' fields with the use of improved implements like seed-cum-fertilizer drills and the use of improved seeds and fertilizers. A National Watershed Development Programme for Rainfed Agriculture is under active consideration of the Government of India. It would have components like land development, rain water management, demonstration of improved cropping systems, provision of farm implements and machinery, plantations and pastures, infrastructure/organisational support, manpower development, etc. A provision of Rs. 51 lakhs has been made for dryland farming activities in the Central Plan for 1985-86.

Soil and Water Conservation

4.42 By the end of Sixth Plan period, the area treated under Soil and Water Conservation measures was about 29.4 million hectares. The two vital on-going Centrally Sponsored Schemes that are to be continued and pursued with greater vigour in the Annual Plan 1985-86, relate to the Soil Conservation in the Catchments of River Valley Projects and Integrated Watershed Management in the Catchments of Flood-prone Rivers in the Indo-gangetic Basin. Like-wise, the on-going schemes in the Central Sector relating to strengthening of the State and Central organisational structure as well as other development programmes will be continued during 1985-86.

4.43 Apart from the implementation of various schemes, attention will have to be focussed on their efficient functioning. It is necessary that for this purpose as well as for a more meaningful involvement of the beneficiaries, lacunae in the Soil Conservation Acts enacted by the 14 States and 2 Union Territories are removed. The legislation has to be broad-based and it should cover the entire country in course of time.

4.44 Considerable importance is attached to the monitoring of programmes for not only assessing their impact but also for taking remedial measures wherever necessary. Some efforts for the monitoring/evaluation of the Soil and Water Conservation programmes have already been initiated and these need to be intensified both at the Central and State levels.

Land Reclamation & Development

4.45 The problem of soil degradation is acute as revealed by the fact that about 80 million hectares out of a total net cultivated area of 140 million hectares suffer from varying degrees of soil debility. This affects crop production and productivity as also the environmental profile. Close attention is, therefore, needed for the restoration of soil health through reclamation/development measures. Not only is the increase in production and productivity dependent on such ameliorative steps but the ecological balance so essential for human survival also hinges on this.

4.46 The extent of problematic areas of various categories has been estimated at 38.55 million hectares. These have to be developed through a phased programme with appropriate supporting services like technological practices, trained personnel, public outlay and participation of institutional agencies and beneficiaries. Certain impediments in the implementation of this programme during the earlier Plan periods have surfaced. These cover a wide range of factors such as insufficient data base, inadequate availability of soil amendments, poor participation of beneficiaries, legal factors, high investment, long gestation of development works, etc.

4.47 The strategy envisaged for the Seventh Plan would encompass not only a systematic survey of different categories of degraded and wastelands but also

appropriate technical output from the ICAR and State Agricultural Universities. Besides, the organisational capabilities both at the Centre and in the States, have to be strengthened. The apex bodies at the State level, viz. the State Land Use Boards, will have to prepare perspective plans for the long-term implementation of this programme taking into account the relevant parameters.

Agricultural Research and Education

4.48 Under Crop Sciences, a number of varieties, early maturing and high yielding, were evolved during the Sixth Plan period. In the case of horticultural crops, hybrid variety of papaya, passion fruit hybrid "Caveri", two exotic cultivators of apple, etc. were released. The Central Plantation Crop Research Institute, Kasaragod, succeeded for the first time in producing plantlets of coconut through tissue culture using tender leaf segments. Several parasites and nematode species affecting different crops have been identified. Agronomic research on the most promising crop sequence, in terms of biological productivity and economic profitability for different regions under optimum input conditions was carried out.

4.49 The bio-technology programme was initiated at the Indian Agricultural Research Institute, New Delhi, with associate centres at the National Dairy Research Institute, Karnal and the Indian Veterinary Research Institute, Izatnagar. Research areas receiving special attention were water and fertilizer-use efficiency, integrated nutrient management, pest management and energy management.

4.50 Under the Soil and Water Management Programme, the National Bureau of Soil Survey and Land Use Planning undertook reconnaissance survey of 1.57 million hectares covering 13 States. Management of run-off water for storage and recycling in the Dehradun area offered good possibilities of improving crop production. Different varieties of important crops relatively tolerant to saline water have been identified. Experiments on a single irrigation at the vegetative growth stage proved superior to delayed irrigation at the pre-development stage.

4.51 In respect of poultry and fur animals, a number of exotic strains have been introduced and utilised for ultimately increasing livestock production in different agro-ecological conditions of the country. New strains have been evolved and released in poultry, showing higher egg production, larger egg size and higher body weight of birds. Under animal health, research was conducted on the epidemiology of Foot and Mouth Disease. Emphasis was also laid on developing suitable diagnostic methods and prophylactic measures against the various nationally important livestock diseases. At the Central Sheep and Wool Research Institute, Avikanagar, Rajasthan, "Avikalin", a superior carpet wool strain, and "Avivastra", an apparel wool strain of sheep were further improved through rigid selection. A number of non-conventional feed

resources like feed-urea have been identified and suitable methodology developed to improve the nutritional value of straws and other crop residues.

4.52 In the marine capture and culture fisheries, notable contributions were in regard to remote sensing, tagging, prawn seed production, culture of milk fish and conservation of endangered species. On the inland side emphasis was laid on 'Off-season' breeding of carps, brackish-water aquaculture, pen-culture and integrated culture of carps. Study of suitable crafts and gear and post-harvest technology also received due attention. A new 2-year post-graduate course in fisheries leading to M.Sc. was initiated for the first time in addition to the on-going diploma and training courses.

4.53 During the year 1984-85, 23 Krishi Vigyan Kendras (KVSs) were established, bringing their total to 85. Ten new Operational Research Projects (ORPs) were initiated on mixed farming, reclamation of degraded soils, fisheries, mobilisation of rural poor for agrarian development, etc. Forty-eight ORPs relating to resource development on watershed basis were initiated in collaboration with the Departments of Agriculture and Rural Development. A National Demonstration Project was introduced in the Andaman and Nicobar Islands, bringing the number of districts covered under this project to 40. During the year, the Lab-to-land Programme entered the third phase, covering 75,000 economically deprived farm families.

4.54 The ICAR continued to support the development of all the 23 agricultural universities in different States, and new academic programmes and colleges were started during the year. Under the National Agricultural Research Project, additional financial assistance was provided to the agricultural universities to improve their capabilities for location-specific regional research. Twenty-one summer institutes on important disciplines of agriculture and allied sciences were organised to impart training.

Programme for 1985-86

4.55 The priority areas identified in respect of crop sciences for 1985-86 are : (a) developing suitable technologies for improving productivity of rice in eastern-India for upland and lowland areas; (b) developing wheat and maize varieties suitable for stress conditions and showing at the same time resistance to major diseases and pests; and (c) evolving improved varieties of pulses and oilseeds resistant to major diseases, with emphasis on early maturity.

4.56 Research on dry land agriculture will receive maximum emphasis in terms of developing specific agro-techniques, inter-cropping and multiple cropping system. Special attention will be given to arid zone, saline and alkaline, cold desert, north eastern hills, etc. Greater emphasis will be laid on popularisation of improved farm machinery and implements.

4.57 Livestock improvement programmes will be expanded in scope to include the improvement of well-established indigenous breeds of cattle and buffaloes. During the year 1985-86, the existing All-India Coordinated Research Project on buffaloes would be strengthened with respect to infra-structural facilities. The programme of research in this project will be suitably linked with the facilities created at the Central Institute for Research on Buffaloes started recently at Hissar. The activities of apparel wool and mutton production in sheep would be strengthened. Also, research effort will be in the direction of improving carpet wool and pelt production. Studies would also be initiated in the year 1985-86 on improving the technology of indigenous dairy products and their packaging and transportation.

4.58 It is proposed during 1985-86 to accelerate work on stock assessment of marine fisheries, linking resource with environmental changes, sea farming, hatchery development and transfer of technology through pilot projects. On the inland side, the major thrust will be on genetic upgradation of carps, feed formulation, fish diseases, integrated fish culture and brackish-water fish and prawn culture. The establishment of National Bureau of fish genetics and brackish-water research Institute will also be initiated. The technological aspects will include development of suitable fishing boats and gear and processing and handling of fish. The major thrust in fisheries education will include post-graduate and doctoral programme leading to the first deemed University in Fisheries in the country.

4.59 With the setting up of a National Biotechnology Board, the emphasis on biotechnology including genetic engineering and molecular biology has been stepped up. Research on Biotechnology would be organised at the three National Research Centres-one each in crop production, animal production and animal health and Agricultural Universities in selected areas.

4.60 The scope of extension education projects would be enlarged to cover other fields like animal husbandry, fisheries and horticulture. Special emphasis will be given to the transfer of improved technology in agriculturally backward areas. The operational research projects will cover larger areas with proper emphasis on improving production of oilseeds and pulses.

4.61 In agricultural education, the programmes relating to (i) Institutional development, (ii) qualitative improvement of agricultural education and research; and (iii) man-power development will be continued during 1985-86 with modified approach and strengthening, wherever necessary. Steps would be taken to set up new advanced centres for post-graduate agricultural research and education to cover new disciplines. Courses in agricultural management would be introduced in the National Academy of Agricultural Research and Management (NAARM) to develop appropriate understanding of the emerging disciplines. Human Resource Development will receive additional emphasis.

Cooperation

4.62 The progress in the accomplishment of targets

set out in the Annual Plan 1984-85 in respect of important cooperative programmes and the corresponding targets envisaged for 1985-86 are given below :—

TABLE 6
Targets and Achievements—Cooperation

Item	1984-85		1985-86
	Target	Anticipated achievement	Target
1	2	3	4
(i) Short-term loans	2500	2500	2800
(ii) Medium term loans	240	250	300
(iii) Long term loans	550	500	600
(iv) Value of agricultural produce marketed through cooperative	2700	2700	3000
(v) Value of retail sale of fertilizers	1500	1500	1700
(vi) Value of consumer goods distributed in urban areas	1400	1400	1700
(vii) Value of consumer goods distributed in rural areas	1500	1400	1700

4.63 There was shortfall in the disbursement of cooperative long term loans during 1984-85, due to existence of high level of overdues with the land development banks in several States, which resulted in reduced eligibility of these banks for refinance from the National Bank for Agriculture and Rural Development (NABARD). The value of consumer goods distributed in rural areas also fell short of the target laid down in the Annual Plan on account of less developed distributive channel and non involvement of the primary agricultural credit societies in the distribution of essential consumer articles in some areas.

4.64 Significant expansion in the disbursement of short-term, medium term and long term loans through cooperatives is envisaged during 1985-86. Steps would be taken for integration of short-term and long term credit in a phased manner. Concerted measures would also be taken to improve the recovery position of the cooperative credit institutions and reduce their overdues. Efforts would be continued to ensure increase in the flow of institutional credit to small farmers, marginal farmers, tenants, share croppers, agricultural labourers, rural artisans and self-employed.

4.65 To push up the sale of fertilizers through the cooperatives, the number of cooperative retail outlets in rural areas is proposed to be increased from 70,000 in 1984-85 to 75,000 by the end of 1985-86. It is also proposed to forge effective links between the marketing cooperatives and public sector corporations like the Food Corporation of India, Cotton Corporation of India and Jute Corporation of India.

4.66 The consumer cooperatives in urban areas as well as rural areas would be strengthened to enable them to play a larger role in the public distribution system. To facilitate supply of inputs and essential goods, it is proposed to take up a larger programme for construction of cooperative godowns in 1985-86 under the normal State Plans and the foreign aided projects.

Animal Husbandry

4.67 The targets for 1985-86 and anticipated achievements for 1984-85 in respect of selected programmes of Animal Husbandry are given in the Table below :

TABLE 7
Targets for 1985-86 and anticipated achievements of 1984-85

Item	1984-85		Target 1985-86
	Targets	Anticipated achievement	
(i) Milk	37.75	38.80	40.90
(ii) Eggs	13,000	13,475	14,560
(iii) Wool	39.10	37.15	38.40
(iv) Intensive cattle dev. projects	124	122	132
(v) Frozen semen bull stations	50	48	50
(vi) Inseminations with exotic bull semen	10.14	8.38	9.23
(vii) Cross-breed female animals.	—	4.48	5.03
(viii) Liquid milk plants	157	166	176
(ix) Milk products factories	22	25	26
(x) Intensive egg & poultry production-cum-marketing centres.	110	111	119
(xi) Sheep & wool extension centres.	1386	1475	1506
(xii) Veterinary hospitals & dispensaries.	14451	14849	15,771

4.68 The programme of cross-breeding of low yielding cattle and improvement of buffaloes was continued, and 8.38 million inseminations were done with semen of high genetic merit bulls during 1984-85. The Central Scheme to develop infrastructure for effective use of frozen semen technology in areas outside the Operation Flood II Project was implemented in 16 States. Four frozen semen stations were established in Kerala, Punjab, Nagaland and Tripura during 1984-85. The Central Frozen Semen Production and Training Institute, Hessarghatta (Bangalore) continued production of high quality frozen semen of cattle/buffalo breeds and imparted training to technical personnel on the various aspects of frozen semen technology for improving the productivity of cattle and buffaloes. The Centrally Sponsored Scheme relating to the progeny testing of cross-bred bulls under the field conditions was continued during the year in Punjab, Kerala and Assam so as to identify and assess the breeding value of cross-bred bulls. The proven bulls were utilised for inter-se breeding under the cross-breeding programmes.

4.69 The seven regional forage production-cum demonstration stations and the Central fodder seed production farm, Hessarghatta produced over 2,800 quintals of foundation/certified seeds of fodder and pasture grasses as well as legumes for use by the State Governments as well as by the farmers. As many as 66,000 minikits were supplied to the farmers in the major milk sheds in the country and over 7,600 demonstrations were conducted during the year 1984-85 in different agro-ecological zones using high-yielding varieties of fodder crops.

4.70 The four Central Poultry Breeding Farms at Bombay, Bhubaneswar, Chandigarh and Hessarghatta (Bangalore) continued to be engaged in scientific poultry breeding programme in order to supply parent stock and hybrid chicks to the State farms and farmers respectively. Besides, broiler strain were evolved and supplied to the State farms for further multiplication to meet the growing requirements of farmers in different States. The Central Duck Breeding Farm, Hessarghatta and the N.E.C. Duck Breeding farm Tripura continued the supply of improved Khaki Campbell ducklings, acclimatised to Indian conditions, to various State farms for further multiplication. The two Central Feed Analytical Laboratories at Hessarghatta and Chandigarh provided feed analytical facilities to the various poultry production organisations and farmers during the year. The two additional central feed analytical laboratories at Bombay and Bhubaneswar were in the various stages of implementation and are likely to become operational in 1985-86.

4.71 The Central Sheep Breeding Farm, Hissar continued the supply of good quality rams to various States during the year for their sheep and wool improvement programmes through cross-breeding for improving the quality of both wool and mutton. Thirty-four sheep and wool extension centres were started in various States in 1984-85, making total of 1475 centres by the end of Sixth Plan period.

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4.72 A programme for the systematic control of livestock diseases of national importance like T.B., Brucellosis, Contagious Bovine Pleuro-pneumonia, swine fever, canine rabies, Marek's disease and pul-lorum was implemented during the year. Under this programme a beginning was also made for the creation of a disease-free zone comprising the three southern most districts of Kanyakumari, Trivandrum and Quilon so as to help boost the country's foreign trade in live-stock and livestock products. 726 veterinary hospitals and dispensaries were set up in various States and Union Territories during 1984-85, making a total of 14849 such institutions by the end of Sixth Plan period.

4.73 The programme of cross-breeding of cattle with exotic dairy breeds of cattle and upgrading of buffaloes would be further intensified in all the States. It is envisaged to reach a level of 9.23 million inseminations with exotic bull semen in 1985-86. Besides, the scheme of Progeny testing of cross bred bulls under field conditions in the States of Punjab, Kerala and Assam would be continued in an intensive manner. It is targetted to establish 10 intensive cattle development projects, two each in the States of Assam, Gujarat, Jammu & Kashmir and one each in Kerala, Rajasthan, Tamil Nadu and West Bengal in 1985-86. Greater attention would be given to the development of various nationally important indigenous Campbell breeds of cattle such as Gir, Rathi, Kankrej, Haryana, Ongole Hallikar, Amrit Mahal, Kangayam, Magore, some of which are also internationally recognised for their draught power and disease and heat resistant qualities. In this context, it is proposed to strengthen and develop certain selected State cattle and buffalo breeding farms for these breeds on scientific lines.

4.74 The seven regional stations for forage production and demonstration will continue to demonstrate in farmers' fields the improved production technology in respect of high yielding varieties of fodder crops and also produce foundation and certified fodder seeds for further multiplication and distribution to the State and farmers during the year 1985-86. These stations would be holding training courses in fodder production technology for field level officers of various State and Union Territories as also dairy federations corporations. It is proposed to considerably enlarge the Minikit demonstration programme during 1985-86 so as to have a wider coverage in all the States and Union Territories of the country.

4.75 In order to achieve further genetic improvement in poultry, the infrastructural facilities at the four Central Poultry Breeding Farm at Bhubaneswar, Hessarghatta, Bombay and Chandigarh would be strengthened in 1985-86 for taking up scientific breeding programme in both egg and meat type strains. The Central Training Institute for Poultry and Duck Production at Hessarghatta would be strengthened by way of infrastructural and other facilities to meet the growing requirements of trained manpower. The feed analytical laboratories at Hessarghatta and Chandigarh would continue to analyse poultry feed samples for the public and private sector organisations. Two such new laboratories at Bombay and Bhubaneswar would become operational in 1985-86. As

many as eight intensive egg and poultry production-cum-marketing centres would be established in 1985-86, one each in Gujarat and Kerala, two in Rajasthan and four in Uttar Pradesh.

4.76 The programme for the control of diseases of national importance would be continued. Further action would be taken for the creation of disease free zone in Kerala and Tamil Nadu. Action would also be initiated for taking up construction work etc. in respect of the National Veterinary Biological products quality control centre at Gurgaon. It is proposed to implement the scheme for the establishment of five regional disease diagnostic laboratories as a Central scheme to supplement the State efforts in the field of diagnosis of various livestock diseases. Besides, action would be taken for the setting up or strengthening of a few poultry disease diagnostic laboratories in the areas of intensive poultry production in the country. As many as 922 new veterinary hospitals and dispensaries would be established, making a total of 15771 such institutions by the end of 1985-86.

4.77 It is proposed to expand the Central Sheep Breeding farm, Hissar during 1985-86 to meet the growing requirements of good quality rams for the States and farmers. Keeping in view the demand for fine wool sheep, it has been decided that corriedale breed of sheep be replaced with fine wool Rambouillet breed at this farm. It is, therefore, proposed to import about 1000 Rambouillet sheep from USA during 1985-86. Attention would also be given to augmentation of mutton production. It is proposed to set up as many as 31 sheep and wool extension centres in various States in 1985-86. It is also proposed to provide financial assistance to the State Wool Marketing Federations in Gujarat, Karanataka, Maharashtra and Jammu & Kashmir to improve their working.

Diary Development

4.78 Under the Operation Flood-II Project, the amount of Rs. 245.37 crores was generated by the Indian Dairy Corporation till March, 1985 through sale of gift commodities, i.e. butter oil and skimmed milk powder as against Rs. 198.96 crores generated by the end of March, 1984. The Indian Dairy Corporation disbursed till March, 1985 about Rs. 274.12 crores for furthering the project activities in different States and Union Territories.

4.79 By the end of October, 1984, 21 States and 4 Union Territories had executed the necessary agreements with the Indian Dairy Corporation (I.D.C.) for the implementation of Operation Flood II Project. Field programmes were initiated in 18 States and 3 Union Territories. Negotiations will be carried out between the I.D.C. and the Government of Meghalaya to finalise the agreement so as to initiate field programmes in the State. Efforts would also be made to start field programmes in the remaining States of Nagaland, Karanataka, Manipur and the Union Territory of Mizoram during 1985-86.

4.80 For the smooth implementation of Operation Flood II Project in various States and Union Territories, necessary provision for (i) margin money for raising the working capital for the purchase of milk and also for ensuring timely payment to the farmers; (ii) purchase of land; and (iii) providing electricity and water facilities to the various milk plants falling in the areas covered by the Operation Flood II Project as well as in areas outside the project have been made in the State Plans for 1985-86. Various constraints and bottlenecks hampering its progress are being identified and suitable remedial action would be taken. Accordingly, it is proposed to organise State Dairy Councils in various States in order to monitor the various dairy development projects.

4.81 The Centrally Sponsored ongoing integrated dairy development projects in Assam and Jammu & Kashmir would be continued during 1985-86 besides the extension of this programme to the States of Meghalaya and Orissa. In the State sector, the dairy development programme would be mainly confined to the consolidation and strengthening of existing dairy plants with a view to making them economically viable. Steps would also be taken to manufacture and market traditional milk products like khoa in areas which are quite away from the good transport and communication system. This would naturally help the farmers of remote and backward areas to get remunerative price for their produce. This programme would bring about the necessary socio-economic changes in these backward regions of the country.

Fisheries

4.82 In the marine sector, the number of commercial deep sea fishing vessels increased from 75 to 150 during 1984-85. In order to diversify fishing operations, preference was given to Tuna fishing and Squid jigging. One-third of the total marine fish production of 17.50 lakh tonnes was contributed by the 2,000 mechanised boats introduced upto 1984-85. The value of sea-food export reached a level of Rs. 383 crores during 1984-85.

4.83 The operational area of Fisheries Survey of India (FSI) was enlarged by increasing the fleet and capabilities. The FSI surveyed 34,000 sq. km. of Exclusive Economic Zone (EEZ) during the year. In addition, 64,000 sq. km. were partially surveyed besides 32,000 sq. km. monitored upto the end of 1984-85. The Integrated Fisheries Project, Central Institute of Fisheries for Nautical and Engineering Training and Central Institute of Coastal Engineering for Fisheries were strengthened to enlarge their scope and functioning.

4.84 Out of the six major fishing harbours under construction, the four at Roychowk (Calcutta), Madras, Cochin and Visakhapatnam have been commissioned. The work is in progress at Sassoon Dock (Bombay) and the work at Paradeep Harbour in Orissa will be taken up very soon. In addition to the above mentioned major harbours, landing and berthing facilities were also provided at 59 small landing centres and 9 minor fishing harbours.

4.85 In the Inland Sector, main emphasis was laid on scientific fish farming. The number of Fish Farmers' Development Agencies (FFDA) increased from 129 to 147. These agencies have so far brought more than 1 lakh hectares of tanks and ponds under scientific fish culture for increasing fish production. The agencies have also trained 53,000 fish farmers in improved methods of fish culture besides giving them extension support and supplying input for fish culture.

4.86 Out of 26 commercial fish seed hatcheries envisaged under the Inland Fisheries Project with World Bank assistance, 10 fish seed farms/hatcheries started partial operation during 1984-85. Sanctions were also issued to take up construction of 25 fish seed farms/hatcheries of 10 hectares each under the National Fish Seed Programme in the States not covered by the Inland Fisheries Project mentioned above.

4.87 During the year, there was a phenomenal improvement in fish seed production in the country. Against the base level of 1048 million during 1979-80, the fish seed production reached a level of 5639 million in 1984-85. This achievement was mainly due to introduction of circular type Eco-hatcheries in the private sector in West Bengal. Now West Bengal alone produces 4,000 million fish seed out of the total fish seed production of 5639 million in the country.

4.88 To develop coastal brackish water areas for prawn culture, a Centrally sponsored scheme with "Area Development Concept" was introduced during the year. Further, new schemes for collection of inland fisheries statistics and techno-economic survey of inland fisheries were initiated. A Group Insurance Scheme for fishermen as well as a National Welfare Fund for the benefit of fishermen communities were also started during 1984-85.

4.89 In the first year of the Seventh Plan (1985-86), the major thrust will be to further increase exploitation of marine resources of EEZ by encouraging investment in deep sea fishing. For coastal fishing, besides introducing new design of boats, alternative raw material as a substitute for costly timber will be tried. Attempts will be made to expand diversified coastal fishing. Fishing activities will be regulated in highly exploited coastal areas for optimum sustained yield. Maritime Zones of India (Regulation of Foreign Fishing Vessels) Rules 1982 will be enforced more strictly to regulate fishing zones for various types of vessels.

4.90 Landing and berthing facilities for both mechanised boats and deep sea fishing vessels will be provided by accelerating the construction of on-going harbour works and also by taking up some new projects. Small fish landing centres for traditional boats operating on the coastal belt will also be given priority. Attempts will be made to group fishing villages for setting up "Fisheries Industrial Estates" with all basic facilities for fishing operations.

4.91 In addition to Group Insurance of fishermen, attempts will be made to examine the possibilities of providing insurance cover for fishing boats and nets. Techno-economic survey of fishermen will be carried out to ascertain the present status of fishermen communities and initiate welfare programmes. Schemes will be formulated under the National Welfare Fund for providing basic amenities to fishermen communities.

4.92 In the Inland Sector, the number of Fish Farmers' Development Agencies (FFDA) will be increased to promote scientific fish culture in more tanks and ponds. Attempts will also be made to establish "Prawn Farming Estates" to utilise coastal brackish water resources. Culture-cum-capture fisheries will be taken up in minor and medium irrigation reservoirs. Conservation of fish and fisheries will be also be introduced in open waters and rivers to ensure sustained yield from capture fisheries.

4.93 The targets of fish production and selected physical programmes for 1985-86 are given in the Table below :—

TABLE 8
Targets of Fish Production and Selected Physical
Programmes — 1985-86

Item	Achievement 1984-85	Target 1985-86
(i) Fish Production (lakh tonnes)		
(a) Marine	17.50	19.00
(b) Inland	11.00	12.00
Total (i)	28.50	31.00
(ii) Mechanised boats (Nos)	20,000	21,000
(iii) Deep sea fishing vessels (Nos)	75	150
(iv) Fish seed production (Million)	5639	7000
(v) Water area under Scientific Fish Farming (ha.)	101,000	150,000

4.94 An outlay of Rs. 86.24 crores has been provided for fisheries development in the Annual Plan 1985-86, consisting of Rs. 30.90 crores for the Centre and Rs. 55.34 crores for the States and Union Territories.

Forestry and Wild Life

4.95 Forests, on account of complex organic multi-disciplinary interaction with the bio-sphere, play an extremely important role in maintaining the life support system. Thus the National Forest Policy (1952) recommended that the country should aim at coverage of one-third of the total geographical area under forests. Against this, approximately 75 million hectares representing nearly 23 percent of the total geographical area of the country has been classified as forests by the State Forest Departments.

4.96 With a view to preserving the fragile Himalayan Eco-System, a centrally sponsored scheme (100 percent), viz., Soil water and free Conservation in the Himalayas was implemented in 12 States and 2 Union Territories during the year 1984-85. Further, to meet the fuel wood, fodder and small timber requirements

of the rural people in and around the villages, a Centrally Sponsored Scheme (50 percent), viz., Social Forestry including Rural Fuelwood Plantations was continued in 157 fuelwood deficit districts. Besides, Social Forestry Schemes were also undertaken in different States, supplemented to a substantial extent by external assistance. Under Farm Forestry seedlings were distributed to the public for planting on the farm boundary and other

available space. In order to meet the industrial wood requirement, the scheme of Production Forestry which included plantation of quick growing species and economic and commercial plantation was continued.

4.97 The targets and achievements under the various afforestation programmes are given in the Table below :

TABLE 9
Progress under different Plantation Programmes during 1984-85

Programme	Unit	1984-85	
		Target	Achievement
(i) Afforestation (total Seedlings planted)	No. in crores	251	26360
(ii) Soil, Water and Tree conservation in Himalayas (Operation Soil Watch)	Lakh hac	0.42	0.42
(iii) Social Forestry (Area planted)	Lakh hac	4.50	4.67
(iv) Farm Forestry (seedling supplied to public)	No. in crores	120.00	127.50
(v) Production Forestry (Area planted)	Lakh hac	1.15	0.98

The progress of all plantation schemes other than production forestry has been quite satisfactory. The survival percentage of the seedlings was found over 60 and in some good areas particularly in the farm forestry it was as high as 90.

4.98 The task of bringing the optimum area under tree cover has been recognised as a vital need, and all possible efforts would be made in this direction. During the year 1985-86 the principal thrust would be to improve and increase substantially the vegetative cover by massive afforestation through social forestry, farm forestry and other plantation programmes, as also to enhance productivity of the forests and encourage efficient utilisation of the forest produce to meet the basic needs of the people in respect of fuelwood, fodder, minor forest produce and small timber, consistent with the maintenance of ecological equilibrium.

4.100 Social Forestry Programme will be continued with emphasis on qualitative improvement in the programme content. While Uttar Pradesh and Gujarat will have a second phase of the World Bank aided National Social Forestry (Umbrella) Project, Rajasthan and Himachal Pradesh will also be brought under the purview of this Project. This programme would aim at proper choice of species, streamlining of nursery management, appropriate management model for distribution of usufructs and sharing of the harvested forest produce.

4.101 After meeting the bonafide needs of the local people, forest produce would be supplied to the industries. Productivity of the forests would be raised by increasing forest cover through artificial regeneration. Forest Development Corporations would be galvanised. Industries would also be advised to enforce strict economy and discipline in the use of forest raw materials, and existing mechanism of royalty fixation would be reviewed keeping in view the price of forest produce in the market.

5.10 As against the achievement of 253 crores of seedlings planted during 1984-85 under afforestation,

a target of 280.96 crores of seedlings has been fixed for the year 1985-86. If 2000 seedlings are taken equivalent to one hectare of plantation, the physical target would be approximately 1.40 million hectares for the Annual Plan 1985-86.

4.102 While preserving the diverse and rich heritage of forests, forest research would have sharper focus on increasing the productivity of forests, reducing the cost utilisation and improvement of the quality of wood and other forest produce. Appropriate scientific and technological inputs including modern biology and genetic engineering would be utilised for increasing the bio-mass production per unit area/per unit time. Further, apart from the forestry education, for the inservice candidates, the University level courses would also be initiated. The Council of Forest Research and Education would be suitably restructured to achieve these objectives.

4.103 Presently, data base in Forestry is comparatively weak. There is an urgent need for collection of reliable data about location and content of the forests, composition of the growing stock, growth losses etc. Priority would thus be given to complete the survey of forest resources on scientific lines. Having regard to the utility, cost effectiveness and reliability, new techniques like remote sensing would be utilised for conducting the forest survey to improve the data base in Forestry.

4.104 In regard to wide life, the conservation programme as set out in the wildlife National Action Plan would be implemented.

4.105 A National Wasteland Development Board has been established, whose main objective is to bring wastelands under fuelwood and fodder plantations. The Board will formulate, within the overall National Policy perspective, plans and programmes and it would promote, encourage and finance development of wastelands through involvement of non-governmental organisations, voluntary agencies and the public at large including the landless.

CHAPTER 5

RURAL DEVELOPMENT

The experience of the working of the different poverty alleviation programmes during the Sixth Plan has not been uniform. In general, the performance of IRDP was better in relatively developed regions, which were well provided with infrastructure and where the level of awareness among the beneficiaries was high. Even in the less developed areas, the performance was satisfactory wherever special steps were taken for the necessary follow-up measures. Notwithstanding the various deficiencies in the implementation of the poverty alleviation programmes, there has been a distinct improvement in the actual implementation of these programmes over the years during the Sixth Plan. The Approach to the Seventh Plan reiterates the goal of bringing down the percentage of population below the poverty line to less than 10 by 1994-95. Therefore, the special programmes for income generation for the poor through assets endowment and wage employment will be continued at an accelerated pace during the Seventh Five Year Plan.

5.2 To achieve the objectives of cost-effectiveness and minimisation of leakages by imparting the necessary flexibility in the choice of activities, the following strategy is envisaged for the Seventh Plan period: (a) Poverty Alleviation Programmes would be formulated and implemented in a decentralised manner with the participation of people at the grass-roots level through *Panchayati Raj* Institutions. Such an approach is expected to contribute to the selection of projects suited to local conditions, integration of poverty programmes with area development programmes, and ensuring benefits to the poorest of the poor; (b) measures will be taken during the Seventh Plan for strengthening, proper training and orientation of the administrative machinery within the framework of an integrated administrative organisation; (c) in order to protect the beneficiaries from the adverse impact of market forces on supply of inputs or on the sale of produce, the mass media will be geared for developing awareness among the rural poor. Further, voluntary agencies would be increasingly involved in the formulation as well as implementation of poverty alleviation programmes especially for ensuring greater participation of people; (d) a selectivity approach in terms of outlays and programmes is proposed to be

introduced to take account of varying incidence of poverty in different areas; and (e) redistributive land reforms and security of tenure to the informal tenants have to be directly integrated with the anti-poverty programmes.

5.3 The achievements and the targets in respect of the different programme in the Sixth Plan are indicated below:

Integrated Rural Development Programme (IRDP)

5.4 A programme of assisting 15 million poor households to secure additional income through the provision of productive assets was launched in the Sixth Plan. The national target was based on a uniform coverage of around 600 families per block in each year of the Plan. The total number of blocks covered under the programme was 5092. An outlay of Rs. 1500 crores to be shared equally by the Centre and the States was provided for this programme. In addition, institutional credit to the extent of Rs. 3,000 crores was to be mobilised during the Sixth Plan. The assets provided to the selected households were financed through a mix of Government subsidies and institutional credit in the ratio of 1 : 2 on an average. The capital cost of the assets was subsidised to the extent of 25 per cent for small farmers, 33-1/3 per cent for marginal farmers, agricultural labourers and rural artisans and 50 per cent for the Scheduled Tribes. A family could receive upto Rs. 3,000 by way of subsidy. In drought prone areas, the limit of subsidy ceiling was Rs. 4,000 while for tribal beneficiaries it was Rs. 5,000.

5.5 The programme of asset endowment was designed to develop self-employment ventures in a variety of activities, like sericulture, animal husbandry, land based activities, etc., in the primary sector; weaving, handicrafts, etc., in the secondary sector and service and business activities in the tertiary sector. With a view to diversifying the occupational structure, it was stipulated that 33 per cent of the beneficiaries covered should, as far as possible, be in the secondary and tertiary sectors.

5.6 The key indicators of performance in the Sixth Plan are given in the Table below :—

TABLE 5.1
IRDP performance in the Sixth Plan

Items	Unit	1980-85 Envisaged	1980-85 Achieved
1	2	3	4
1. Total Allocation	(Rs. crores)	1500.00	1766.81
2. Central Allocation	(Rs. crores)	750.00	901.08
3. Central Release	(Rs. crores)	—	788.39
4. Total Expenditure	(Rs. crores)	1500.00	1661.17
5. Total Term Credit	(Rs. crores)	3000.00	3101.61
6. Total Investment	(Rs. crores)	4500.00	4762.78
7. Total No. of Beneficiaries covered	(in lakhs)	150.00	165.62
8. No. of Scheduled Caste/Scheduled Tribe beneficiaries covered	(in lakhs)	50.00	64.63
9. Per capita Subsidy	(Rs.)	1000	1003
10. Per Capita Credit	(Rs.)	2000	1873
11. Per capita Investment	(Rs.)	3000	2876
12. Subsidy-credit Ratio		1 : 2	1 : 1.87

5.7 It would be seen that at the national level the target had been achieved in respect of all the quantitative parameters set out in the programme guidelines. However, the performance on a State-wise basis had been uneven.

5.8 The Programme Evaluation Organisation (PEO) of the Planning Commission had taken up a detailed evaluation study of the impact of the Programme. According to its findings, 26 per cent of the sample families assisted were already above the annual income level of Rs. 3500 at the time of selection. Of the remaining 74 per cent, nearly half had been able to cross the income level of Rs. 3500. The PEO study has also highlighted success and weaknesses of the implementation of the IRD Programme. It has emphasised the need for adequate administrative and organisational structure at different levels of administration, streamlining of planning process, particularly in respect of the nature and type of schemes to be devised for the beneficiaries. The report has further referred to the requirement of scientific preparation of perspective and annual action plans as well as devising of more appropriate schemes for the beneficiaries suitable to specific areas, besides the need to provide adequate backward and forward linkages for the effective implementation of the Programme in the Seventh Plan.

5.9 During 1985-86, an outlay of Rs. 221.05 crores has been provided in the Central Sector for this Programme. The break-up of this outlay is as under :—

TABLE 5.2
Annual Plan 1985-86 Outlays — Central Sector
Rs. Crores

Items	Rs. Crores
1. Main Subsidy	212.50
2. Special Livestock Production Programme (SLPP)	1.00
3. Development of Women & Children in Rural Areas (DWCRA)	5.05
4. Training of Rural Youths for Self-Employment (TRYSEM)	2.50
Total	221.05

5.10 Under IRDP an element of selectivity, according to the incidence of poverty will be followed in the distribution of outlays amongst the States during the Seventh Plan. In 1985-86, of the total of Rs. 407.36 crores allotted, Rs. 203.68 crores has been allocated on the basis of a flat rate of Rs. 4 lakhs per block and the balance of Rs. 203.68 crores has been distributed amongst the States on the basis of incidence of poverty. Apart from coverage of a large number of new beneficiaries who are to be provided subsidy at an enhanced rate, as compared to the average level attained in the Sixth Plan, it is also proposed to provide out of this outlay a second dose of assistance to those Sixth Plan beneficiaries who may not have been able to attain income increases to the desired extent due to inadequate investment and other reasons. The step up in subsidy in the Seventh Plan has been necessitated by the rise in the cost of assets.

Training of Rural Youth for Self-Employment (TRYSEM)

5.11 With the objective of providing technical skills to rural youths to enable them to take up self-employment in the broad fields of agriculture and allied activities, industries, services and business activities, the scheme of Training of Rural Youth for Self-Employment was started on 15th August, 1979. The Sixth Plan aimed at training 2 lakh rural youths every year at the rate of 40 youths per block per annum. The target group comprised rural youths between the ages of 18 and 35 from families living below the income level of Rs. 3500 per annum. It was also envisaged that a minimum of 30 per cent of trained youth should belong to Scheduled Caste and Scheduled Tribe communities and a minimum of one-third of the rural youth trained should be women.

5.12 The target of youths to be trained under TRYSEM during the Sixth Plan was 10.05 lakhs. As against this, 9.4 lakh youths were actually trained representing 93.3 per cent of the target. Of the

9.4 lakh youths trained, 4.64 lakh youths' (49.4 per cent) were self-employed. Members of Scheduled Castes and Scheduled Tribes accounted for 31.5 per cent of the total number of persons trained while women accounted for 34.8 per cent of the total.

5.13 The major deficiencies noted in most of the areas were improper selection of trainees due to absence of base line surveys, undue consideration of a few vocations, lack of aptitude on the part of trainees, minimum involvement of District Industries Centres (DICs), poor infrastructural support to enable the trainees to follow the pursuits in which they had been trained, inadequate follow-up to settle the trained youths, lack of coordination amongst the DICs, banks, training institutions, etc., and with other on-going programmes.

5.14 The Sixth Plan scheme for strengthening of training infrastructure for TRYSEM will be re-oriented and replaced by a new scheme to develop Composite Rural Training and Technology Centre (CRTTC) in each district as nodal institutions within a larger system of training and technology dissemination covering the district as a whole. A provision of Rs. 2.50 crores has been made for CRTTC in 1985-86.

Development of Women & Children in Rural Areas (DWCRA)

5.15 It was noticed in the first three years of the Sixth Plan that the actual benefits under the IRDP were not flowing to the women in adequate measure. Therefore, a programme for Development of Women and Children in Rural Areas (DWCRA) was introduced in September, 1982 in 50 blocks on a pilot basis with a view to increasing their income and also to provide support services needed to enable women to take up income generating activities. For this purpose, assistance could be given either to an individual woman or by organising women in homogenous

groups to take up economically viable activities on a group basis together with the provision of support services and child care facilities for them.

5.16 The Sixth Plan outlay for the scheme was Rs. 15.60 crores which was to be shared equally by the Centre and the States. In addition, UNICEF assistance was to be made available to the extent of Rs. 5.40 crores. It was realised that Government effort would require to be supplemented by voluntary agencies also and a scheme of assistance to voluntary agencies under DWCRA was formulated. Besides, need was also felt for the construction of multi-purpose community centres for the purpose of imparting training to workers so as to enable them to take up income generating activities, demonstration of appropriate technology, and provision of living quarters for *gramsevikus* of the area. In all, 3308 groups covering 52,170 women beneficiaries were actually organised under the Programme in the Sixth Plan. Considering the Sixth Plan experience, the programme will be implemented in 1000 Blocks with the objective of organising women in Socio-economic activity groups to provide them with self-employment opportunities and social strength. An outlay of Rs. 5.05 crores has been provided during 1985-86.

National Rural Employment Programme (NREP)

5.17 The NREP was launched on October 2, 1980 and became a regular plan Programme. It was expected to generate additional gainful employment in the rural areas, create durable community assets and improve nutritional status and living standards of the poor.

5.18 An outlay of Rs. 1620 crores was provided under this Programme in the Sixth Plan out of which an amount of Rs. 1280 crores was to be shared equally between the Centre and the States since 1981-82. The key indicators of performance under the Programme are given in the following table :—

TABLE 5.3

Performance of NREP in the Sixth Plan

Year	Resource Availability (Rs. in crores)	Expenditure	Employment Generation (in million mandays)	Manday cost (Rs.)	Wage : Material Ratio
1	2	3	4	5	6
1980-81*	346.32	219.03	413.58	5.25	—
1981-82	460.37	317.63	354.52	9.04	62:38
1982-83	540.15	394.76	351.20	11.24	69:31
1983-84	535.59	392.22	302.76	13.08	62:38
1984-85	590.68	519.14	352.31	14.74	60:40

*For the first six months the Food for Work Programme was in operation.

5.19 A major step was taken in 1983-84 when it was decided to subsidise the cost of the foodgrains to be distributed under this programme. Subsidy to the extent of 37 paise to 40 paise per kg. was provided for wheat and rice. According to the guidelines,

foodgrains were to be provided at the rate of 1 kg. per manday. The total foodgrains made available each year during 1980-85 and their utilisation are indicated in the following Table :—

TABLE 5.4

Utilisation of Foodgrains under NREP

Year	Total food-grains available (MTs)	Total food-grains distributed (MTs)	Percentage utilisation	Per capita foodgrains utilised
1	2	3	4	5
1980-81	15.62	13.44	87.30	—
1981-82	3.43	2.33	60.42	0.64
1982-83	3.57	1.72	46.56	0.45
1983-84	2.88	1.47	60.02	0.49
1984-85	2.72	1.70	58.45	0.48

5.20 The Table below indicates the assets created under the Programme during the Sixth Plan :

TABLE 5.5

Assets created under NREP

Schemes	1980-81	1981-82	1982-83	1983-84	1984-85
1	2	3	4	5	6
Social Forestry (ha.)	54567	103319	100984	110903	93967
Soil Conservation (ha.)	228130	136971	37823	79863	29957
Works benefiting SC/ST (Nos)	—	90423	158971	99325	128693
School and other Buildings (Nos)	16001	21302	75402	28865	78691
Tanks (Nos)	N.R.	13709	15996	11955	11630
Roads (Kms)	166463	73010	104498	53909	34705
Irrigation & Flood Control (ha.)	385144	105640	166408	219077	54566
Others (Nos)	141539	7276	15683	14495	24468

5.21 It would be seen from the foregoing review that the employment generation target under the NREP has been consistently achieved. However, it is not known as to how much of this has been directed towards those who are landless and poorest among the poor. To this extent, the programme has apparently lacked a direct focus on the target group population, towards whom it was meant. It has, however, had a substantial impact in terms of stabilisation of wages in the rural areas, containing prices of foodgrains and the creation of wide variety of community assets which could be expected to help in raising the levels of living of the rural population.

5.22 In the Seventh Plan, with the comfortable food-stock, an additional 1 million tonnes of foodgrains per year is envisaged to be provided for the programme over and above its normal requirements. The quantum of foodgrains distribution per worker per day would also be stepped up. The provision allowing for spending upto 50 percent of the allocations on materials would be continued in the interest of ensuring durability of the assets created. A provision of Rs. 230 crores has been made for NREP during 1985-86.

Rural Landless Employment Guarantee Programme (RLEGP)

5.23 The RLEGP was introduced on 15th August, 1983, with the following objectives :—

- To improve and expand employment opportunities for the rural landless with a view to provide guarantee of employment to at least one member of every landless household upto 100 days in a year; and
- To create durable assets for strengthening the infrastructure so as to meet the growing requirements of rural economy.

An outlay of Rs. 500 crores to be fully financed by the Central Government had been provided under this programme in the Sixth Plan. The implementation of the programme had been entrusted to the States/ U.Ts., who were required to prepare specific projects for approval of a Central Committee. During the two years 1983-84 and 1984-85, the Central Committee

had approved 320 projects with an estimated cost of Rs. 906.59 crores. The target for employment generation in 1984-85 was fixed at 300 million mandays against which 255 million mandays had been generated. The total utilisation of funds under this programme during 1983-84 and 1984-85 had been reported as Rs. 380.15 crores. A review of the programme has shown a tendency to concentrate on asset creation on the basis of departmental plans rather than the local needs or the provision of required quantum of employment to the landless labourers. These defects would be remedied during the Seventh Plan. The Central Sector outlay for 1985-86 is Rs. 400 crores. An additional Rs. 100 crores have been provided subsequently for the construction of houses for SCs and STs.

Drought Prone Area Programme (DPAP)

5.24 The Drought Prone Area Programme has been in operation during the Sixth Plan. The principal objective is to organise permanent works to obviate the need for scarcity relief and to generate adequate employment through labour intensive schemes such as major, medium and minor irrigation works, soil conservation, afforestation and village and district roads. It was in the Fourth Plan that after the mid-term appraisal, this programme was redesignated as Drought Prone Area Programme (DPAP) to reorient it into an integrated area development programme with the objective of developing the land, livestock and human resources of these areas.

5.25 The Drought Prone Area Programme has been in operation upto 1984-85 in 511 blocks of 70 districts in 13 States. This coverage was based on the recommendations of a Task Force (1982) set up to review the programme. However, several States pressed for increase in the coverage and an Inter-Departmental Committee which examined the matter has since recommended an additional coverage of 104 blocks from the beginning of the Seventh Plan.

5.26 During the Sixth Plan, the financing pattern was 50 : 50 sharing between the Centre and the States. The funding norm under the DPAP has been at the rate of Rs. 15 lakhs per block per year which will continue during 1985-86. The original Sixth Plan outlay for DPAP was Rs. 350 crores. The allocation and expenditure for the programme for each year of the Sixth Plan is indicated below :—

TABLE 5.6

Allocation and Expenditure in respect of DPAP (Rs. crores)

	Allocation	Expenditure
1980-81	80.05	73.14
1981-82	84.60	73.19
1982-83	81.35	68.38
1983-84	76.65	55.60
1984-85	81.65	65.27
Sixth Plan Total	404.30	335.58

5.27 The physical achievements during the Sixth Five Year Plan are given below :

TABLE 5.7

Physical Achievements under DPAP

1. Soil and moisture conservation	('00 ha.)	4265.59
2. Creation of irrigation potential (minor irrigation)	"	3276.67
3. Afforestation and pasture	"	3869.86
4. Sheep societies established	Nos.	622
5. Milk Societies established	"	3426
6. Employment generated	'000 man-days	176996

5.28 The strategy adopted in the Sixth Plan for DPAP will continue further aiming to restore the ecological balance and increasing the per capita income from effective development of land and other natural resources, including efficient utilisation of scarce water, conservation of scanty rainfall and arresting its run off. As in the past, it would continue to be implemented as an Integrated Area Development Programme rather than as a programme merely for creating increasing employment opportunities and the resources available under other sectoral programmes like NREP, RLEGP and IRDP, would also be made use of in integrated district plans. The Central Sector outlay for the Annual Plan 1985-86 is of the order of Rs 37 crores.

Land Reforms

5.29 A Centrally sponsored scheme for providing assistance to the assignees of ceiling surplus land who generally belong to the category of rural landless poor has been in operation since 1975-76 with the objective of enabling them to develop the assigned lands for profitable cultivation. Under this scheme, financial assistance of Rs. 2500 per hectare is provided as a grant for various purposes like land development provision of inputs as well as for immediate consumption needs. It had also been envisaged that this scheme would be dovetailed with other programmes of rural development like IRDP, NREP, RLEGP, DDP and DPAP, and that the assignees of the surplus land would be given priority in the enlistment of the beneficiaries under IRDP. Assistance would be so channelised as to help the assignee not only to develop his land on the basis of agricultural activities but also to enable him to build around his land some supplementary economic activities in order to ensure a viable and self-sustaining source of income to him round the year.

5.30 The Central outlay for the scheme was Rs. 30 crores for the Sixth Five Year Plan. The Table below

indicates the annual provisions and releases under this scheme :

TABLE 5.8
Annual provisions and releases under the scheme of
Central Assistance to Assignees of Ceiling Surplus
Land

Year	(Rs. crores)	
	Provision (B.E.)	Expenditure
1980-81	3.00	0.54
1981-82	3.98	1.14
1982-83	3.97	1.30
1983-84	3.97	1.96
1984-85	6.95	5.38
	21.87	10.32

5.31 Under the ceiling laws, the position regarding the ceiling surplus land as on 31-3-1985 has been indicated as under :—

	(Area in lakh acres)
1. Area declared surplus	72.07
2. Area taken possession of	58.13
3. Area distributed	44.62
4. Number of beneficiaries (lakhs)	32.90

5.32 The total approved outlays and the expenditure in respect of the Plan schemes (including the assistance to Assignees of ceiling surplus land) under Land Reforms in the Central and States Sectors are indicated below :

TABLE 5.9

Outlays and Expenditure under Land Reforms in Sixth Plan

1	(Rs. crores)							
	Centre		States		UTs		Total	
	Outlay	Exp.	Outlay	Exp.	Outlay	Exp.	Outlay	Exp.
	2	3	4	5	6	7	8	9
1980-81	3.03	0.55	47.48	44.05	0.38	0.36	50.90	44.96
1981-82	4.00	1.14	52.24	51.79	0.40	0.43	56.64	53.36
1982-83	4.00	1.30	54.05	60.47	0.44	0.52	58.49	62.29
1983-84	4.00	1.96	59.16	64.43	0.53	0.61	63.69	66.60
1984-85	7.00	6.45	63.42	56.42	0.73	0.79	71.15	63.66

5.33 It was observed that the actual utilisation of funds has been very low largely because the States had not been providing the matching share and also due to the fact that the central releases could not be made on account of non-submission of utilisation certificates of allocated resources. It was also found that there was little or no linkage between this programme and the IRDP or the NREP/RLEGP and it functioned in isolation generally through the revenue agencies.

5.34 Within the broad framework that land reform should be considered as an integral part of the total strategy for poverty alleviation, steps are contemplated for streamlining the performance under different schemes and for making the total policy more effective. In the Seventh Five Year Plan, new schemes relating to strengthening of the revenue machinery and updating of land records are proposed. The outlay for land reforms for 1985-86 has been fixed at Rs. 4.70 crores.

Community Development, Panchayats and other programmes of Rural Development

5.35 The progress of financial expenditure on Community Development and Panchayats during the Sixth Plan is as under :—

TABLE 5.10
Progress of Expenditure in the Sixth Plan on
CD and Panchayats

Year	(Rs. in crores)	
	States	UTs
1980-81	82.41	1.74
1981-82	103.68	2.06
1982-83	117.96	2.12
1983-84	78.95	2.89
1984-85*	93.66	3.61

*Anticipated

5.36 During the Seventh Plan, the role of Community Development and Panchayati Raj institutions would be reoriented which would involve them in the planning and implementation of a large number of activities at the village level for overall village development e.g. village paths, drainage, sanitation, etc. States would also be called upon to activate Panchayati Raj institutions, particularly at village and block levels, with a view to ensure their active involvement in the planning and implementation of the special programmes of rural development concerning poverty alleviation and minimum needs. An outlay of Rs. 64.58 crores has been provided in 1985-86.

Other Schemes

5.37 In addition to the above schemes, there are certain other schemes of rural development like the National Institute of Rural Development (NIRD), Training, social action programmes etc. The Table below indicates the details of expenditure during the Sixth Five Year Plan and the outlay of Rs. 7.50 crores for 1985-86.

TABLE 5.11

Expenditure under Other Schemes of Rural Development in the Sixth Plan

Programmes/Schemes	(Rs. crores)	
	1980-85	1985-86
1. National Institute of Rural Development	4.02	1.30
2. Establishment/Strengthening of State/Regional Training Centres for research and training in rural development	0.71	3.50
3. Organisation of Training Courses, Seminars and Workshops	0.28	0.30
4. Promotion of Voluntary Schemes and Social Action Programme	2.20	2.00
5. Creation of Communication Cell	0.03	0.40*
6. INSAT Utilisation	0.01	—
Total	7.25	7.50

*Includes expenditure on INSAT Utilisation.

5.38 The Government of India set up the Council for Advancement of Rural Technology (CART) under the Societies Registration Act in October, 1982 with a view to extending appropriate technology to the rural areas. Since 1984-85, the projects aimed at transferring of technology are being funded by CART. These projects have been sponsored by the State Governments, State Councils of Science and Technology, Voluntary Agencies and institutions of higher learning like the Indian Institutes of Technology (IITs). In all, 18 projects with an aggregate assistance of like the Indian Institutes of Technology (IITs). In recommendations of a panel of scientists. These projects are within the priority areas stressed in the technology policy statement of the Government of India (1983). They cover bio-gas, water dams, fuel consumption, biomass, etc. CART is utilising institutional support from District Rural Development Agencies (DRDAs), District Industries Centres (DICs), Industrial Training Institutes (ITIs), Polytechnics, etc. in the field of rural development. The outlay for CART for 1985-86 has been fixed at 2 crores.

5.39 It is also proposed to introduce some additional schemes in order to provide a new thrust to the poverty alleviation programmes during the Seventh Five Year Plan. These are (1) Computerised District Breeding Programme, (ii) Special Livestock Breeding Programme, (iii) Strengthening of Development Administration; (iv) District Composite Rural Training and Technology Centre; (v) Strengthening of Extension

Training Centres; (vi) Organisation of Beneficiaries; and (vii) Afro-Asian Rural Reconstruction Organisation. The total allocation for these schemes for 1985-86 has been fixed at Rs. 7.75 crores.

Integrated Rural Energy Planning Programme

5.40 About 78% of the total population in the country lives in the rural areas. Nearly 90% of the total energy consumed in the rural areas consists of non-commercial fuels such as firewood, cow dung and agricultural waste. These non-commercial fuels comprise more than 40% of the total energy consumed in the country.

5.41 Planned energy supply involving both commercial and non-commercial source of energy for the rural areas is, therefore, a vital input for the development of these areas. But there has, as yet, been no serious and systematic effort at planning and organising of energy supply to meet the diverse needs for subsistence and productive activities of the rural areas in keeping with their needs and priorities, after taking into account the socio-economic and cultural constraints that exist in different regions and areas of the country. The Sixth Plan had therefore proposed the setting up of Integrated Rural Energy Programmes in rural areas which would provide a mix of energy options for meeting the diverse energy needs of rural areas on an area-wise basis, in the most-cost effective manner.

5.42 Keeping in view the above facts, the Planning Commission initiated a Rural Energy Planning Exercise in the selected States of Maharashtra, Karnataka, Uttar Pradesh and Gujarat in early 1981. The Exercise was later extended to Tamil Nadu and Delhi in 1982-83 and subsequently to Himachal Pradesh and Orissa during 1983-84.

5.43 The purpose of the Exercise was to implement the Sixth Plan recommendation to develop and test the approach for Integrated Rural Energy Programme on a pilot basis, so as to get the feedback not only on the technologies, but also on the institutional, socio-economic and administrative aspects, for planning and implementing such programmes. The experience gained in these selected States is proposed to be utilised for replicating the programme in the whole country during the Seventh Plan.

Review of the Programme in 1984-85

5.44 During 1984-85, the Integrated Rural Energy Planning Programme remained operative as a pilot exercise in 8 selected States covering 20 blocks of which 10 blocks were added during the course of the year. An outlay of Rs. 3.03 crores was provided for this programme but the actual expenditure came to about Rs. 2.24 crores. In the eight States in which the Programme operated, State and district level cells were created and suitably staffed with technical personnel and support staff. The response to the programme of the rural beneficiaries has been quite encouraging in the selected blocks.

5.45 The progress of the pilot programme in the selected States is being assessed and monitored on a

regular basis in the Planning Commission which is providing technical assistance to the States. Other operational difficulties in implementing this programme included identification of nodal departments for planning and implementing and coordination of the work on this programme, identification and posting of suitable personnel for the State and District cells, fixing subsidy levels and preparation of project document.

5.46 A major task in developing this programme is therefore to develop a standard institutional mechanism at the State and District levels which would specify the co-ordination and linkage within the existing systems for planning and implementing the programme. Subsidies over and above the normal subsidies available in the existing schemes were provided in this programme with the purpose of breaking the initial barriers in specific areas for a new technology which has been determined to be operationally and economically viable. The extension and demonstration-cum-subsidy method has worked and as a result it was the experience that subsidy could be reduced and eventually removed for certain new technologies.

5.47 The next lesson learnt from the exercise is that there was lack of a framework and mechanism to prepare integrated area based rural energy plans for the selected blocks. The expertise for preparing such plans was often not available in the existing departments. However, as a result of the combined efforts by the Planning Commission and the State Governments, model project documents have been prepared for several selected blocks. The appointment of staff and its posting in the State and District cells was also a long and time-consuming process as the professional staff was reluctant to work in the rural areas because of lack of facilities vis-a-vis alternatives in the urban areas. Training and orientation was carried out on an experimental basis.

5.48 Another significant lesson learnt relates to the importance of involving the community and the rural people in this programme. Furthermore local institutions such as village primary and secondary schools, colleges, technical institutions, industries and financial institutions, including local banks, have to be closely involved. The monitoring of the programme was also organised and policy guidelines issued regarding the provision of subsidy on a regular and continuing basis.

The Programme in 1985-86

5.49 During 1985-86, emphasis would be given on over-coming operational and institutional bottlenecks to systematize and organise the programme on the basis of the field experience in the selected States in 1984-85. The programme would be taken to all the States and Union Territories during 1985-86.

5.50 There has been a step-up in the approved outlays for Integrated Rural Energy Programme. From 1985-86 this programme would come under Rural Development Programme. The approved outlay has been increased from Rs. 3.03 crores in 1984-85 to Rs. 6.62 crores in 1985-86.

5.51 For the year 1985-86 a target of setting up 40 new rural energy projects in different blocks throughout the country has been fixed in addition to the 20 ongoing projects in selected States which would be intensified. The amount proposed in the Plan would mainly cover the expenditure for the following activities to be undertaken by the State Governments/Union Territories.

Institutional mechanism in the States/UTs

5.52 An energy cell in each State/UT would be established at State and district/block level for coordination, planning and implementation of integrated rural energy projects at the block level. The cell would typically consist of one Project Director, one Economist and support staff. The Planning Commission would train and provide regular technical guidance to the staff.

Preparation of Project Document

5.53 Energy survey in the selected blocks and collection of socio-economic data of the region would be undertaken to formulate the integrated area based rural energy plans. In conducting surveys, the specialised agencies available in the region would be associated.

5.54 Specific area based schemes involving all sources of energy and keeping in view the short term and long term objectives would be prepared which would provide the blue print and targets for project components. These will be linked with rural and other developmental programmes in the area.

Training of staff for Integrated Rural Energy Planning and Implementation

5.55 The Planning Commission would organise training courses for the staff engaged in the programme in the States from time to time to develop expertise in the preparation of Integrated Rural Energy Plans and Projects, including demand projection and assessment of supply options.

Incentives and subsidies for IREP Programme

5.56 Depending upon the local conditions and the response from the rural people, the State Governments would devise schemes for providing incentives and subsidies in order to promote new energy technologies.

Involvement of R & D Institutions, Industries and Banks

5.57 Involvement of the local institutions, including engineering colleges, industries, R & D organisations, socio-economic research groups and voluntary organisations would be an important component of the programme.

5.58 The state-wise approved outlays for the Integrated Rural Energy Planning Programme for 1985-86 are given in Annexure-5.2. This outlay would include provision for setting up of an institutional mechanism at the State/District and Block level for planning and implementing the IREP programme

and preparing project documents, involving local institutions and for hardware and soft-ware activities concerning the IREP projects as per guidelines prepared by the Planning Commission.

Involvement of Voluntary Agencies

5.59 The experience of implementation of poverty alleviation programmes during the Sixth Plan has brought out sharply the need for involving voluntary agencies and people's organisations in the process of planning and implementation. Arrangements will

also have to be made to provide an institutional framework for the involvement of voluntary agencies. The People's Action for Development (India), a registered society hitherto involved largely in channelising foreign donors funds to voluntary agencies for the implementation of special programmes of Rural Development, will be strengthened and provided with the requisite financial support for meeting its administrative expenditure etc. At the State level also, attempts will be made to create similar institutional arrangements.

Summary Outlays for Rural Development (1985-86)

(Rs. crores)

1. Integrated Rural Development Programme and related programmes	221.05
2. National Rural Employment Programme	230.00
3. Rural Landless Employment Guarantee Programme	400.00 (a)
4. Drought Prone Area Programme	37.00
5. Desert Development Programme	8.00
6. Land Reforms	4.70
7. Agriculture Marketing and Rural Godowns	14.00
8. Other Programmes	17.25
Total	932.00

(a) An additional amount of Rs. 100 crores for construction of houses for Scheduled Castes and Scheduled Tribes has been provided, raising the outlay to Rs. 500 crores.

Outlays for the Annual Plan 1985-86 for I.R.E.P.P.

(Rs. in lakhs)

States	
Andhra Pradesh	10.00
Assam	10.00
Bihar	50.00
Gujarat	30.00
Haryana	30.00
Himachal Pradesh	50.00
Jammu & Kashmir	20.00
Karnataka	20.00

Kerala	25.00
Madhya Pradesh	35.00
Maharashtra	50.00
Manipur	8.00
Meghalaya	10.00
Nagaland	4.00
Orissa	35.00
Punjab	17.00
Rajasthan	15.00
Sikkim	10.00
Tamil Nadu	30.00
Tripura	—
Uttar Pradesh	75.00
West Bengal	10.00
States Total	544.00

Union Territories

Andaman & Nicobar Islands	10.00
Arunachal Pradesh	5.00
Chandigarh	—
Dadra & Nagar Haveli	3.00
Delhi	65.00
Goa, Daman & Diu	17.00
Lakshadweep	2.00
Mizoram	2.00
Pondicherry	4.00
UTs. Total	108.00
NEC	10.00
Grand Total	662.00

CHAPTER 6

IRRIGATION, COMMAND AREA DEVELOPMENT AND FLOOD CONTROL

IRRIGATION

Review of progress in 1984-85

The Annual Plan 1984-85 envisaged creation of an additional irrigation potential of 2.41 million ha.

and an additional utilisation of 2.25 million ha, with an outlay of Rs. 2258 crores. The anticipated achievements during 1984-85 are 2.28 million ha. of additional potential and 1.77 million ha. of additional utilisation, as shown in Table 6.1 below :

TABLE 6.1
Annual Plan 1984-85

Sl. No.	Item	Plan Provision	Revised estimate (Rs. crores)	Additional benefits			
				Targets		Achievements	
				Potential	Utilisation (Million hectares)	Potential	Utilisation
1	2	3	4	5	6	7	8
1.	Major & Medium Irrigation	1833.19	1847.41	0.85	0.89	0.83	0.77
2.	Minor Irrigation	424.46	484.51	1.56	1.36	1.45	1.00
	Total	2257.65	2331.92	2.41	2.25	2.28	1.77

6.2. The total irrigation potential created by the end of 1984-85 is estimated at 67.29 million ha. and the utilisation of irrigation potential is placed at 60.47 million ha.

6.3 The position in regard to performance in respect of major and medium irrigation as well as minor irrigation is reviewed in the following sections.

MAJOR AND MEDIUM IRRIGATION

Review for 1984-85

6.4 At the time of finalisation of the Annual Plan it was observed that many schemes of even the First, Second and Third Plans were still continuing and the State Governments were urged to accord top priority to speedy completion of such schemes. It was suggested that any proposed extension of the area under the schemes beyond the original scope may be taken up as a new project and the capital accounts of all the old projects should be closed as far as possible in 1984-85. However, in a number of cases it had not been possible for the States to complete the schemes taken up in the first three Plans, mainly on account of change in the scope of the projects. The shortfall in the utilisation of irrigation potential during 1984-85 as compared to the targets was due to slow progress in respect of command area development works in some projects.

The Programme for 1985-86

6.5 The main objective is to increase agricultural productivity which is, at present, not upto the required level in the irrigated areas. The unfinished irrigation projects, which are in an advanced stage of

completion and are capable of yielding full or partial benefits in the Seventh Plan would be completed by providing adequate funds on a priority basis. New starts would be restricted to medium irrigation projects in drought prone, tribal and backward areas. The following order of priority would be followed for funding of unfinished irrigation projects :—

- (i) Externally aided projects to be funded according to the schedule of agreement signed with external agencies;
- (ii) Completion of on-going medium irrigation projects which will be fully funded;
- (iii) Completion of pre-Fifth Plan and Fifth Plan major irrigation projects as early as possible;
- (iv) Inter-State Multipurpose and Major Irrigation Projects to be adequately funded;
- (v) Acceleration or completion of major irrigation projects taken up in 1978-79 and 1979-80;
- (vi) Completion of the Sixth Plan major Irrigation projects which are in advanced stage of construction;
- (vii) Provision of necessary funds for modernisation of existing irrigation works;
- (viii) Efficient water management and modernisation of existing irrigation system in order

to meet the water requirements of the high yielding crops.

- (ix) Providing adequate outlays, as a part of the irrigation projects cost, for construction of water courses from 40 ha. blocks to 5/6 ha. block for expediting speedy utilisation of potential created by major and medium irrigation projects.

In order to ensure early completion of the long lingering on-going schemes, outlays for such schemes would be earmarked. Similarly, the outlays for inter-state projects and externally aided projects would also be earmarked.

6.6 Emphasis has been placed on reducing the gap between the irrigation potential created and its utilisation by expediting the construction of field channels and introduction of warabandi. The pace of implementation of the CAD Programme was stepped up by providing additional outlays in 1983-84 as well as in 1984-85 under an incentive scheme for covering additional area by field channels.

6.7 In the Sixth Plan, a system of monitoring was in operation for 66 major irrigation projects. Under the arrangement, the officers of Central Water Commission (CWC) periodically visit the projects to look into the deficiencies and bottlenecks in their implementation so that corrective measures are taken. The States have also to set up monitoring cells at the project and State levels for close monitoring of projects at intervals of 3 to 6 months in order to ensure that the targets are achieved according to the time schedule. Monitoring of major Projects will be carried out more vigorously during 1985-86. The CWC will continue taking steps for arranging scarce materials like cement, steel and explosives. The project authorities have to prepare a detailed construction programme at the beginning of the year taking into account the availability of men, material and financial resources against which the progress can be watched every quarter by the monitoring cells at the State and Central levels.

6.8 Increase of irrigation potential is an important point under the 20 Point Programme. It is proposed to create an additional irrigation potential of 0.63 ha. from major and medium irrigation schemes and 1.69 m. ha. from minor irrigation schemes adding upto 2.32 m. ha. The outlays provided for major, medium and minor irrigation schemes for 1985-86 is Rs. 2332 crores against Rs. 2258 crores during the Annual Plan for 1984-85.

6.9 In view of the mounting losses from irrigation projects, it is necessary to review and rationalise the present water rate structure. The rates need to be increased suitably not only to meet the operation and maintenance charges but also to recover a part of the

interest on the capital as recommended by the Eighth Finance Commission.

MINOR IRRIGATION

Review for 1984-85

6.10 As against the approved outlay of Rs. 424 crores for the Minor Irrigation Programme in 1984-85, the anticipated expenditure is Rs. 485 crores. The Institutional investment envisaged for 1984-85 was about Rs. 380 crores. Although there is no shortfall in financial provisions, there is a small shortfall in the physical achievement. This is due to increased cost of schemes, inadequate resources allocation in some States, proliferation of projects and thin spreading of resources, shortage of power for pumping ground water and for surface lift scheme etc.

Programmes for 1985-86

6.11 The main considerations in the formulation of the Minor Irrigation Programme for the year are :

- (i) According priority to on-going surface water schemes to derive the benefits as early as possible.
- (ii) Emphasising the need for allocation of funds for on-going externally aided projects to honour the commitments as per agreements.
- (iii) Stepping up the flow of institutional investment to the maximum extent possible.
- (iv) Giving priority for electric connections to pump sets for irrigation and taking concerted action to ensure timely availability of the required power for the pump sets.
- (v) Providing subsidies to small and marginal farmers and other weaker sections for encouraging private minor irrigation works.
- (vi) Stepping up ground water development in the States and U.Ts., specially in the eastern and north eastern regions.
- (vii) Taking steps to improve the efficiency of pump sets and accessories.
- (viii) Encouraging irrigation through non-conventional renewable sources of energy like hydrams, solar pumps, man and animal operated lifting devices, etc.
- (ix) Encouraging Minor Irrigation Development in tribal, backward and drought prone areas and the areas having predominantly scheduled castes and scheduled tribes farmers.
- (x) Improving the performance of public tube-wells which are now suffering from non-availability of power, lack of field channels and poor maintenance.

6.12 The Table below gives the abstract of outlays and the targets of benefits for 1985-86 :

TABLE 6.2
Annual Plan 1985-86 Outlay & Targets

Sl. No.	Item	Outlays for '85-86 (Rs. crores)	Targets of benefits during 1985-86	
			Potential (m. ha. gross)	Utilisation
1	2	3	4	5
1.	Major and Medium Irrigation	1847.41	0.63	0.62
2.	Minor Irrigation	484.51	1.69	1.30
	Total	2331.92	2.32	1.92

The expected availability of funds from institutional sources for the Minor Irrigation Programme in 1985-86 is Rs. 560 crores.

6.13 The State-wise break-up of outlay of Major and Medium irrigation, Minor Irrigation, Command Area Development and Flood Control Programmes is indicated in Annexure 6.1.

6.14 The State-wise break-up of the benefits from Major, Medium and Minor Irrigation Schemes is indicated in Annexures 6.2 and Annexure 6.3 respectively.

COMMAND AREA DEVELOPMENT

6.15 The command area development programme was initiated in 1974-75 as a Centrally Sponsored Scheme with the objective of stepping up the utilisation of the created irrigation potential and realising optimum agricultural production from irrigated land. The Programme would be accelerated to improve the productivity in the irrigation commands by stepping up utilisation of potential created by making available critical inputs like seed, fertilisers, pesticides, credit etc. At the beginning of the Sixth Plan, 76 projects in the commands of major/medium irrigation projects were under implementation and 29 additional projects were taken up in 1983-84. Three projects in Maharashtra were completed. Thus at the end of the Sixth Plan 102 projects under implementation remained to be completed.

Review of Progress in 1984-85

6.16 The anticipated expenditure during 1984-85 was Rs. 261.44 crores or about the same as the approved outlay. The targets and achievement in respect of the construction of field channels, land levelling and warabandi during 1984-85 are given below

TABLE 6.3
Annual Plan 1984-85

Item	(M. ha.)	
	Target	Anticipated achievement
1. Construction of field channel	1.37	1.20
2. Land levelling	0.13	0.12
3. Warabandi	0.62	0.66

10-500PC/85

6.17 In order to accelerate the utilisation of created potential, the Central Government sanctioned an additional outlay of Rs. 15 crores during 1984-85 under the incentive scheme for constructing more field channels. The anticipated expenditure during 1984-85 under this scheme is Rs. 6.73 crores and the corresponding achievement is 0.14 m. ha.

6.18 The programme would be continued during the year 1985-86 in 102 projects as mentioned earlier. Some new projects may also be taken up during the year. Adequate outlays would be provided for externally aided CAD projects according to the schedule agreed with the external agencies. Reviewing and monitoring arrangements would also need to be strengthened.

6.19 The States have been urged to prepare project report for each project indicating its total cost phasing of the requirement of funds and the target to be achieved etc., and submit the same to the Ministry of Water Resources for approval in order to facilitate timely release of funds by the Centre.

6.20 The outlay provided for this programme during 1985-86 is Rs. 188.14 crores in the State/U.Ts. Sector and Rs. 107.00 crores in the Central Sector. The targets for the area to be covered through the construction of field channels, land levelling and warabandi are 0.86 m. ha., 0.24 m. ha., and 0.98 m. ha. respectively. The State-wise break-up of the outlays, provided in the State Sector is shown in Annexure 6.1. Similar break-up of physical targets for the construction of field channels, land levelling and warabandi is shown in Annexures 6.4, 6.5 and 6.6 respectively.

FLOOD CONTROL

Review of progress during 1984-85

6.21 Against the approved outlay of Rs. 182 crores, the anticipated expenditure for 1984-85 is Rs. 160 crores. The target of additional area to be afforded reasonable degree of protection during 1984-85 was 0.3 m. ha. As against this, the achievement has been reported at about 0.25 m. ha. A special Central assistance of Rs. 5 crores was provided during the year to expedite construction of important and inter-state flood control schemes.

Plan for 1985-86

6.22 The outlay provided for the programme for 1985-86 is Rs. 154 crores, of which Rs. 34 crores is in the Central Sector. The latter includes Rs. 8 crores for Brahmaputra Board for preparation of Master Plan, Rs. 15 crores for Flood Control works in the Brahmaputra Valley, Rs. 6 crores for Rengali

Dam and Rs. 4 crores for anti-sea-erosion works in Kerala.

6.23 The State-wise outlays provided for flood control in 1985-86 are given in Annexure 6.1. It is expected that an additional area of about 0.25 m. ha. would be afforded reasonable degree of protection during the year.

**Outlays on Major and Medium Irrigation, Minor Irrigation, C.A.D. and Flood Control Programmes for the Annual Plan
1985-86.**

(Rs. Crores)

Sl. No.	States/UTs	Major & Medium Irrigation	Minor Irrigation	C.A.D.	Flood Control
1	2	3	4	5	6
1.	Andhra Pradesh	171.79	33.70	10.83	5.00
2.	Assam	21.00	29.50	1.00	6.45
3.	Bihar	200.00	46.00	5.00	24.00
4.	Gujarat	151.36	15.30	3.20	1.70
5.	Haryana	120.81	2.45	22.60	12.00
6.	Himachal Pradesh	1.64	5.65	0.29	0.30
7.	Jammu & Kashmir	13.08	8.50	1.00	4.00
8.	Karnataka	97.38	26.30	9.26	0.65
9.	Kerala	59.50	4.00	0.75	1.25
10.	Madhya Pradesh	217.44	73.39	24.30	1.00
11.	Maharashtra	237.85	49.00	64.29	0.15
12.	Manipur	11.10	1.70	0.50	1.20
13.	Meghalaya	0.10	1.70	—	0.20
14.	Nagaland	—	2.59	—	—
15.	Orissa	90.70	22.00	1.50	3.00
16.	Punjab	49.23	6.22	6.00	8.02
17.	Rajasthan	100.13	7.21	15.00	2.59
18.	Sikkim	0.10	1.35	—	0.15
19.	Tamil Nadu	51.00	9.05	7.20	2.35
20.	Tripura	4.35	3.00	—	1.00
21.	Uttar Pradesh	185.10	96.28	12.00	14.20
22.	West Bengal	39.50	15.00	1.50	20.00
Total States		1823.16	459.89	186.22	109.71
Union Territories					
1.	A & N Islands	—	0.40	—	—
2.	Arunachal Pradesh	0.11	4.30	—	0.38
3.	Chandigarh	—	0.20	—	—
4.	Dadra & Nagar Haveli	1.00	0.25	1.00	0.01
5.	Delhi	0.02	1.22	—	10.00
6.	Goa, Daman & Diu	9.60	1.67	0.92	0.20
7.	Lakshadweep	—	—	—	0.05
8.	Mizoram	0.075	0.75	—	—
9.	Pondicherry	0.40	0.83	—	0.40
Total (UTs)		11.205	9.62	1.92	11.04
N.E.C.		0.158	—	—	—
Central Sector		13.05	15.00	107.00	33.55
Grand Total		1847.41	484.51	295.14	154.50

*Excludes an outlay of Rs. 15.8 lakhs for major & medium irrigation schemes in N.E.C.

Benefits from Major and Medium Irrigation schemes

(Thousand hectares)

Sl. No.	States/UTs	Ultimate irrigation potential	Pre-Plan benefits	Irrigation benefits to the end of 1984-85		(cumulative including preplan)		1985-86 (Targets)	
				(Targets) Potential	Utilisation	anticipated Potential	achievement Utilisation	Potential	Utilisation
1	2	3	4	5	6	7	8	9	10
1.	Andhra Pradesh	5000	1676	3391	2966	3268	3017	3327	3056
2.	Assam	970	—	131	80	129	78	143	106
3.	Bihar	6500	404	2879	2235	2879	2176	2955	2256
4.	Gujarat	3000	33	1324	813	1264	748	1284	778
5.	Haryana	3000	436	1927	1742	1929	1745	1964	1772
6.	Himachal Pradesh	50	—	6	4	6	4	6	4
7.	Jammu & Kashmir	250	43	144	120	138	113	142	118
8.	Karnataka	2500	308	1285	1197	1269	1076	1333	1118
9.	Kerala	1000	158	578	557	564	543	588	573
10.	Madhya Pradesh	6000	513	1799	1306	1803	1305	1882	1370
11.	Maharashtra	4100	255	1772	1077	1700	832	1765	935
12.	Manipur	135	—	43	27	43	26	56	36
13.	Meghalaya	20	—	—	—	—	—	—	—
14.	Nagaland	10	—	—	—	—	—	—	—
15.	Orissa	3600	455	1572	1510	1568	1508	1589	1524
16.	Punjab	3000	1220	2467	2443	2462	2444	2490	2470
17.	Rajasthan	2750	320	1821	1520	1812	1476	1872	1505
18.	Sikkim	20	—	—	—	—	—	—	—
19.	Tamil Nadu	1500	891	1252	1225	1244	1225	1264	1241
20.	Tripura	100	—	—	—	—	—	—	—
21.	Uttar Pradesh	12500	2553	6813	5519	6813	5513	6843	5563
22.	West Bengal	2310	440	1587	1475	1587	1475	1606	1501
23.	Total States	58315	9705	30791	25820	30477	25304	31129	25926
	UTs.	160	—	20.4	15	20	15	22	17
	Grand Total	58475	9705	30811.4	25835	30497	25319	31151	25943

Benefits from Minor Irrigation Schemes

('000 Hectares Gross)

Sl. No.	State	Ultimate Potential	Benefits at the end of						
			1979-80	1984-85 (Target)		1984-85 (Anticipated)		1985-86 (Target)	
				Pot.	Utl.	Pot.	Utl.	Pot.	Utl.
1	2	3	4	5	6	7	8	9	10
1.	Andhra Pradesh	4200	1985	2260.1	2250.6	2340.6	2196.0	2389.6	2226
2.	Assam	1700	288	390.5	387.7	391	349	421	371
3.	Bihar	5900	2335	3282.6	3260.6	3422	3150	3672	3340
4.	Gujarat	1750	1431	1589.6	1573.6	1674	1609	1715.7	1640
5.	Haryana	1550	1257	1414.5	1413.5	1387	1361	1417	1386.5
6.	Himachal Pradesh	285	96.5	118.25	118.25	116.5	105.4	117.82	106.1
7.	Jammu & Kashmir	550	313	336.4	335.40	337	327	342.36	330.2
8.	Karnataka	2100	1015	1122.80	1122.00	1128.04	1105	1142.9	1114.6
9.	Kerala	1100	310	390	387.7	390	365	408.5	379.2
10.	Madhya Pradesh	4200	1550	1970.3	1958.7	1992	1870	2104	1949
11.	Maharashtra	3200	1632	1936.5	1925.4	1997	1832	2052	1870.75
12.	Manipur	105	26.3	38.9	38.9	39.1	34	41.1	35.2
13.	Meghalaya	100	23.7	39.3	38.3	34.5	32	37.3	33.7
14.	Nagaland	80	42	56.4	55.5	50.5	47	53.2	48.61
15.	Orissa	2300	665	900.7	892.9	1060	980	1121	1038
16.	Punjab	3550	2914	3097.3	3095.9	3174	3139	3223.8	3184
17.	Rajasthan	2400	1812	1978.6	1976.4	1987	1937	2025	1963
18.	Sikkim	22	9	13.75	13.75	14.1	10.0	15.1	10.6
19.	Tamil Nadu	2400	1887	2038.2	2037.5	1950.4	1942.7	1967.4	1957.5
20.	Tripura	115	38.4	45.65	45.1	58	50.2	60.6	51.6
21.	Uttar Pradesh	13200	8840	12301.8	12222.8	11990	10977	12795	11620
22.	West Bengal	3800	1430	1679.6	1675.4	1712	1600	1800.3	1661
Total (States)		54607	29899.9	37001.75	36825.50	37245.1	35018.3	38922.68	36316.46
23.	A & N Islands	250	0.05	0.45	0.35	0.45	0.36	0.55	0.40
24.	Arunachal Pradesh		16.70	40.20	35.0	40.20	34.2	44.3	36.65
25.	Chandigarh		0.90	1.21	1.195	1.20	1.18	1.29	1.24
26.	Dadra & Nagar Haveli		0.56	0.61	0.59	0.63	0.60	0.65	0.61
27.	Delhi		38.97	41.22	40.82	41.17	40.72	42.37	41.72
28.	Goa Daman & Diu		12.60	14.30	13.60	14.30	13.69	15.15	14.15
29.	Lakshadweep		—	—	—	—	—	—	—
30.	Mizoram	3.44	7.34	6.94	6.44	5.84	7.94	6.84	
31.	Pondicherry	26.90	28.73	28.95	28.73	28.70	28.83	28.78	
Total (UTs.)		250	100.12	134.06	127.445	133.12	125.19	141.08	130.39
Grand Total		54857	30000.12	37135.81	36952.945	37378.22	35143.49	39063.76	36446.85
or say		55000	30000	37130	37000	37400	35150	39100	36500

Pot—Potential

Utl—Utilisation

Construction of Field Channels—Targets/Achievements

('000 ha.)

Sl. No.	Name of State	Actual Achievements		Ant. Achievement 1984-85	Target 1985-86
		1980-83	1983-84		
1.	Andhra Pradesh	256.82	56.5	50.6	80
2.	Assam	4.82	0.45	3.2	5
3.	Bihar	501.09	190.92	255.00	50
4.	Gujarat	27.15	60.43	45.00	28
5.	Haryana	10.00	9.50	9.50	8
6.	Himachal Pradesh	—	0.11	0.25	0.6
7.	Jammu & Kashmir	4.04	0.35	2.33	6.5
8.	Karnataka	59.42	53.72	50.22	55.67
9.	Kerala	0.12	0.87	1.00	3
10.	Madhya Pradesh	130.90	77.00	115.00	115
11.	Maharashtra	73.7	60.00	60.00	135
12.	Manipur	—	1.00	3.00	4
13.	Orissa	49.07	41.61	54.00	23
14.	Rajasthan	136.2	87.50	65.00	30
15.	TamilNadu	29.67	40.86	36.04	48
16.	Uttar Pradesh	1486.54	583.00	420.00	240
17.	West Bengal	8.18	0.90	27.12	25
Total States :		2777.72	1264.72	1197.26	856.77
U. T.					
Goa, Daman & Diu		—	—	0.30	2
Grand Total		2777.72	1264.72	1197.56	858.77

Land Levelling—Targets/Achievements

('000 ha.)

Sl. No.	Name of State	Actual Achievements		Anticipated Achievement	Target
		1980-83	1983-84	1984-85	1985-86
1.	Andhra Pradesh	85.26	42.00	31.00	37.0
2.	Assam	—	—	—	0.5
3.	Bihar	0.17	—	0.08	2.0
4.	Gujarat	16.48	6.80	6.26	18.0
5.	Haryana	8.47	3.15	3.10	3.5
6.	Himachal Pradesh	—	—	—	0.3
7.	Jammu Kashmir	5.67	2.64	3.00	3.7
8.	Karnataka	40.00	8.30	36.50	53.76
9.	Kerala	—	—	0.16	0.20
10.	Madhya Pradesh	13.69	15.00	6.00	1.0
11.	Maharashtra	70.00	30.00	30.00	107.0
12.	Manipur	—	—	0.15	0.5
13.	Orissa	—	—	—	6.0
14.	Rajasthan	21.4	4.50	4.00	4.00
15.	Tamil Nadu	—	—	—	—
16.	Uttar Pradesh	1.41	0.47	0.40	—
17.	West Bengal	—	—	—	0.50
Total States :		260.55	112.86	120.65	237.96
U. T.					
Goa, Daman & Diu		—	—	—	—
Grand Total		260.55	112.86	120.65	237.96

Warabandi—Targets/Achievements

('000 ha.)

Sl. No.	Name of State/UTs.	Actual Achievements		Anticipated Achievement	Target
		1980-83	1983-84	1984-85	1985-86
1.	Andhra Pradesh	230.68	180.00	189.80	135
2.	Assam	—	—	—	10
3.	Bihar	34.5	15.52	55.00	1.8
4.	Gujarat	70.43	22.57	67.01	28.6
5.	Haryana	42.00	9.21	10.70	21.6
6.	Himachal Pradesh	—	—	—	0.6
7.	Jammu & Kashmir	16.30	—	18.30	10.6
8.	Karnataka	0.59	3.67	81.50	26.69
9.	Kerala	—	—	—	0.50
10.	Madhya Pradesh	5.80	8.20	8.00	10
11.	Maharashtra	139.00	28.00	84.00	120
12.	Manipur	—	—	—	2
13.	Orissa	—	—	—	20
14.	Rajasthan	40.00	35.88	10.00	29.2
15.	Tamil Nadu	—	0.58	3.00	50
16.	Uttar Pradesh	158.40	111.82	128.97	495
17.	West Bengal	—	—	—	5
Total States :		737.70	415.45	656.28	982.79
U. T.					
	Goa, Daman & Diu	—	—	—	0.50
Grand Total		737.70	415.45	656.28	983.29

CHAPTER 7

ENERGY

POWER

Review for 1984-85

The target for electricity generation in utilities in 1984-85 was 154 billion units, against which the actual generation was 156.63 billion units, or 1.7% higher than the target. Categorywise, thermal, hydel and nuclear generation exceeded their targets by

0.3%, 3.4% and 16.5% respectively. The actual generation during 1984-85 was higher than that in the previous year by 12%. Categorywise, thermal, hydel and nuclear generation during 1984-85 was higher than that in 1983-84 by 14.1%, 7.9% and 16.4% respectively.

7.2 The source-wise generation target and achievement are as under :

TABLE 7-1
Source-wise electricity generation

Category	(Million units)			
	1983-84		1984-85	
	Target	Actual	Target	Actual
Utilities				
Hydro	49000	49867	52000	53785
Thermal	91825	86535	98500	98770
Nuclear	3500	3494	3500	4078
Total	144325	139896	154000	156633

The region-wise break up of actual generation in 1984-85 is given in Annexure-7.1.

7.3 The All India thermal plant load factor improved from 47.9% in 1983-84 to 50.1% in 1984-85.

7.4 The target of additional new generating capacity during 1984-85 was 3399 MW comprising 602 MW of hydel, 2562 MW of thermal and 235 MW of nuclear. The achievement was 3080 MW com-

prising 418 MW of hydel and 2662 MW of thermal. The latter included 420 MW from Parli Unit IV and Raichur Unit I, which were scheduled for commissioning during 1985-86 but were commissioned ahead of schedule during 1984-85. The scheme-wise targets and achievements are in Annexure 7.2.

7.5 The projects which slipped during the year together with the reasons are :

Sl No.	Name of Scheme	Installed Capacity (MW)	Reasons
1.	Anandpur Sahib Hydel	134	Refilling of hydel channel delayed
2.	Rengali Hydel unit-I	50	Non-completion of stop log of the pen stock gates which necessitated depletion of the main reservoir through construction sluices.
3.	Patratu Thermal Unit 10	110	Delay in completion of coal and ash handling plant and cooling towers, repair of HP inner casing, slow Turbogenerator piping erection, delay in Control and Instrumentation supply and various project inputs.
4.	Farakka STPS Unit-I	210	Delay in Power House building, Boiler supply and erection, Control and Instrumentation, project inputs.
5.	Kalpakkam Atomic Unit-II	235	Delay in supply of main equipment

7.6 As on 31-3-1985, the total installed capacity was 42491 MW comprising 14314 MW of hydel, 27082 MW of thermal and 1095 MW of nuclear. The share of Central Sector (including nuclear) was 6757.5 MW. In the total generation of 156.6 billion units, the share of the Central Sector was 18%.

7.7 The position regarding transmission works during the year is as under :

TABLE 7-2
Transmission Lines 1984-85

	(CKM)	
	Target	Achievement
400 KV	1574	1500
220 KV	3120	3565

7.8 Though, there was a marked improvement in the implementation of the transmission programme during 1984-85, six lines slipped to 1985-86. The major factors contributing to slippages were shortage of conductors, critical steel sections, transmission towers and erection equipment, right of way problems, court cases, delay in forest clearance and diversion of funds from transmission and distribution to other programmes in some cases.

7.9 Lack of adequate and timely availability of transmission capacity at times posed problems in transferring power to areas facing power shortage. On the other hand, some generating units with potential to generate power had to be shut down for want of adequate demand in the area of their operation. This could have been overcome/minimised only if a more effective transmission system had been developed. Delays in construction of transmission system, problems of forest clearance and inadequate attention to construction and monitoring of transmission lines are some areas needing attention. Lack of agreement on operating frequencies continued to hamper integrated working of power regions.

7.10 Villages totalling 21780 were electrified during 1984-85 as against the target of 23105 villages. The number of pump sets energised was around 3.97 lakhs as against the target of 3.86 lakhs.

7.11 The total expenditure during 1984-85 is estimated around Rs. 4995.75 crores as against the approved outlay of Rs. 5393.25 crores as per details given below :

TABLE 7-3
Approved outlay and Revised Estimates

1.	(Rs. crores)	
	Approved Outlay	Revised Estimates
	2	3
States	3421.90	3089.83
U. Ts.	74.40	74.46
Central Sector	1764.42	1743.01
Total	5260.72	4907.30

In addition to above, the following provisions were available for Power Sector :

Power component of special area programme of North Eastern Council	20.53	19.95
Special Project Agriculture (1/3rd share of REC)	92.00	61.79
Rural Cooperatives	10.00	6.71
Total	122.53	88.45

Annual Plan 1985-86

7.12 The total electricity generation in utilities is estimated at 170 billion units as indicated below :

TABLE 7-4
Generation Target 1985-86

	(Billion units)
Utilities	
Hydro	56000
Thermal	110000
Nuclear	4000
Total	170000

Region-wise details are given in Annexure-7.1

The total generation envisaged for 1985-86 is about 10.4% higher than the target for the preceding year. A plant load factor of 50% is envisaged for 1985-86.

7.13 It is estimated that about 4460 MW of additional generating capacity would be installed during 1985-86, taking the aggregate installed capacity in utilities to about 46950 MW by the end of March, 1986. The additions envisaged during 1985-86 are :

TABLE 7-5
Additional Generating Capacity

	MW
Hydro	1167.50
Thermal	3057.00
Nuclear	235.00
Total	4459.50

The scheme-wise details of additions to installed capacity during 1985-86 are in Annexure-7.3.

7.14 Determined efforts are needed to reduce the time taken for stabilisation of newly commissioned thermal units. A central programme of renovation and modernisation of thermal stations has been introduced with a Plan provision of Rs. 90 crores for 1985-86. When completed in the next 3-4 years, this will result in additional generation of 7 billion units per annum at an economical cost.

7.15 Twenty eight hydel units with a capacity of 1167.5 MW are expected to be commissioned during 1985-86. The thermal capacity includes 10 units of 210 MW each, 4 units of 110 MW each and other small units. Gas based stations of 447 MW capacity are likely to be installed during the year. Kalpakkam Atomic Power Project, unit 2 (235 MWe) is also likely to become critical during 1985-86.

7.16 The Central role in the Power Sector will continue to grow. A capacity of 865 MW, including Nuclear, would be commissioned in the Central Sector during 1985-86.

7.17 The targets for 1985-86 for 400 KV and 220 KV transmission lines are 2428 CKm and 3598 CKm respectively. Major 400 KV works will be executed in Uttar Pradesh, Gujarat, Madhya Pradesh, Maharashtra, Bihar, Orissa, West Bengal and Tamil Nadu as also those associated with super-thermal power stations.

7.18 The programme of Rural Electrification included in the 20 Point Programme continues to be accorded high priority. The target for 1985-86 for energisation of pump sets is 3.96 lakhs and of electrification of villages is 20698. The total allocation for rural electrification for 1985-86 is Rs. 467.52 crores, including about Rs. 281.29 crores funded through the Rural Electrification Corporation. The provision of Rs. 467.52 crores for rural electrification for 1985-86 also includes Rs. 80.68 crores for the works executed under the Minimum Needs Programme.

7.19 The total outlay for the Power Sector for 1985-86 is Rs. 6161.25 crores, as shown below:

TABLE 7-6
Plan outlays 1985-86

Category	(Rs. crores)	
	Tentative	Outlay
States	3511.27	
U. Ts.	93.27	
Central Sector	2395.00	
Total	5999.84	@

@In addition to above Rs. 44.41 crores for North Eastern Council, Rs. 102 crores for Special Projects Agriculture (1/3rd share of REC for this programme), and Rs. 15 crores for Rural Co-operatives are available for the Power Sector.

TABLE 7-7
Demand and Consumption of Coal

Consuming Sector	(Million tonnes)		
	1984-85		1985-86
	Plan Target	Offtake (Provisional)	Plan Target
1.	2	3	4
1. Steel	28.50	23.70 0.70*	30.40
2. Power	62.00 (4.00)	62.21 (2.15)*	72.35 (3.64)
3. Railways	11.00	9.50	9.60
4. Cement	9.00	7.09	8.75
5. Fertilizer	5.50	3.86	5.00
6. Soft coke/LTC	4.00	2.15	3.50
7. Brick & Others	31.50	26.46	25.00 + 5.00**
	(1.50)		(1.46)
8. Export	0.20	0.11	0.20
9. Colliery consumption	4.00	4.15	4.00
10. Total	155.70 (5.50)	139.23 (2.15) + 0.70*	163.80 (5.10)

*Imported coking coal.

**Relates to captive power plants.

(Figures in brackets relate to washery middlings).

The details of the Plan provisions for the Centre, States and UTs are given in Annexure—7.4. The outlay in the Power Sector for 1985-86 will be 23.3 per cent higher than the expenditure in 1984-85. The increasing role of the Centre in the Power Sector is evident from the allocation of Rs. 2395 crores for 1985-86 as against Rs. 1743.01 crores in the preceding year, an increase of 37.4 per cent.

Captive Power Plants

7.20 The anticipated additions to installed capacity in Captive Power Plants during 1984-85 were 308.76 MW taking the total installed capacity to 4190 MW by the end of that year. The additions during 1985-86 may be 580 MW. The generation from non-utilities in 1984-85 and 1985-86 is placed at 10.33 and 10.90 billion units respectively.

COAL AND LIGNITE

Review for 1984-85—Coal

7.21 The demand for coal in 1984-85 was estimated at 155.70 million tonnes (excluding 5.50 million tonnes of washery middlings), which was 20.82 million tonnes (15.4%) more than the offtake of 134.88 million tonnes in 1983-84. The actual offtake in 1984-85 was 139.23 million tonnes (excluding 0.7 million tonnes of imported coking coal) representing an increase of only 4.35 million tonnes (3.2%) over the previous year. The consumer-wise break-up is given in Table 7.7. Except for the power sector, the offtake was lower in all sectors. At the same time, unsatisfied demand was also reported from some quarters and the reasons were inadequate rail movement, qualitative mis-matches, regional imbalances in demand and supply, etc.

7.22 Keeping in view the need for depletion of pit-head stocks, which stood at 23.42 million tonnes on 1-4-84, and some imports of superior quality coking coal for the steel industry, the production target was fixed at 152 million tonnes. The actual production at 147.44 million tonnes fell short of the target by 4.56 million tonnes (3%), although it increased by 9.22 million tonnes (6.7%) over the previous year (138.22 million tonnes). Company-wise break-up is given in Table 7.8.

Table 7.8. The main reasons for lower production were inadequate power supply in the eastern region, absenteeism and law and order problems. Shortfall in production in Eastern Coalfields Ltd. (ECL) and Bharat Coking Coal Co. Ltd. (BCCL) affected the consumers of superior quality non-coking coal and coking coal while Singareni's dismal performance affected a large number of consumers in the South.

TABLE 7.8

Production

(Million tonnes)

Company	1984-85		Variation	1985-86
	Plan Target	Actual		Target
1. Eastern Coalfields Ltd. (ECL)	25.10	23.12	(-)-1.98	25.00
2. Bharat Coking Coal Co. Ltd. (BCCL)	24.50	21.84	(-)-2.66	25.00
3. Central Coalfields Ltd. (CCL)	37.50	39.03	(+)-1.53	38.50
4. Western Coalfields Ltd. (WCL)	43.15	46.05	(+)-2.90	48.00
5. North-Eastern Coalfields Ltd. (NEC)	0.75	0.81	(+)-0.06	1.00
6. Sub-Total—Coal India Ltd.	131.00	130.85	(-)-0.15	137.50
7. Singareni Collieries Co. Ltd. (SCCL)	17.00	12.33	(-)-4.67	16.00
8. TISCO/IISCO/DVC	4.00	4.26	(+)-0.26	5.00
Total	152.00	147.44	(-)-4.56	158.50

7.23 Although rail despatch is the principal mode of coal transport, there was only marginal increase in rail movement in 1984-85 over 1983-84. Against 11641 wagons per day (around 100.6 million tonnes) in 1983-84, 11847 wagons per day (101 million tonnes) were moved in 1984-85. Consequently, coal despatches fell short of the requirements. One of the consequences was an alarming increase in pit-head stocks to 30.4 million tonnes by the end of the year.

7.24 Against the productivity (output per man-shift) targets of 0.85 tonne for CIL and 0.79 tonne for SCCL, the actual achievements were 0.87 tonne and 0.70 tonne respectively.

7.25 The Central Mine Planning & Design Institute Ltd. (CEMPDIL) Planned an exploration target for Coal India of 334900 metres. Against this, around 324000 metres of drilling were achieved.

7.26 During the year one coking coal washery (Nandan 1.2 million tonnes) was commissioned. The number of operating coking coal washeries increased to 19 with a total capacity of 32.86 million tonnes. Work on three more coking coal washeries with a total capacity of 6.23 million tonnes continued. Construction work of Bharatpur non-coking coal washery (3.5 million tonnes), which is linked to the captive power plant at National Aluminium Co. Ltd. (NALCO), also progressed.

7.27 During the year, Government sanctioned 14 mining projects, which included 9 proposals of revised cost estimates and 5 new projects; the total capital cost of these projects with an ultimate capacity of

16.78 million tonnes is Rs. 512.60 crores. In addition, Government sanctioned one advance action mining project and one washery. With the addition of these projects, the total number of projects sanctioned by Government costing Rs. 5 crores and above increased to 165 projects, of which 145 were coal mining projects and 20 non-mining projects (washerries, fire projects, water supply schemes, railway diversion, central workshops, LTC Plant at Dankuni, etc.). Of these, 24 mining projects have been completed including 3 in 1984-85 and one mining project was discontinued. Of the 20 non-mining projects, 3 projects (2 fire projects and 1 washery) were completed in 1984-85.

Lignite

7.28 The production target was 6.5 million tonnes of lignite from Neyveli First Mine to meet the requirements of power and briquetting plants. The performance was better than the target and a production of 7.10 million tonnes was achieved. 0.69 million tonnes of lignite was also produced by Gujarat Mineral Development Corporation (GMDC).

Plan Outlay

7.29 In 1984-85, an outlay of Rs. 1117.00 crores (CIL : Rs. 965.10 crores; SCCL; Rs. 75.50 crores; Neyveli Mines : Rs. 71.90 crores and S&T and others : Rs. 4.50 crores) was provided. The estimated expenditure is Rs. 898.07 crores (CIL : Rs. 785.13 crores; SCCL : Rs. 52.00 crores; Neyveli Mines : Rs. 58.49 crores and S&T & Others : Rs. 2.45 crores). The shortfall in expenditure is mainly due to delays in the implementation of projects. The important factors delaying project implementation

were difficulties in land acquisition, delays in supply/procurement of mining equipment, unreliable power supply, unforeseen geo-mining conditions, unsuitable technologies and inefficient project management.

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Coal

7.30 After detailed discussions with the representatives of the consuming sectors, a demand of 163.80 million tonnes (excluding 5.10 million tonnes of middlings) has been arrived at. The major downstream consuming sectors account for 79.1% of total demand. These are power (44.2%), steel (18.5%), railways (5.9%), cement (5.3%), fertilizer (3.1%) and soft coke/LTC (2.1%). Details are given in Table 7.7.

7.31 Having regard to the huge pit-head stocks and requirement of some import of superior quality coking coal for the steel industry, the production target has been fixed at 158.50 million tonnes. Company-wise break up of the target is given in Table 7.8.

7.32 A target of coal movement at 120 million tonnes by railways is envisaged. This is necessary to reduce the mis-matches in demand and supply, while at the same time keep road movement of coal to the minimum.

7.33 Productivity (OMS) targets for the year are 0.88 tonne for CIL and 0.76 tonne for SCCL.

7.34 A detailed exploration programme for the Seventh Plan related to region-wise, quality-wise and sector-wise demand for the period upto 2000 A.D. has been prepared. As a component of this programme, the target for 1985-86 is to drill 325800 metres mostly through the Central Mine Planning & Design Institute (CEMPDIL) and Mineral Exploration Corporation (MEC). Towards the exploration programme, Rs. 30.70 crores have been provided in 1985-86.

7.35 There have been a number of complaints about the quality of coal supplies to consumers like steel plants, power plants, etc. The measures which have already been initiated to improve quality will be further pursued vigorously. These include (i) better mining methods to avoid admixture of overburden with coal during mining (ii) installation of more coal handling plants (CHPs)—while the overall percentage of coal despatched through CHPs was 63% in 1984-85, it is expected to be raised to 82% in 1985-86; (iii) reconstruction of existing washeries like Dugda I & II, Patherdih and Bhojudih and early completion of the three washeries under construction (Rairappa, Kedla and Mohuda with a total capacity of 6.23 million tonnes); and (iv) work on new washeries viz. Madhuband, Bhalgora and Pootkee in BCCL and Sodepur in ECL. A provision of Rs. 41.59 crores has been made in the Plan for the washery programme.

7.36 There are 120 mining projects (coal India—104 and Singareni—16) costing Rs. 5 crores and above and sanctioned upto 31-3-1985 which have spilled over to the Seventh Plan. Out of them 21 projects (CIL-17; SCCL-4) are likely to be completed in 1985-86. In addition, there are 29 mining projects in hand (Coal India-20, Singareni-9) costing between Rs. 2—5 crores sanctioned at company level, most of which are expected to be completed during the year. For these mining projects, a provision of Rs. 451.49 crores for CIL and Rs. 29.05 crores for SCCL has been made.

7.37 The existing mines are expected to produce 84.14 million tonnes (CIL : 73.64 million tonnes; SCCL 10.5 million tonnes). An allocation of Rs. 172.70 crores for CIL and Rs. 29.06 crores for SCCL has been made in 1985-86 for this purpose.

7.38 78 new mining projects (CIL : 62; SCCL—16) have been identified for inclusion in the 1985-86 Annual Plan. These are linked to downstream units. Provision for new mining projects is Rs. 30.22 crores for CIL and Rs. 15.14 crores for SCCL.

7.39 Work will continue on 17 on-going non-mining projects. Fire projects (Jharia Coal field), water supply schemes in Singrauli and Hazaribagh areas, B & K railway line diversion, Damodar river diversion, LTC at Dankuni, Central Workshops at Singrauli, etc., are some of the important projects. 4 projects are expected to be completed in 1985-86 (2 washeries, 1 water supply scheme and 1 LTC plant at Dankuni).

7.40 With a greater appreciation of the benefits that can accrue from mining electronics in production, productivity and safety, a number of systems have been identified for implementation in 1985-86 which include communication system (induction communication system, intrinsically safe leaky feeder system, radio paging system, etc.), safety system sensors/analysers for tele-monitoring in gassy mines, portable oxygen monitors, etc.) and industrial electronics (automatic personnel counter, automatic truck despatch system, defectograph, monitoring and control systems for washeries/CHP, etc.).

7.41 In the previous years, inadequate and interrupted power supply resulted in losses in production, especially in the eastern region. In 1985-86, all possible alternatives to improve the power supply would be examined and remedial action initiated. Provision has been made in the Plan for early installation of three additional captive power stations, each of 20 MW capacity, at critical load centres of the mining areas.

7.42 Welfare measures for the mine workers constitute an integral part of the Plan in 1985-86. The activities include residential housing, water supply and educational, medical and recreational facilities.

7.43 A high level committee called the Standing Scientific Research Committee has been set up to plan and oversee the implementation of R&D projects in the coal sector. The Committee has already identified

25 projects in the four major areas of : production, productivity and safety; coal beneficiation; coal utilisation; and environment and ecology for implementation in the Seventh Plan. Action on some of these projects will be taken in 1985-86. Work will also continue on 26 on-going projects. In addition, important R&D activities have been conceptualised in the field of coal conservation by underground coal gasification and coal transportation by alurry pipelines.

Lignite

7.44 The first mine at Neyveli is operating at more than 100% capacity level. In order to maintain full production, certain balancing length of conveyors is necessary. This will also enable expansion of the mine boundary to include additional reserves. It is necessary to replace a bucket-wheel excavator and some ancillary equipment in the first mine, which have outlived their economic life. These works will be taken up in 1985-86. Stage-I of the second mine is now expected to be completed in 1985-86. However, production would be regulated to synchronise with the commissioning of the second thermal power station at Neyveli; the first unit of which is expected in March, 1986. The Plan includes second mine expansion project (10.5 million tonnes stage); which is expected to be completed by the end of the Seventh Plan.

7.45 Several agencies like Neyveli Lignite Corporation, Mineral Exploration Corporation, National Geophysical Research Institute, Geological Survey of India, Central Mine Planning & Design Institute etc. assisted the Rajasthan Government in exploration for lignite in the State. The activities will continue in 1985-86 with greater emphasis on delineating mineable reserves by drilling, bulk sampling, testing, etc.

7.46 In 1985-86, a production of 6.72 million tonnes of lignite is expected from Neyveli (Neyveli First Mine : 6.5 million tonnes and Second Mine : 0.22 million tonnes). Besides, a production of 0.70 million tonnes is also expected from the Gujarat Mineral Development Corporation.

Outlay

7.47 An outlay of Rs. 997.00 crores has been provided for the development of coal and lignite sectors in 1985-86, the break-up of which is given in Annexure 7.5.

7.48 Out of a total outlay of Rs. 851.50 crores for Coal India Ltd., Rs. 654.41 crores (76.9%) is for mining projects. For the other schemes, Rs. 197.09 crores has been provided: of this Rs. 41.59 crores is for washeries while Rs. 30.70 crores is for exploration.

7.49 The provision for Singareni Collieries Co. Ltd. in the Central Plan is Rs. 72.0 crores. In addition, the Government of Andhra Pradesh will contribute Rs. 7.00 crores towards the development programme of the company. Out of the total amount of Rs. 79 crores, Rs. 73.25 crores (93%) has been allocated for mining projects.

7.50 The main components of Neyveli Lignite Corporation (Mines) outlay of Rs. 68.50 crores are :

- (a) Second mine and its expansion (Rs. 46 crores);
- (b) Balancing equipment and replacement for first mine (Rs. 17.51 crores); and
- (c) Rs. 2.22 crores for Rajasthan Lignite Exploration Project.

PETROLEUM

7.51 There was a marginal shortfall in the production of crude oil during 1984-85 as shown in Table 7.9 below :—

TABLE 7.9
Crude Production in 1984-85

	(in million tonnes)		
	Target	Achievement	% Achievement
Oil & Natural Gas			
Commission (ONGC)			
Onland	6.30	6.12	97.1
Offshore	20.30	20.14	99.2
Sub-Total	26.60	26.26	98.7
Oil India Ltd. (OIL)			
Onland	3.03	2.73	90.1
Total	29.63	28.99	97.8

7.52 The shortfall in on-land areas in the eastern region was due to lesser number of oil producing wells than targetted and production problems especially in the ageing fields of OIL. Lower production in ONGC off-shore areas was on account of delay in the start of oil production from the Heera field due to non-timely receipt of platforms.

7.53 There was some shortfall in the survey activities during 1984-85 compared to the targets as shown in Table 7.10 below :

TABLE 7.10
Seismic Surveys in 1984-85

	(in line kilometres)		
	Target	Achievement	% Achievement
ONGC			
Onland	59	43	73
Offshore	25,100	23,444	93.4
OIL			
Onland	5,100	2,443	47.9

7.54 The shortfall in the case of OIL was due to delay in the finalisation of the contract for seismic surveys in Rajasthan.

7.55 There were significant slippages in drilling activities during 1984-85 compared to the targets as shown in Table 7.11.

TABLE 7.11
Drilling in 1984-85
(in metres)

	Target	Achievement	%Achievement
ONGC			
Onland exploratory	223,700	157,240	70.3
Offshore exploratory	87,000	52,010	59.8
Onland development	165,800	123,030	74.2
Offshore development	159,600	108,930	68.3
OIL			
Onland exploratory	30,500	28,550	93.6
Offshore exploratory	13,500	10,250	75.9
Onland development	76,000	57,064	75.1

7.56 The slippages were primarily due to delays in the acquisition of onland rigs and in obtaining offshore rigs by ONGC on charter hire. There was also a reduction in drilling metreage due to extensive production testing, particularly in the eastern region, problems of land acquisition, drilling complications as well as adverse weather conditions.

7.57 As a result of the exploratory drilling in 1984-85, new oil and gas finds were made in 7 onland and 2 offshore structures.

7.58 The target of LPG production in 1984-85 was exceeded with ONGC more than making up for the shortfall in the production by OIL as shown in Table 7.12 below :

TABLE 7.12
LPG production by gas fractionation in 1984-85
(tonnes)

	Target	Achievement	%Achievement
ONGC	171,000	241,800	141.4
OIL	40,000	34,080	85.2
Total	211,000	2,75,880	130.7

7.59 The shortfall in LPG production by OIL was due to continuing operational problems at its LPG plant at Duliajan and occasional difficulties in the disposal of LPG.

7.60 The target of gas despatch for 1984-85 was achieved with excess production in off-shore areas balancing the shortfall in on-land areas as shown in Table 7.13.

TABLE 7.13
Natural Gas despatches in 1984-85
(million cubic metres)

	Target	Achievement	%Achievement
ONGC			
Onland	846	741	87.8%
Offshore	1,819	2,049	112.6%
OIL			
	732	611	83.5%
Total	3397	3401	100.1%

7.61 The shortfall in onland areas was mainly on account of lower off-take by down stream users.

7.62 A separate organisation called the Gas Authority of India Limited (GAIL) was formed in 1984 to take over gas processing, treatment and transportation. GAIL has taken over the implementation of the 1700 kms. long Hazira-Bareilly-Jagdishpur (HBI) pipeline.

Refining and Marketing

Demand

7.63 The consumption of petroleum products during 1984-85 was 38.63 million tonnes as against 35.84 million tonnes during 1983-84, representing an increase of 7.8% over 1983-84 as compared to 3.4% only in 1983-84 over 1982-83. The growth in the consumption of light and middle distillates was as high as 12.2% and 8.7% respectively compared to only 3.3% and 5.0% respectively in 1983-84.

Refining

7.64 The actual crude throughput during the year was 35.56 million tonnes as against the target of 36.81 million tonnes. The lower achievement is mainly on account of the shut-down of the Cochin Refinery for about seven months following a fire and some slippages in the commissioning of refinery expansion projects of Madras Refineries Ltd. (MRL), Cochin Refineries Ltd. (CRL), Hindustan Petroleum Corporation Ltd. (HPCL), Visakh and Bharat Petroleum Corporation Ltd. (BPCL) Bombay.

7.65 The installed refining capacity increased from 37.80 million tonnes in 1983-84 to 45.55 million tonnes in 1984-85 with the commissioning of expansion projects at BPCL, Bombay (0.75 million tonnes), HPCL, Visakh (3.0 million tonnes), CRL (1.2 million tonnes) and MRL (2.8 million tonnes). The matching secondary processing facilities at Cochin and Visakh refineries were expected to be commissioned in the early part of 1985-86. Work was initiated on captive power plants at HPCL, Bombay BPCL, Bombay and MRL refineries during the year.

Marketing

7.66 With the increased availability of LPG from Mathura and Koyali refineries and Uran terminal and augmentation of marketing facilities under Phase I and II, the consumption of LPG increased from 746 thousand tonnes in 1983-84 to 950 thousand tonnes in 1984-85. The growth in the consumption of LPG in 1984-85 was 27.2% over 1983-84 as compared to 24.1% in 1983-84 over 1982-83.

7.67 The important projects under implementation during the year were : construction of Bombay-Poona pipeline, LPG marketing facilities—Phase III and construction of crude oil and product tankages at certain locations.

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Exploration and Production

7.68 The emphasis during 1985-86 would be on further intensification of exploration activities for hydrocarbons as well as acceleration in the development of domestic resources of hydrocarbons. ONGC has planned deployment of 21 geological and gravi-magnetic survey parties in different areas. Seismic surveys in onland basins would be intensified by deploying 74 parties. ONGC has planned 25,000 line kms. of seismic surveys in western and eastern offshore areas. OIL would carry out 5700 line kms. of seismic surveys in onland areas and 2500 line kms. of seismic surveys in Mahanadi and NE coast offshore areas, besides some surveys in Andamans.

7.69 As regards exploratory drilling, ONGC has planned 2,55,450 metres in onland and 95,500 metres in offshore areas. In onland areas, the major step up in exploratory drilling would be in Cambay, Upper Assam, Krishna-Godavari and Himalayan Foothills and Ganga Valley basins. In case of offshore exploration, the tempo in different basins would be more or less at the same level as in 1984-85, except that drilling would be taken up also in Kerala-Konkan and Bengal basins. OIL has planned 43,700 metres of exploratory drilling in offshore areas. Besides carrying out exploratory drilling in Assam and Arunachal Pradesh areas, it would also start exploratory drilling in Orissa (Mahanadi onland) and Rajasthan areas. As regards offshore areas, OIL would continue further exploratory work in Mahanadi and NE Coast, besides starting exploratory drilling in Andamans.

7.70 Summarising a total of 4,09,650 metres of exploratory drilling has been planned during 1985-86 in onland and offshore areas, comprising 3,50,950 metres by ONGC and 58,700 metres by OIL.

7.71 A large step up has been planned by ONGC in onland development drilling. The major increase would be in development drilling in Cambay basin where activities would be accelerated with the assistance of the World Bank. Besides increase in development drilling in Upper Assam, some development drilling would also be done in Tripura area to start commercial production of gas. A total of 2,70,530 metres of development drilling has been planned by ONGC in onland areas during 1985-86 against an achievement of 1,23,030 metres during 1984-85. As regards offshore areas, the development activities of ONGC would be more or less at the same level as during 1984-85. A target of 1,00,400 metres for development drilling has been fixed for 1985-86 against an achievement of 1,08,930 metres in the preceding year. OIL has also planned a big step up in development drilling in Assam and Arunachal Pradesh areas. A target of 99,000 metres has been fixed for 1985-86 against an achievement of 57,064 metres in 1984-85.

7.72 In short, a total of 4,69,930 metres of development drilling would be carried out by ONGC and OIL in onland and offshore areas comprising 3,70,930 metres by ONGC and 99,000 metres by OIL.

7.73 The total crude oil production by ONGC and OIL is targetted at 30.14 million tonnes as shown below :

TABLE 7-14
Crude Oil Production Target
(in million tonnes)

I. ONGC	
(a) Onland	
(i) Cambay basin	4.00
(ii) Upper Assam & Nagaland	2.50
Sub-Total (a)	6.50
(b) Offshore	
	20.61
Total ONGC (a+ b)	27.11
II. OIL	3.03
III. Total (I+ II)	30.14

A comparison of the targets for 1985-86 with the actuals of 1984-85 is given in Annexure 7.6.

7.74 The total gas despatch by ONGC and OIL in 1985-86 is targetted at 4075 million cubic metres. The details are given below :

TABLE 7-15
Gas despatch targets
(in million cubic metres)

I. ONGEC	
(a) Onland	
(i) Cambay basin	720
(ii) Upper Assam and Assam Arakan basin	125
Sub-Total (a)	845
(b) Offshore	
	2500
Total ONGC (a+ b)	3345
II. OIL	730
III. Total (I+ II)	4075

7.75 The total production of LPG by gas fractionation by ONGC and OIL is targetted at 3,30,000 tonnes as against the achievement of 275,880 tonnes in 1984-85. The increase in LPG production would be on account of commissioning of LPG (Phase II) plant at Uran by ONGC during 1985-86. The details of LPG production are given in table 7.16.

TABLE 7-16
LPG production targets 1985-86

I. ONGC	275,000	tonnes
II. OIL	55,000	tonnes
Total I+ II	330,000	tonnes

7.76 The additional gas dehydration and compression facilities being established in Bombay High field at SH and NQ process complexes would be commissioned during 1985-86 which will substantially minimise the flaring of the associated gas at Bombay High. A gas trunk pipeline from South Bassein to Hazira would also be completed and commissioned. The work on the following important projects would progress further (a) gas sweetening condensate treatment and sulphur recovery plant at Hazira (b) LPG Plant at Hazira (c) Jorajan oilfield development (d) Bombay basin development. GAIL would concentrate on laying of a cross country gas trunk pipeline viz. H-B-J pipeline, the construction of which is likely to commence from early 1986.

7.77 An outlay of Rs. 2630 crores has been provided for the various programmes of exploration, production and transportation of oil and gas.

Refining and Marketing

Demand

7.78 The demand of petroleum products in 1985-86 is expected to be 41.54 million tonnes. This indicates a growth of 7.6% over the 1984-85 level. The light and middle distillates consumption is expected to grow by 10.0% and 8.3% respectively during 1985-86.

Refining

7.79 The crude throughput target for the year has been fixed at 42.14 million tonnes. The refinery-wise crude throughput is given in Annexure 7.7.

7.80 The refining capacity will increase from 45.55 million tonnes in 1984-85 to 47.90 million tonnes in 1985-86 with the commissioning of swing refinery at HPCL, Bombay (2.0 million tonnes) and expansion of Bongaigaon Refineries & Petrochemicals Ltd. (BRPL) (0.35 million tonnes).

Marketing

7.81 The LPG consumption is expected to increase from 950 thousand tonnes in 1984-85 to 1250 thousand tonnes in 1985-86. This will amount to a growth of 31.6% consumption in LPG during 1985-86 over 1984-85. The marketing projects slated for completion during the year are : Bombay-Poona product pipeline and Mandatory Crude Tanks (Phase I and II). The work will continue on LPG marketing facilities-Phase III and Product Storage tankages (Phase I and Phase IIA).

7.82 The organisation-wise outlay is given in Annexure 7.8 and scheme-wise outlay is in Annexure 7.9.

NEW AND RENEWABLE SOURCES OF ENERGY

Review for 1984-85

7.83 During 1984-85, a major programme for promotion and utilisation of various renewable energy sources, including biogas, solar energy and wind energy, was launched. A brief review of the activities in 1984-85 is given below :—

12—500PC/85

Biogas

7.84 A target of 1.50 lakhs biogas plants was set for 1984-85, under the National Projects for Biogas Development, (NPBD). This target has been exceeded and 180430 plants have been set up. An expenditure of Rs. 47.52 crores has been incurred on this programme. In addition 101 community and institutional biogas plants were commissioned till March, 1985, against the total sanction of 267 plants. A major feature of the biogas programme in 1984-85 is that these plants have started catching up in hill States, including Himachal Pradesh and the north-eastern States. Quality control, post installation services, training programmes and independent surveys in respect of biogas plants were also organised. As a result of R & D efforts, two new models of biogas plants—ferrocement and Ganesh model—are now ready for promotion under the NPBD programme. These new models will result in considerable saving of cement and steel.

Solar Thermal Energy

7.85 The main feature of the activities in 1984-85 was the introduction of a national level extension programme on a variety of solar thermal systems for domestic, agricultural and industrial applications, including solar water heating systems, solar timber kilns, solar crop driers, air heaters, solar distillation systems, solar cookers including community type cookers etc. A total expenditure of Rs. 6.30 crores was incurred under this programme against the budgeted outlay of Rs. 5.30 crores. Of this amount Rs. 0.16 crores was provided in subsidy for distributing some 30000 solar cookers. 500 domestic solar water heating systems and 607 solar water heating industrial systems were set up. The total expenditure for demonstration, extension programme as well as R & D was Rs. 5.96 crores. Research and Development activities on solar thermal energy focussed on development of heating storage and power generating systems. A Solar Thermal Energy Centre has been set up at Harvana to bridge the gap between R & D and commercialisation through proto-type development. Testing facilities for materials and solar component systems have also been set up at this centre.

Solar Photovoltaic Programme

7.86 The expenditure under this programme during 1984-85 was of Rs. 3.90 crores against the original outlay of Rs. 2.90 crores. Of this expenditure of Rs. 2 crores were spent in the National Solar Photovoltaics Energy Demonstration programme.

7.87 The NASPED Programme, which is under implementation since October, 1980, has now a production capacity of 600 KW. per year, which will be increased to 1 MW by 1985. The production of solar cells and modules in the NASPED programme were however, much below the target partly because of the non-availability of silicon wafers in the world market and the shortage of other inputs, and raw materials. Steps are being taken to improve the procurement of the inputs and to bring about major improvements in the production set up. 72 water pumping systems, 50 community TV/lighting systems and

416 pole mounted street lights have been supplied so far. An expenditure of Rs. 0.85 crores has been incurred on these programmes. R & D programmes for Solar Photovoltaics were being carried out by different institutions, including development of amorphous silicon solar cells, thin film devices based on cadmium, copper and other materials. Tests carried out on indigenous produces of silicon have shown encouraging results comparable to those obtained with imported silicon. An expenditure of Rs. 1.05 crores was incurred under the R & D programme in 1984-85.

Improved Chulahs

7.88 The Department has launched a National Project on demonstration of Improved Chulahs in December, 1983. This programme has proved to be extremely successful among the rural beneficiaries and more than 8.12 lakhs chulahs have been installed so far of which 7.80 lakhs were installed in 1984-85. 29 models of improved wood stoves having efficiency of upto 15% and developed by various research institutions and social organisations have been identified for propagation. The project is being entirely funded with 100% subsidy for the cost of hardware etc. for fixed model plants and 70 to 75 percent for portable models. An expenditure of Rs. 4.02 crores were incurred under this programme against the initial provision of Rs. 4.00 crores. Training facilities have been set up at Bangalore and Chandigarh. About 50000 persons have been trained under this programme and through them the programme is expected to be enlarged rapidly in the subsequent years.

Wind Energy

7.89 The main activities under this programme were strengthening of wind data base, research and development, demonstration and field testing. A total expenditure of Rs. 1.75 crores was incurred under this programme against the initial provision of Rs. 1.15 crores. Of this an amount of Rs. 1.55 crores was spent on demonstration and field testing. 500 wind pumps have been installed so far for irrigation and drinking water. Small wind battery charges of capacities upto 3 KW have been demonstrated. Steps were initiated for setting up 4 pilot projects upto a capacity 2 MW in known windy locations in Gujarat, Orissa, Tamil Nadu etc. R & D projects included improvement and development of wind pump systems, particularly those suitable for low wind and deep well pumping, adaptation and indigenous development of small battery charges, and designing and development of wind turbine generators.

Biomass and Draught Animal Power Programme

7.90 Under this programme, biomass research centres have been setup at Lucknow, Madurai and Garhwal to carry out agronomic trails of fast growing fuelwood species under different conditions as well as on the conversion and utilisation of biomass growing on waste land. Different designs of equipment including gasifiers have been tested in various institutions for the wood gasification programmes. Energy Plantations have also been set up in selected locations. Under the Draught Animal Power programme, research projects for improved implements and carts are being carried

out in the Indian Institute of Management and other institutions. An expenditure of Rs. 48.76 lakhs was incurred on Biomass and Rs. 10 lakhs on DAP during 1984-85.

Energy from Urban Waste

7.91 Under this programme, a contract for a project for incineration of 300 MT of Delhi city garbage per day was entered into with a Danish Company. The project is likely to be commissioned by March, 1987. Investigations are also being carried out to ascertain the potential and feasibility for incineration of urban waste at four locations in U.P. and one each in M.P. and Delhi. An expenditure of Rs. 14.51 crores was incurred for the Danish Project in Delhi.

Magneto-Hydro Dynamics Project

7.92 Under this project which was approved in 1976 at an estimated cost of Rs. 11.78 crores, an experimental plant at Trichy with a capacity of 5 MW for conducting experiments to obtain scientific data and to develop capabilities for large size plants was expected to be completed by the middle of 1985. Other activities include trials on instrumentation at BARC and design and development of various equipment at BHEL. Expenditure on this programme was Rs. 6 crores during 1984-85 against the initial provision of Rs. 2.20 crores.

Other Renewable Sources of Energy

7.93 R & D projects on hydrogen and chemical sources of energy, energy storage, ocean energy and geothermal energy were conducted. The Alternate Hydro Energy Centre set up at Roorkee has intensified and diversified its activities and taken up three experimental hybrid projects. Geothermal energy and ocean energy experimentation were also conducted. A number of activities relating to exhibitions, documentary films, printing, publications etc. as well as for organising seminars and meetings with experts from different institutions and representatives of voluntary organisations were undertaken. The total expenditure on this programme was Rs. 1.61 crores.

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7.94 As will be seen from the review of the activity during the year 1984-85, the thrust of the programme in 1985-86 would be on R & D Demonstration along with extension of technologies which have become mature. R & D activity would be mostly directed towards developing new designs and reducing costs in mature technologies as well as on undertaking new work or continuing existing work in emerging areas.

Solar Thermal Energy

7.95 Under the demonstration programme it is proposed to install one solar power generating system, 100 solar space heating systems, 6 solar cooling systems and 1 solar pond under the R & D and field trial programmes. It is also proposed to start work on another 2 Megawatt size solar power generating system and to complete the two small systems at

present under installation. Two steam generating systems running on solar energy are also proposed.

7.96 Under the subsidy programme, it is proposed to complete 570 solar water heating systems (both domestic and non-domestic), 20 solar timber kilns, 8 solar air heaters/crop driers and 25 solar desalination systems which were under installation at the end of the previous year.

7.97 The programme for subsidised sale of solar cookers is proposed to be continued and extended to community solar cookers.

7.98 The Solar Thermal Energy Centre (new renamed Solar Energy Centre) is proposed to be provided permanent facilities including a building structure and necessary equipment.

The financial provisions for the Solar Thermal Energy Programme are as follows :

	(Rs. in lakhs)
1. R & D, demonstration, field trials and training	218.00
2. Extension	330.00
3. Solar Energy Centre	76.50
4. Subsidy of Solar Cookers	25.00
Total	650.00

National Project on Biogas Development :

7.99 An outlay of Rs. 46.25 crores has been provided for this programme. 1.80 lakhs of family size biogas plants were constructed in the year 1984-85. However, on account of resource constraint, it is proposed to set up 1.50 lakh plants in the year 1985-86. Out of these, as many as possible will be new design and low cost plants. As part of the Plan activity for this year, it is also proposed to carry out an in-depth study on functioning of Plants and the subsidy pattern. The main emphasis in R & D will be on developing low cost designs and diversification of feed stock. An allocation of Rs. 1.50 crores has been made for this scheme.

Community/Institutional Biogas Plants

7.100 An outlay of Rs. 3.02 crores has been provided for this programme. It is proposed to set up 70 Community/Institutional biogas plants during the current year. In addition, some plants based on human waste are also proposed. Training programmes in the operation and maintenance of community/institutional biogas plants are an additional component in this year's schemes.

Solar Photovoltaic Programme

7.101 The budgetary allocation for these programmes is as follows :

	(Rs. in crores)
National solar photovoltaic energy demonstration	1.75
Other programmes including R & D	3.75
Subsidy programmes	0.50
Total	6.00

7.102 The National Solar Photovoltaic on Energy Demonstration (NASPED) Programme will terminate on September 30th, 1985. However, since the expansion scheme of Central Electronics Ltd. (CEL), on Solar Photovoltaics has been approved separately, a total production at CEL of 910 KW is projected for 1985-86.

7.103 It is proposed to set up the R & D and Demonstration Programmes in this field. R & D would concentrate on amorphous silicon cells, thin film solar cells and PV systems. A pilot plant for the production of amorphous silicon cells is proposed to be set up as a part of the R & D activity. A testing facility for photovoltaic systems and cells is also proposed to be set up.

7.104 On the demonstration side, it is proposed to provide street lights through Solar Photovoltaics to 300 villages. It is also proposed to set up 50 photovoltaic pumping stations, install 200 SPV powered TV sets and 50 other systems for different applications like community lightning, battery charging and village power stations.

7.105 Under the scheme for providing Photovoltaic systems to individual farmers on subsidised basis, a target of 300 such systems is proposed, in addition to a small number of domestic lighting units also.

National Project on Demonstration of Improved Chulahs

7.106 The allocation for this programme for 1985-86 is Rs. 5 crores. It is proposed to install 6 lakhs improved chulahs, conduct 3000 training courses (for—60,000 trained persons) and to make 6,000 villages smokeless during the current year. Additional technical back-up support units at selected places are also proposed to be created. These units conduct R & D and testing activities and also train master craftsmen, who in turn train other master craftsmen in the construction of chulahs.

Wind Energy

7.107 It is proposed to continue the existing R & D programmes and expand the demonstration programme which would include setting up 4 small wind farms of the capacity of 0.5 MW each. Under the subsidised windmills programme, it is proposed to set up 800 water pumping windmills. The financial outlays are as follows :

	(Rs. crores)
R & D	Rs. 1.00
Demonstration (including 4 wind farms)	Rs. 3.50
Subsidy on water pumping windmills	Rs. 0.50
Total	Rs. 5.00

Biomass & Draught Animal Power

7.108 The Biomass production programme would consist of energy plantations of different sizes in different agro-climatic conditions. A large number of promising species will be tried out. It is proposed to spend a sum of Rs. 2 crores on this programme in 1985-86.

7.109 Certain novel and innovative as well as highly cost effective projects are proposed to be taken up in the area of biomass conversion. These relate to biomass based power generation in Tamil Nadu (6 MW), rice husk based power generation in Punjab (5 MW surplus electricity production) and rice straw based power generation in Punjab (10 MW). R & D and Demonstration work on different biomass including distillery effluent based energy systems and gasifiers would be expanded. A pilot plant for the production of ethanol and co-products from ligno-cellulosic residues is proposed to be set up. A provision of Rs. 4 crores has been made for these programmes. R & D activities for the efficient utilisation of draught animal power will be stepped up and expanded. A Centre for Draught Animal Power is proposed to be set up in this year. A provision of Rs. 75 lakhs has been made for this scheme. The total outlay for Biomass and Draught Animal Power is Rs. 6.75 crores.

Energy from Urban Waste Programme

7.110 Two energy recovery and sewage treatment plants are proposed to be taken up through the funds available with the Central Ganga Authority. Among the cities which are proposed to be given priority in the scheme are Varanasi, Allahabad and Kanpur. Progress on the 3.75 MW refuse incineration plant Delhi will be continued. An allocation of Rs. 2 crores has been provided for this programme.

Magneto-Hydro Dynamics

7.111 The work on the experimental coal based MHD power plant will be continued. The pilot plant was commissioned in March, 1985, signalling the completion of the first phase. The second phase (which will last two years) has been taken up. An outlay of Rs. 3 crores has been provided for this purpose.

Other Renewable and Non-conventional Energy Sources

7.112 The R & D work on small hydro power plants would be continued. The Alternate Hydro Energy Centre already functioning at Roorkee is proposed to be expanded. A few micro hydro plants will be set up as a part of R & D and demonstration activities. Work on chemical energy, battery powered vehicles, geo-thermal energy and ocean thermal energy conversion (OTEC) will be continued and expanded to undertake a wide range R & D programme with a set of inter-related projects. Work will be continued towards setting up a pilot OTEC project at Lakshadweep. Energy Survey and Coordination would be carried out for rural renewable energy systems. The financial allocation for these schemes is Rs. 4.30 crores. Besides, Rs. 0.68 crores have been allocated for Information and Publicity, Regional Offices of the department of Non-Conventional Energy Sources and for International Cooperation.

Energy Generation in 1984-85 and 1985-86 Utilities

(MKWH)

Region	1984-85 (Actual)				1985-86 (Target)			
	Hydro	Thermal	Nuclear	Total	Hydro	Thermal	Nuclear	Total
1	2	3	4	5	6	7	8	9
Northern	18402	22027	1078	41507	19380	25239	1150	45769
Western	6790	42980	1930	51700	7250	48031	1750	57031
Southern	24739	16323	1070	42132	24980	17186	1100	43266
Eastern	3043	16592	—	19635	3390	18624	—	22014
North Eastern	811	848	—	1659	1000	920	—	1920
Total	53785	98770	4078	156633	56000	110000	4000	170000

Targets and Achievement of Additions to Generating Capacity 1984-85

Name of the Project Unit No.	State	Programme (MW)	Achievement (MW)	Slippage (MW)	Date of Comm./ Rolling
1	2	3	4	5	6
NORTHERN REGION					
Hydro					
1. Binwa Unit 1 & 2	H.P.	6	6	—	29-8-84, 8-10-84
2. Anandpur Sahib units 1 to 4	Punjab	134	—	134	
3. Maneri Bhali units 3, 2, 1	U.P.	90	90	—	31-10-84, 19-11-84 14-12-84
Sub-Total (Hydro)		230	96	134	
Thermal					
1. Ropar Unit 1	Punjab	210	210	—	26-9-84
2. Ropar Unit 2	Punjab	210	210	—	29-3-85
3. Paricha Unit 2	U.P.	110	110	—	25-2-85
Sub-total (Thermal)		530	530	—	
TOTAL (N.R.)		760	626	134	
WESTERN REGION					
Hydro					
1. Paithon Unit 1	Mah.	12	12	—	20-11-84
Thermal					
1. Ukai Unit 5	Guj.	210	210	—	30-1-85
2. Sabarmati (AECO)	Guj.	110	110	—	31-12-84
3. Chandrapur Unit 2	Mah.	210	210	—	11-7-84
4. Korbu West Unit 3	M.P.	210	210	—	26-3-85
5. Parli Unit 4	Mah.	—	210	—	26-3-85
Sub-Total (Thermal)		740	950	—	
Total (W.R.)		752	962		
SOUTHERN REGION					
Hydro					
1. Nagarjunsagar . PSS ST II Units 1 & 2	A.P.	200	200	—	26-10-84, 31-3-85
2. Sirisalam Unit 4	A.P.	110	110	—	27-8-84
Sub-total (Hydro)		310	310	—	
Thermal					
1. Ramagundam STPS units 2 & 3	Central	400	400	—	29-5-84, 13-12-84
2. Raichur Unit 1	Karnataka	—	210	—	29-3-85
Nuclear					
1. Kalpakkam Unit 2	Central	235	—	235	
Sub-Total (S.R.)		945	920	235	

1	2	3	4	5	6	7
EASTERN REGION						
Hydro						
1. Rengali Unit 1	Orissa	50	—	50		
Thermal						
1. Patratu Unit 10	Bihar	110	—	110		
2. Barauni Unit 7	Bihar	110	110	—	31-3-85	
3. Muzaffarpur Unit 1	Bihar	110	110	—	31-3-85	
4. Titagarh Unit 4	W.B.	60	60	—	17-3-85	
5. Kolaghat Unit 3	W.B.	210	210	—	24-7-84	
6. Farrakka STPS	Central	210	—	210		
Sub-total (Thermal)		810	490	320		
N. E. REGION						
Thermal						
1. Namrup Waste Heat	Assam	22	22	—	27-3-85	
2. Bongaigaon Unit 3	Assam	60	60	—	26-3-85(R)	
Sub-total (Thermal)		82	82	—		
Total (N.E.R.)		82	82			
ALL INDIA						
Hydro		602	418	184		
Thermal		2562	2662	220		
Nuclear		235	—	235		
GRAND TOTAL		3399	3080	739		

NOTE: Parli Unit 4 and Rajchur Unit 1 of 210 MW each which were not included in the programme for 1984-85 have also been commissioned.
R=Rolled

List of projects likely to yield benefits during 1985-86

Sl. No.	Name of the project and Unit No.	State	Capacity (MW)	Date of Commissioning
1	2	3	4	5
NORTHERN REGION				
Hydro				
1.	Western Yamuna Canal Units 1 and 2	Haryana	16	12/85
2.	Mahi Bajaj Stage-I Units 1 and 2	Rajasthan	50	7/85, 12/85
3.	Anand Pur Sahib Units 1, 2, 3 & 4	Punjab	134	Units 1 & 3-4/85 Units 2 & 4-5/85
Sub-Total : (H)			200	
Thermal				
1.	Panipat Unit—3	Haryana	110	9/85
2.	Anpara Unit—1	Uttar Pradesh	210	12/85
Sub-Total : (T)			320	
Total : (N.R.)			520	
WESTERN REGION				
Hydro				
1.	Tillari Unit—1	Maharashtra	60	12/85
2.	Bandardhara Unit—1	Maharashtra	10	3/86
3.	Pench Unit—1	MP/Maharashtra	80	1/86
Sub-Total : (H)			150	
Thermal				
1.	Wanakbori Unit—4	Gujarat	210	12/85
2.	Korba West Unit—4	Madhya Pradesh	210	12/85
3.	Chandrapur Units 3 & 4 *	Maharashtra	420	5/85, 1/86
4.	Uran Gas Turbine Units 5-8	Maharashtra	432	7/85, 9/85, 11/85, 1/86
Sub-Total : (T)			1272	
Total : (W.R.)			1422	
SOUTHERN REGION				
Hydro				
1.	Nagarjunasagar PSS Stage-II, Unit-3	Andhra Pradesh	100	9/85
2.	Srisaillam Stage-II Unit—6 *	Andhra Pradesh	110	3/86
3.	Kalinadi Stage—I	Karnataka	100	8/85, 10/85
4.	Idamalayar Units 1 — 2	Kerala	75	7/85, 10/85
5.	Idukki Stage -II units 1 & 2	Kerala	260	9/85, 1/86
6.	Servalar Unit—I	Tamil Nadu	20	6/85
Sub-Total : (H)			665	

*Critical

Sl. No.	Name of the Project and Unit No.	State	Capacity (MW)	Date of Commissioning
1.	2	3	4	5
Thermal				
1.	Raichur Unit—2*	Karnataka	210	1/86
2.	Neyveli 2nd Mine Unit—3*	Central Sector	210	1/86
Sub-Total : (T)			420	
Nuclear				
1.	Kalpakkam Unit—2	Central Sector	235	8/85
Sub Total : (N)			235	
Total (SR)			1320	
Eastern Region				
Hydro				
1.	Rengali Units 1 & 2	Orissa	100	7/85, 12/85
Sub-Total : (H)			100	
Thermal				
1.	Patratu Unit—10	Bihar	110	10/85
2.	Muzaffarpur Unit—2*	Bihar	110	3/86
3.	Kolaghat Unit—2	West Bengal	210	12/85
4.	Durgapur (DPL) Unit—6	West Bengal	110	5/85
5.	Bokaro 'B' Unit—1	D.V.C.	210	10/85
6.	Farakka Unit—1	Central Sector	210	8/85
Sub-Total : (T)			960	
Total : (E.R.)			1060	
NORTH EASTERN REGION				
Hydro				
1.	Nungsung Khang Units 1—3	Manipur	1.5	4/85, 5/85
2.	Maharani Units 1 & 2	Tripura	1.0	7/85
3.	Kopili Unit—1	NEEPCO	50.0	3/86
Sub-Total : (H)			52.5	
Thermal				
1.	Bongaigaon—4	Assam	60	10/85
2.	Lakwa Gas Turbine Extn.	Assam	15	12/85
3.	Baramura Gas Turbine Units 1, 2	Tripura	10	11/85, 12/85
Sub-Total : (T)			85	
Total : (N.E.R.)			137.5	
ALL INDIA				
Hydro			1167.5	
Thermal			3057.0	
Nuclear			235.0	
Total :			4459.5	

*Critical
13—500 PC/85

Break-up of Outlay for Annual Plan 1985-86—Power Sector

(Rs. lakhs)

Sl. No.	States/UTs./ Central Dept.	Generation			T & D	Rural Electrification				Renova- tion and Mod- ernisation	Misc.	Total
		ongoing	New	Total		State Plan	REC	MNP	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Andhra Pradesh	7580	305	7885	6959	1284	832	—	2116	—	40	17000
2.	Assam	4208	559	4767	4511	1022	471	1007	2500	241	1208	12227
3.	Bihar	7400	—	7400	5700	100	1265	870	2235	386	79	15800
4.	Gujarat	13285	—	13285	4000	200	825	—	1025	800	47	19157
5.	Haryana	8352	1105	9457	3059	126	374	—	500	264	20	13300
6.	Himachal Pradesh	4328	10	4338	887	25	495	57	577	—	40	5842
7.	Jammu & Kashmir	2200	—	2200	1580	18	595	7	620	180	125	4705
8.	Karnataka	8341	40	8381	5036	500	483	—	983	250	74	14724
9.	Kerala	3510	10	3520	2481	—	319	—	319	—	10	6330
10.	Madhya Pradesh	24590	2400	26990	11613	400	1890	1500	3790	1066	132	43591
11.	Maharashtra	25785	465	26250	7800	4399	1034	—	5433	250	750	40483
12.	Manipur	180	29	209	218	20	20	120	160	—	39	626
13.	Meghalaya	700	—	700	200	—	278	122	400	—	30	1330
14.	Nagaland	50	—	50	170	30	77	58	165	—	30	415
15.	Orissa	6925	—	6925	2600	200	1018	500	1718	50	138	11431
16.	Punjab	17782	—	17782	4800	—	891	—	891	937	30	24440
17.	Rajasthan	8100	—	8100	2529	—	1178	422	1600	—	40	12269
18.	Sikkim	60	186	246	155	—	165	—	165	—	5	571
19.	Tamil Nadu	20112	1407	21519	6500	1047	471	—	1518	363	100	30000
20.	Tripura	301	349	650	100	—	200	—	200	—	10	960
21.	Uttar Pradesh	37125	1000	38125	12776	1073	1702	2300	5075	3250	260	59486
22.	West Bengal	8571	610	9181	3400	46	1846	761	2653	1014	222	16470
Sub-Total		209485	8475	217960	87074	10490	16429	7724	34643	9051	2429	351157
1.	A & N Islands	115	240	335	30	—	—	—	—	—	4	389
2.	Arunachal Pradesh	—	250	250	176	—	—	194	194	—	10	630
3.	Chandigarh	—	—	—	575.84	—	—	—	—	—	—	575.84
4.	Dadra & Nagar Haveli	—	—	—	55	5	—	—	5	—	—	60
5.	Delhi	—	1	1	5388	60	—	—	60	291	160	5900
6.	Goa, Daman & Diu	—	10	10	624	—	—	—	—	—	—	634
7.	Lakshdweep	37.50	7	44.50	14	—	—	—	—	—	—	58.50
8.	Mizoram	—	100	100	400	—	—	150	150	—	30	680
9.	Pondicherry	—	—	—	400	—	—	—	—	—	—	400
Sub-Total UTs		152.5	608	760.5	7662.84	65	—	344	409	291	204	9327.34
II. Central Plan												
1. Department of Power		100614	8373	108987	27258	—	—	—	—	100	1235	137580
NTPC		25854	2310	28164	6082	—	—	—	—	—	200	34446
NHPC		5000	4010	9010	3000	—	—	—	—	9026	4438	25474
Misc.		—	—	—	—	—	—	—	—	—	—	—
Sub-Total		131468	14693	146161	36340	—	—	—	—	9126	5873	197500
2. Department of Atomic Energy		17326	600	17926	—	—	—	—	—	—	2074	20000
3. D.V.C.		8535	1050	9585	1000	—	—	—	—	290	625	11500
4. Neyveli		6500	—	6500	3000	—	—	—	—	1000	—	10500
Sub-Total Central		163829	16343	180172	40340	—	—	—	—	10416	8572	239500
Total All India		373466.5	25426	398892.5	135076.84	10555	16429	8068	35052	19758	11205	599984.34@
N.E.C.		2900	—	2900	1311	—	—	—	—	—	230	4441

@Exclusive of outlay for NEC, Special Projects Agriculture (REC's share), Rural Cooperatives & System Improvement Scheme.

Outlay : Annual Plan 1985-86—Coal and Lignite

(Rs. crores)

Sector/Undertaking	Budgetary Support	Extra-Budgetary Resources	Plan Outlay
A. COAL			
1. Coal India Limited	836.50	15.00	851.50
2. Singareni Collieries Co. Ltd.	72.00	Nil	72.00
Sub-Total—COAL	908.50	15.00	923.50
B. LIGNITE			
Neyveli Lignite Corporation (Mines)	11.00	57.50	68.50
C. Other programmes including Science and Technology	5.00	Nil	5.00
GRAND TOTAL (A+B+C) :	924.50	72.50	997.00

Note:— 1. Extra-Budgetary Resources of Rs. 15.00 crores for CIL relate to external (U.K.) assistance for Amoluri O.C. Coal Project.

2. Provision of Neyveli Lignite Corporation (Mines) includes Rs. 2.22 crores for Rajasthan Lignite Exploration.

3. Outlay for Power Sector of Neyveli Lignite Corporation is included in the Power Sector outlay of Central Sector.

4. Outlay for Central Fuel Research Institute is separately provided under C.S.I.R.

Targets of Production of Crude Oil and Petroleum Products

		(Million tonnes)	
		1984-85 (Actual)	1985-86 (Target)
I. CRUDE OIL			
1. Oil and Natural Gas Commission			
(a) Onland		6.12	6.50
(b) Offshore		20.14	20.61
Sub-Total : ONGC		26.26	27.11
2. Oil India Ltd:		2.73	3.03
Total (I)		28.99	30.14
II. PETROLEUM PRODUCTS			
Installed Capacity		45.55	47.90
Crude Throughput		35.56	42.14
Production		33.15	39.19

Refinery Crude Throughput

Annexure 7.7

(Million Tonnes)

Sl. No.	Organisation	1984-85		1985-86
		Target	Actual	Target
I. Indian Oil Corporation				
(i)	Gauhati	0.80	0.76	0.80
(ii)	Barauni	3.09	2.90	3.09
(iii)	Gujarat	6.85	7.78	6.95
(iv)	Haldia	2.37	2.37	2.63
(v)	Mathura	5.72	6.24	5.69
(vi)	Digboi	0.52	0.53	0.52
	Sub-Total : I	19.35	20.58	19.68
II. Hindustan Petroleum Corporation Ltd.				
(i)	Bombay	3.01	3.22	4.37
(ii)	Visakh	1.92	1.25	3.29
	Sub-Total : II	4.93	4.47	7.66
III. Bharat Petroleum Corporation Ltd.				
		4.94	5.48	5.56
IV. Madras Refineries Ltd.				
		3.49	3.41	4.52
V. Cochin Refineries Ltd.				
		3.10	0.87	3.72
VI. Bongaigaon Refineries and Petrochemicals Ltd.				
		1.00	0.75	1.00
	Total (I to VI)	36.81	35.56	42.14

Organisation-wise plan Outlay
Annual Plan (1985-86)

		(Rs. crores)		
Sl. No.	Organisation	Approved outlay	Extra-Budgetary Resources	Budgetary support
A. Exploration and Production :				
1.	Oil & Natural Gas Commission (ONGC)	2250.00	2125.00	
2.	Oil India Limited (OIL)	280.00	280.00	
3.	Gas Authority of India Limited (GAIL)	100.00	50.00	50.00
	Sub-Total (A)	2630.00	2455.00	175.00
B. Refining and Marketing:				
1.	Indian Oil Corporation (IOC)	135.86	135.86	—
2.	Hindustan Petroleum Corporation Ltd. (HPCL)	156.32	136.32	20.00
3.	Bharat Petroleum Corporation Ltd. (BPCL)	89.44	83.44	6.00
4.	Madras Refineries Limited (MRL)	17.34	11.40	5.94
5.	Cochin Refineries Ltd. (CRL)	14.26	12.26	2.00
6.	Bongaigaon Refineries & Petrochemicals Ltd. (BRPL)	1.84	—	1.84
7.	Lubrizol India Ltd. (LIL)	5.01	5.01	—
	Sub-Total (B)	420.07	384.29	35.78
C. Others				
1.	Engineers India Ltd. (EIL)	13.63	13.63	—
2.	Department of Petroleum (DOP)	21.30	21.30	—
	Sub-Total (C)	34.93	34.93	—
	Total (A+B+C)	3085.00	2874.22	210.78

Scheme-wise Plan Outlay (1985-86)

(Rs. crores)

Sl. No.	Organisation/Scheme	Approved Outlay
1	2	3
I. OIL AND NATURAL GAS COMMISSION		
IA. ONSHORE :		
I. CAPITAL EXPENDITURE		
1.	Surveys	15.00
	Sub-Total : Surveys	15.00
2.	Drilling	
2.1	Geol. Equipments	15.31
2.2	Logging Units and other Tools	36.12
2.3	Deep Rigs—3 Nos.	14.80
2.4	Accessories for 12 replacement Rigs	30.44
2.5	Cementing Units	11.30
2.6	BHEL Rigs—10 Nos.	20.00
2.7	Exploratory Rigs and Accessories 22 Nos.	101.57
2.8	Development Rigs 9 Nos.	9.94
2.9	Mobile Rigs for Cambay Basin Under World Bank Programme	25.00
2.10	BOP Choke and Kill Manifold	21.31
2.11	Handling/Fishing Tools	13.29
2.12	Capitalisation of well Head/Drill Pipe etc.	33.00
2.13	Other Misc. Drilling Equipment	26.93
	Sub-Total : Drilling	359.01
3.	Production	
3.1	Production Equipment for Cambay Development Basin	13.81
3.2	Various Production Equipments	46.50
3.3	Production Installation	10.98
3.4	Flow Lines	7.23
	Sub-Total : Production	78.52
4.	Common Facilities	
4.1	Workshop Equipment	10.55
4.2	Lifting and Earthmoving Equipment	12.05
4.3	Transport Vehicles	8.89
4.4	Land	7.22
4.5	Residential Buildings	12.71
4.6	Factory Buildings	7.80
4.7	General Buildings	9.49
4.8	New Computer	25.86
4.9	Inter Regional/Regional Telemetry & Tele-Communication	5.00
4.10	Regional Computers	6.35
4.11	Other Data Processing Equipment	12.89
4.12	Fire Fighting Equipt., Dispensary Equipt. Fittings etc.	10.81
	Sub-Total : Common Facilities	129.62
	TOTAL : Capital Expenditure	582.15

1	2	3
II. OPERATIONAL EXPENDITURE		
1.	Surveys	52.51
2.	Drilling :	
2.1	Exploratory	285.55
2.2	Development	121.69
TOTAL : Operational Expenditure		459.75
III. WORKING CAPITAL		
Total on-shore		1077.14
B. OFF-SHORE		
I. CAPITAL		
1.	Survey Activity	
1.1	Seismic Vessel II	9.50
1.2	Seismic Vessel III	5.60
1.3	Other Misc. Equipment	2.09
Sub-Total : Survey Activity		17.19
2.	Drilling Activity	
2.1	Drillship (Sagar Bhusan)	9.00
2.2	Jack-up Rigs (2 Nos. MDL)	14.92
2.3	Jack-up Rigs (Advance action for VII Plan)	—
2.4	Drillship/Semi Submersible for VII Plan	10.00
2.5	Logging Units	11.33
2.6	Other Drilling/Geological Equipment	20.44
Sub-Total : Drilling Activity		65.69
3.	Production Activity	
3.1	Acid Boat-cum-Stimulation Vessel	12.16
3.2	NDT cum Inspection Vessel	5.20
3.3	MSV III	7.40
3.4	MSV II	9.32
3.5	Wireline Testing and Completion Equipment	31.87
3.6	Misc. Production Equipment	9.39
3.7	LPG Hazira	22.85
3.8	Gas Sweetening Plant	101.40
3.9	Ethane/Propane Recovery Plant	1.00
3.10	Equipment for Titan Project (Token Provision)	6.14
3.11	Uran Phase II	7.78
3.12	Low RVP	0.20
3.13	Under ground Storage (Token Provision)	0.50
3.14	Power Generation	0.50
3.15	Box Flare	1.00
3.16	Other Misc. Installation for CSU/LPG	5.00
3.17	SH/NQ Complex	90.88
3.18	WIS Process Platform	38.80
3.19	SC Complex	20.00
3.20	N1, N2, N3 Platforms	15.00
3.21	Inter Connecting flow lines	29.88
3.22	EB/EC/ED/EE Platforms	16.00
3.23	New Platform—12 Nos.	12.50
3.24	Panna Complex EPS	29.68
3.25	South Bassein Platform Complex	63.50

1	2	3
	3.26 Other Items of South Bassein	34.17
	3.27 SU/NR/NH/NT/NW/NO Platforms	14.30
	3.28 WEG-WT 10 Platforms	27.69
	3.29 SAA/SAB/SAC/SAD Platforms (Token Provision)	0.04
	3.30 Heera Complex	10.00
	3.31 Computer	0.50
	3.32 Pay and Allowances	2.00
	Sub-Total : Production Activity	626.65
	4. Common Facilities	
	4.1 OSVs	21.69
	4.2 Helicopters	3.97
	4.3 Nhava Development	6.12
	4.4 Equipment for floating workshop (Token Provision)	0.01
	4.5 Land and Buildings	16.55
	4.6 Geo-Tech cum NDT Vessel	11.00
	4.7 Other Misc. items	2.39
	Sub-Total : Common Facilities	61.73
	TOTAL : CAPITAL	771.26
	II. OPERATIONS	
	1. Surveys	13.96
	2. Drilling :	
	2.1 Exploratory	199.40
	2.2 Development	109.89
	TOTAL : Operational Expenditure	323.25
	III. WORKING CAPITAL	22.61
	TOTAL : Off-shore	1117.12
	C. Institutes	2.59
	D. R & D Schemes	53.15
	Total : O N G C	2250.00
	2. OIL INDIA LIMITED	
	A. CONTINUING SCHEMES	
	1. Maintenance of Production facilities in Assam :	
	a. Jorajan Development	17.00
	b. Addl. Power Generation	10.00
	c. Back-up facilities	119.31
	Sub-Total (i)	146.31
	2. Exploration Projects :	
	a. Arunachal Pradesh	
	b. Bay Exploration	Included in 1(c)
	c. Rajasthan	above
	3. Exploration and Development Projects :	
	On shore	
	a. Assam	50.00
	b. Arunachal Pradesh	
	c. Rajasthan	16.26
	d. Mahanadi	4.33
	Sub-Total : Onshore	70.59

1	2	3
	Offshore :	
	a. Mahanadi 1/B	—
	b. North East Coast	40.50
	Sub-Total : Offshore	40.50
4.	Pipe line and Expansion Project	2.10
5.	Andaman Project	20.50
	Sub-Total : (4 & 5)	22.60
	TOTAL—OIL	280.00
3. GAS AUTHORITY OF INDIA LIMITED		
1.	H-B-J Pipeline Project	99.00
2.	LPG Plant	1.00
	TOTAL	100.00
4. INDIAN OIL CORPORATION (IOC)		
	(i) Refineries :	
A. Continuing Schemes :		
1.	Mandatory crude oil Storage Tanks	
	—Phase I B	0.70
	—Phase II	1.60
2.	Additional Coking unit and 12.5 MW TG Set at Barauni Refinery	1.47
3.	Replacement of furnaces in the three distillation units at Gujarat Refinery	
	—AU—I	0.89
	—AU—II	0.99
	—AU—III	4.50
4.	Office accommodation at New Delhi	2.00
5.	Karnal Refinery Project	1.00
	Sub-Total (A)	13.15
B. New Schemes :		
1.	Modernisation of CDU at Gauhati Refinery	4.25
2.	Gujarat Refinery AU—I revamping	
3.	Gujarat Refinery AU—II revamping	3.00
4.	Gujarat Refinery AU—IV revamping	
5.	Gujarat refinery additional secondary processing facilities	0.10
6.	Improvement of efficiency of CDU/VDU heaters at Haldia refinery	0.60
7.	Improvement of heater efficiency in CDU and VDU at Mathura refinery	0.50
8.	Pollution control project	0.10
9.	B.G. Loading facilities at Guahati	
10.	Barge Loading facilities at Gauhati	0.40*
	Sub-Total (B)	8.95
	Total (A + B)—Refineries	22.10
(ii) PIPELINES		
1.	Salaya—Viramgam—Koyali—Mathura Pipeline	1.75
2.	Mathura—Delhi—Ambala—Jullunder Product pipeline	3.47
3.	Telemetry/Telecontrol for HB Section	1.10
	Sub-Total : Pipeline	6.32
	TOTAL : (R & P Division)	28.42

*This provision includes preliminary studies on the schemes under refineries and pipelines which have been transferred to MOP.

1	2	3
(iii) MARKETING DIVISION		
A. Continuing Schemes		
1	LPG Marketing Facilities Phase-I	1.27
2	Office Accommodation at Bombay	
	(a) Main Building	0.14
	(b) Airconditioning of the Building	0.67
3	OIL's LPG Marketing Facilities	5.46
4	Rail Siding and allied facilities at Siliguri	1.83
5	Rail Siding facilities at Madras	1.34
6	Hydrant Dispensers at Delhi	0.44
7	LPM Marketing Facilities—Phase III	56.25
8	Addl. Product Tankages—Phase I	10.00
9	Additional Product Tankages—Phase IIA	4.00
	Sub-Total (A)	81.40
B. New Schemes		
1.	Visakh Dockline Project	0.55
2.	Retail Outlets	2.20
3.	Computer and Communication Net Work	5.00
4.	Office accommodation including Training Centre at Bombay	0.75
5.	Residential Accommodation	4.00
6.	Facilities at existing LPG Bottling Plants as per Vasudevan Committee recommendations	4.16
	Sub-Total (B)	16.66
	TOTAL (A + B)	98.06
(iv) ASSAM OIL DIVISION		
(a) Refinery Wing		
A: Continuing Schemes		
1.	SO ₂ —Drying System	0.58
2.	Digboi Refinery Effluent system	0.96
3.	Digboi/Tinsukia white oil Pipeline renewal	0.26
4.	Residential Accommodation—Phase-I	0.30
	Sub-Total (A)	2.10
B. Marketing Wing		
1.	Marketing of LPG	0.41
2.	Additional Product Tankages—Phase-I	1.74
3.	Additional Product Tankages—Phase II-A	0.50
	Sub-Total - (B)	2.65
	TOTAL (A+B)	4.75
V. R&D Centre		
1.	Phase II & other schemes	3.00
vi. INDIAN OIL BLENDING LTD.		
A. Continuing Schemes		
1.	Plan Projects	1.33
B. New Schemes		
1.	Resitment of Calcutta Plant	0.30
	TOTAL (A + B)	1.63
	TOTAL (i)+(ii)+(iii)+(iv)+(v)+(vi)	135.86

1	2	3
5. HINDUSTAN PETROLEUM CORPORATION LTD.(HPCL)		
(i) REFINERY PROJECTS		
A. Continuing Schemes		
1.	Bombay Refinery Expansion	8.00
2.	Hexane Maximisation (B)	2.12
3.	ATF Maximisation (B)	1.19
4.	New Crude Oil Furnaces (B)	2.07
5.	Hydrogen Recovery (B)	0.92
6.	CO Boiler (B)	4.00
7.	Captive Power Plant (B)	4.00
8.	Visakh Refinery Expansion	5.31
9.	Replacement of Boilers (V)	
	—Phase I	0.03
	—Phase II	0.98
10.	Waste Heat Boiler (V)	0.12
11.	Crude Oil Discharge Pipeline (V)	5.53
12.	Furnace Replacements (V)	3.00
13.	Heat Exchanger and other facilities (V)	3.00
14.	Mangalore Refinery	0.88
	Sub-Total (A)	41.15
B. New Schemes		
1.	Conversion of Phenol Extraction Plant to New Solvent (B)	0.10
2.	Energy Conservation Schemes (B/V)	0.50
3.	Environmental Schemes/Anti-Pollution Projects (B/V)	0.10
4.	Office Accommodation	0.75
5.	Fire Fighting Facilities	1.00
6.	Lube Base Stock Augmentation Facilities (B)	5.00
	Sub-Total : (B)	7.45
	TOTAL (A+B)	48.60
ii. MARKETING PROJECTS		
A. Continuing Schemes		
1.	Bombay—Pune Pipeline	7.07
2.	Aviation facilities	0.80
3.	Visakh Terminal	3.92
4.	Palam Airport Fuelling facilities (HPC Share)	0.48
5.	Oil Terminal, New Bombay	7.00
6.	Safety in LPG Bottling Plants	0.80
7.	Residential Units	2.90
8.	LPG Phase II (net of deposits)	0.65
9.	LPG Phase III (net of deposits)	70.00
10.	Additional Product Tankages—Phase I	4.08
	Sub-Total (A)	97.70
	(B)—Bombay Refinery	
	(V)—Visakh Refinery	

1	2	3
B. New Schemes		
1.	Cylinders for DBC*	—
2.	Additional Product—Tankage—Phase IIA	1.50
3.	Improvement at Retail Outlets	2.10
4.	Consumer Pumps	0.60
5.	Office Accommodation	0.75
6.	Residential Accommodation (Refineries & Marketing)	4.50
7.	Tank Trunks and Refuelers	0.37**
8.	Modernisation of Equipment at Blending Plants	0.20***
9.	Lube Oil Pipeline (Bombay)	
	Sub-Total (B)	10.02
	TOTAL (A+B)	107.72
	TOTAL RHPCL	156.32
6. BHARAT PETROLEUM CORPORATION LIMITED (BPCL)		
1. Refinery Projects		
A. Continuing Schemes		
1.	Debottlenecking of crude distiller and installation of additional secondary processing facilities	8.96
2.	Sulphur Extraction Plant	1.16
3.	Maximisation of ATF Production	0.64
4.	CO Boiler for FCC Unit	0.80
5.	New furnace for High Vacuum Unit	3.93
6.	Additional Exchangers and Air-Preheaters	2.66
7.	Staff Quarters—Scheme V (CISF)	1.50
	Sub-Total (A)	19.65
B. New Schemes		
1.	Replacement of internals of existing CDU & FPU Columns	0.10
2.	Augmentation of Product despatch facilities (Refinery)	0.10
3.	Augmentation of Product despatch facilities (Sewree)	0.10
4.	Facilities to receive BH crude at 7000 tonnes/hr.	0.75
5.	Provision of Electric Tracing on the offsites/process lines in the Refinery	0.10
6.	Modification of CDU Furnace—Phase-I	0.10
7.	Improvement of effluent discharge treatment facilities	1.00
8.	Staff Quarters	1.00
	Sub-Total (B)	3.25
	TOTAL (A+B)	22.90
ii. MARKETING PROJECTS		
A. Continuing Schemes		
1.	Marketing of LPG—Phase II	0.83
2.	Marketing of LPG Phase III/III-A	40.00
3.	Additional Product Tankages—Phase I	7.00
4.	Aviation Fuel Hydrant at Palam	2.22
5.	Computer system	0.28
6.	Procurement of LPG Cylinders and Pressure Regulators for replacement as per CCOE's directive	5.76
7.	Additional Product Tankage—Phase II A	3.00
8.	Office and Residential Accommodation	
	Staff Quarters—Scheme-I (Juhu)	0.69
	Staff Quarters—Scheme-II (Delhi/Kandla/Haldia)	0.84
	Staff Quarters—Scheme-III (Gokuldham)	1.50
	Staff Quarters—Scheme-IV (Noida/Gurgaon)	0.80
	Sub-Total (A)	62.92

*Self financing

**For refuelers only.

***These provisions also include study of schemes which have been transferred to MOP.

1	2	3
B. New Schemes		
1.	LPG Cylinders for DBC*	—
2.	Modernisation of Blending Equipment of Lube blending plants at Bombay/Calcutta	0.20
3.	Retail outlets	1.77
4.	Consumer Pumps	0.50
5.	Taluka Kerosene Depots	0.03
6.	Tank Trucks/Refuelers and Dispensers	0.37
7.	Transfer Pipeline between BPCL/HPCL refineries for Bombay—Pune Product Pipeline	0.75
	Sub-Total (B)	3.62
	Total (A+B)	66.54
	Total—BPCL	89.44
*Self financing		
7. MADRAS REFINERIES LTD. (MRL)		
A. Continuing Schemes		
1.	Expansion of Refinery from 2.8 to 5.6 MTPA	4.74
2.	Mandatory Crude Tankage—Phase II	1.71
3.	Energy conservation Projects	2.00
4.	Facilities for Power Generation	6.55
	Sub-Total (A)	15.00
B. New Schemes		
1.	Facilities for low flash diesel	1.00
2.	Asphalt Plant Improvement (Operations/Safety)	0.50
3.	Flare Gas Recovery	0.01
4.	Educational Facilities	0.03
5.	Engineering & Training Institute	0.30
6.	Facilities for feeding LAB feedstock for TIDCO	0.10
7.	Conversion of Gas Oil Hydrodesulphuriser to Mild Hydrocracker	} 0.40**
8.	Process Optimisation	
9.	Processing of BH Crude in existing refinery	
10.	Processing of reduced crude in FCCU	
11.	Manufacture of Lube additives	
12.	Revamping of Furnaces	
13.	Conversion of Platformer unit for solvent production	
14.	Manufacture of Hexane	
	Sub-Total (B)	2.34
	TOTAL (A+B)	17.34
**Provision for studies only.		
8. COCHIN REFINERIES LTD. (CRL)		
A. Continuing Schemes		
1.	Secondary Processing Project	} 6.85
2.	Refinery Expansion to 4.5 million tonnes	
3.	Additional Safety & Fire fighting equipment—Phase-I	1.50
4.	Energy Conservation Projects:—	
	(a) Improvement to Thermal efficiency on heaters	1.04
	(b) Insulation of LSHS/Asphalt tanks and burners changing in heaters	0.25
5.	Administration Building Expansion	0.67
6.	Additional Product Storage facilities—Phase I	2.30
	Sub-Total (A)	12.61
*Self financing		

1	2	3
B. New Schemes		
1.	Additional Safety Fire Fighting Facilities-Phase-II	1.25
2.	Induction of CISF and Provision of residential and related facilities	0.10
3.	Sludge Disposal	0.20
4.	Production of special Boiling Point Spirits	0.10
	Sub-Total (B)	1.65
	Total (A+ B)	14.26
9. BONGAIGAON REFINERY AND PETROCHEMICALS LTD. (BRPL)		
A. Continuing Schemes		
1.	Captive Power Plant	1.84
	Total (BRPL)	1.84
10. LUBRIZOL INDIA LTD. (LIL)		
A. Continuing Schemes		
1.	Renewals and Replacements	0.39
2.	Engine oil Detergent—Phase-II	0.20
3.	Sulfonic Acid manufacture	0.65
4.	R & D Lab—Phase I	0.11
5.	Engine Testing Lab.	1.03
	Sub-Total (A)	2.38
B. New Schemes		
1.	Renewals and Replacements	0.62
2.	Engine Oil Dispersant—Phase-III	0.90
3.	Engine Oil Detergent Phase—III	0.48
4.	Regd. and Sales Office	0.40
5.	R & D Lab—Phase-II	0.19
6.	N ₂ CO ₂ Plant	0.01
7.	Expansion of Blending Plant and Drum Storage Facilities	0.01
8.	Pour Point Depressant/V.I. Improver manufacture	0.01
9.	Effluent Treatment Disposal	0.01
	Sub-Total (B)	2.63
	Total (A+ B)	5.01
11. ENGINEERS INDIA LTD. (EIL)		
A. Continuing Schemes		
1.	E. I. House	0.19
2.	E.I. House—Annexe	1.39
3.	R & D Centre at Gurgaon	7.60
4.	Housing Complex for R & D Centre	1.01
	Sub-Total (A)	10.19
B. New Schemes		
1.	Housing Complex for EIL Township, Gurgaon	1.79
2.	Computer and Accessories	1.15
3.	Office and Residential Accommodation	0.50
	Sub-Total (B)	3.44
	TOTAL (A+ B)	13.63
12. MINISTRY OF PETROLEUM (MOP)		
New Scheme		
	Refinery and Marketing	21.30
	Total (Refineries and Marketing)	455.00
	Grand Total—Ministry of Petroleum	3085.00

Statement showing scheme/sectorwise final outlay for Annual Plan 1985-86 for DNES.

Annexure 7.10

(Rs. in crores)

S. No.	Name of the scheme	Final Outlay
1.	Biogas	
	(a) NPBD	46.25
	(b) CBP/IBP	3.02
	(c) R & D on biogas	1.50
2.	Solar photovoltaics	6.00
3.	Solar thermal	6.50
4.	Wind energy	5.00
5.	National Programme on demonstration of Improved chulahs	5.00
6.	Biomass	6.00
7.	Urban waste	2.00
8.	Draught Animal Power	0.75
9.	Magneto hydro dynamics	3.00
10.	Micro hydel programme	} 4.30
11.	Ocean energy	
12.	Chemical source of energy	
13.	Hydrogen energy	
14.	Battery Power Vehicle	
15.	Geothermal	
16.	Rural Renewable Energy System	
17.	Information & Publicity	0.50
18.	Regional Offices	.10
19.	International cooperation	.08
	TOTAL	90.00

CHAPTER 8

VILLAGE AND SMALL INDUSTRIES

The Village and Small Industries which represent the decentralised industrial sector, continue to play a vital role in the generation of employment opportunities on a dispersed basis and the utilisation of resources in men and material. By their very nature these industries involve comparatively low capital investment. They offer ample opportunities for exploitation of skills available in rural and semi-urban areas and the preservation of craftsmanship. Promotion of small industries considerably checks the migration from rural to urban areas and its adverse consequences. At the same time, the development of modern small industries, particularly in the urban areas, has alleviated urban unemployment to some extent. The various organisations created at the Central level for the promotion of different segments of the village and small industries sector have provided the basic technical and other infrastructural support for the promotion of this sector. While the Central efforts have been quite significant, the major responsibility for developing these industries continues to lie with the State Governments and Union Territory Administrations.

8.2 At the beginning of the Sixth Plan, employment coverage in the specified industry-groups of the village and small industries sector was over 21 million persons. By the end of 1984-85, which is the terminal year of the Sixth Plan, this coverage was of the order of 28.7 million persons which was somewhat lower than the target of 29.5 million persons. The village and small industries sector as a whole contributed about 50% in terms of value added in the manufacturing sector. In the matter of exports, achievement by the end of 1984-85 is estimated to have been a little lower than the target laid-down in the Annual Plan. Annexure 8.1 shows the estimates of production, exports and employment in the village and small industries sector during 1983-84; the targets and achievements for 1984-85 as well as the targets for 1985-86 are indicated in Annexure 8.2.

8.3 It would be seen from Annexure 8.2 that except for handicrafts, sericulture, small scale industries and powerlooms, the anticipated production in the other sub-sectors falls short of the target set for 1984-85. This is due to several factors, including insufficient supply of raw materials, lack of adequate and timely credit, marketing assistance and technological obsolescence. A Committee was set up (in the Planning Commission) to study the impediments in the flow of institutional finance and suggest measures to overcome them. The Committee has submitted its report and the recommendations are under examination. In the case of Khadi and Village Industries (KVI) falling under the purview of Khadi and Village Industries Commission (KVIC) the shortfall is more pronounced with respect to the village industries where a total package programme (on the lines of khadi) is still to be evolved to assist the artisans. There has been a

shortfall in the coverage of cottage industries under the 'Industry' segment of the industry, service and business (ISB) component of the Integrated Rural Development Programme (IRDP). The involvement of the States in promoting Khadi and Village Industries has also not been achieved to the desired extent. The employment generated in the KVI sub-sector also falls short of the target fixed at the beginning of the Sixth Plan.

8.4 As regards handlooms, there has been a shortfall in terms of production, employment coverage and exports. The production of raw silk in 1984-85 is estimated at 67.54 lakh kgs. which is lower than the Sixth Plan target of 90 lakh kgs. However, the exports of silk fabrics, made-ups, etc. are anticipated to be of the value of Rs. 129 crores against the Sixth Plan target of Rs. 100 crores. The progress made by coir industry has been discouraging on account of the drought conditions that prevailed in Kerala and the unfavourable climate in the international market. Therefore, the targets of production, employment coverage and exports set for 1984-85 in the Sixth Plan have not been achieved. Though exports from all the coir producing countries have declined in the recent past, in the case of India the decline seems to be steeper. The modern small scale industries have progressed well when compared to the targets in the Sixth Plan. However, dispersal as anticipated, has not taken place in this sub-sector.

Annual Plan 1985-86

8.5 The programmes of the village and small industries sector during 1985-86 are intended to subserve the objectives laid down in the Seventh Plan, namely growth and dispersal of these industries, improvement in the levels of productivity and earnings of the artisans, sustenance and creation of avenues of self-employment, augmentation of supply of goods and services through the use of local skills and resources, promotion of entrepreneurship and preservation and improvement of craftsmanship. The major thrust of the programme and policies would be towards strengthening of infrastructural facilities, development and dissemination of appropriate technology, upgradation of skills in line with the degree of sophistication of the existing and emerging production processes, devising coherent marketing strategies, taking up measures for supply of inputs in adequate measures and in time, etc.

8.6 In order to provide an impetus to faster growth and modernisation of this sector, the investment limit for plant and equipment in small scale industries was increased to Rs. 35 lakhs (Rs. 45 lakhs in case of ancillaries) in March, 1985. The revised definition should enable the sector to play a more vital role by taking up sophisticated lines of production and adopting modern technologies. The general support to small scale industries units would be of such a nature

as to enhance their competitiveness. Financial and technical assistance would be extended to enable this sector to take advantage of the economies of scale, reduce the incidence of sickness, etc.

8.7 The policies and programmes would continue to aim at rationalisation of the fiscal and taxation regime, creation of appropriate infrastructure, introduction of modern management techniques, upgradation of skill of artisans and propagation of appropriate technology and adoption of coherent marketing strategy both for internal consumption and for exports. The organisational set-up would be revamped to overcome obsolescence of the skill and technology. A programme of human resource development encompassing the different fields would be initiated. Research and Development efforts would be stepped up and commercial production and distribution of improved equipment would be undertaken. The data base for the village and small industries sector would be further strengthened and a more effective mechanism of monitoring evolved.

8.8 A brief review of the sectoral progress achieved during the year 1984-85 and the major programmes and schemes visualised in the Annual Plan 1985-86 are given in the following paragraphs.

Small Scale Industries

8.9 The value of production in small scale industries during 1984-85 is estimated at Rs. 50,520 crores. The small scale industries generated an additional employment of 6 lakh persons in 1984-85, representing an increase of about 7% over the level of the preceding year. Exports are estimated to have increased from Rs. 2159 crores in 1983-84 to Rs. 2350 crores in 1984-85. In 1985-86, the value of production is targeted to reach Rs. 55,225 crores and employment is likely to increase by an additional 5 lakh persons to 95 lakh persons by the end of the year. The target fixed for exports is Rs. 2630 crores.

8.10 The District Industries Centres (DICs), 397 in number covering 410 districts in the country, assisted during 1983-84 on an average, in the establishment of 882 units comprising 692 artisan-oriented and 190 small scale units per DIC. There had been a deceleration of activity of the DICs. On an average, employment opportunities for 2816 persons per DIC were generated during 1983-84 as compared to 3119 persons during 1982-83. The restructuring of the DICs with a view to provide the necessary technical expertise in these centres has not been achieved. The appointment of project managers (Technical) in addition to the General Manager and Functional managers has not taken place in the majority of the DICs. Despite the fact that the DICs have been operating as a nodal point for the promotion of industries at the district level since their inception 1978, the objective of their serving as a single window agency still remains to be achieved. The need for evaluating the functioning of the DICs has been felt and the Programme Evaluation Organisation (PEO) of the Planning Commission has been entrusted with the task of conducting a study for this purpose. Recognising the need for higher expenditure, the present ceiling of central assistance for

DICs both in respect of recurring and non-recurring components has been enhanced from Rs. 3 lakhs to Rs. 4 lakhs per DIC per annum.

8.11 The Central scheme of self-employment for educated unemployed youth introduced in August, 1983 to cover the specific bracket of educated unemployed youth was modified in the year 1984-85. In order that suitable employment is created and durable assets are acquired, it was stipulated that assistance may be provided for a minimum of 50 per cent of the total number of persons for establishment of industrial ventures and not more than 30 per cent for small business. The scheme has now been extended upto 31-3-1986. Taking into account the special problems of hill areas, the ceiling for industry has been reduced to 30 per cent and no upper ceiling has been fixed in the case of business. During 1984-85, out of 8.94 lakh applications received by DIC Task Forces, 3.68 lakh applications were recommended to the banks involving a credit of Rs. 369.71 crores. For the purpose of assessment of the scheme, data is being collected by the office of Development Commissioner (SSI) by selecting one district from each State/UT for 100% evaluation of the sanctioned cases to assess the type of units that have been set up, the assets created, the problem if any, etc.

8.12 As a part of organising training programme in a coordinated manner, the National Institute of Entrepreneurship and Small Business Development was established in July, 1983 as an apex organisation. During 1983-84, 8 courses benefiting 210 persons were conducted and in 1984-85 a conference on women entrepreneurs was also organised. In order to improve the efficiency of the training programme, an Expert Committee has been appointed by the Institute to evolve modern syllabi for various groups of entrepreneurs. The scheme for modernisation of small scale industries has been further intensified. Identification and motivation of entrepreneurs, conducting of in-plant studies and preparation of guidelines giving the details on modernisation techniques/procedures are being undertaken. The IDBI has formulated a soft loan scheme to facilitate technology improvement in small scale units.

8.13 At present 873 items are reserved for production in the small scale sector. An Advisory Committee has been set up to determine the additional items that may be reserved for exclusive production in this sector. In addition, 409 items have been reserved under the scheme of exclusive purchase by the Government from small scale units, 13 items for purchase upto 75 per cent and 28 items for purchase upto 50 per cent of the requirements; unreserved items also get price preference, the quantum of which is decided on merits. Other incentives available to small scale units include exemption from paying registration fee and non-payment of security deposits in case of units registered with National Small Industries Corporation (NSIC) under the single point registration scheme.

8.14 There has been an increase in sales of small industries products effected through the NSIC. Orders

secured by units registered with the NSIC under the Government purchase programme were of the value of Rs. 350 crores in 1984-85 as compared to Rs. 267 crores in 1983-84. The Corporation has made modest progress with profits increasing from Rs. 32.63 lakhs in 1983-84 to an estimated level of Rs. 84 lakhs for 1984-85. A Committee has been set up to examine the working of the Hire purchase and Marketing Scheme of the NSIC and to improve the services being rendered to small scale units.

8.15 The institutional network of Small Industries Development Organisation consisted of 26 small industry service institutes, 20 branch institutes, 40 extension centres, 4 regional testing centres, 1 product-cum-process development centre and 2 footwear training centres. This has been further strengthened by establishing 12 new branch institutes in backward areas and 20 field testing stations in areas of concentration of specific types of industries. Three new process-cum-product development centres in the area of casting and forging, sports goods and domestic electrical appliances for the upgradation of technology have been set up. A Central Institute for Handtools is also proposed to be set up at Nagaur in Rajasthan. The programme of setting up of new common facility centres/tool rooms is under consideration. A committee was set up to review the functioning of the existing prototype Development and Training Centres (PDTCs) and to examine the scope for setting up new PDTCs. The committee has submitted its report and its recommendations are under examination.

Coir

8.16 Against the Annual Plan 1984-85 targets of 1.78 lakh tonnes of production of coir fibre and exports of Rs. 30 crores, the production is estimated at 1.49 lakh tonnes and exports of the order of Rs. 26 crores. The production of coir fibre has been primarily affected due to drought conditions in the coir producing States. Exports of coir products have also declined on account of recession in European countries and severe competition from cheaper synthetic substitutes. The situation is likely to improve in the near future with projections being made of a good harvest. The target of production of coir fibre for 1985-86 has been fixed at 1.83 lakh tonnes and that of exports at Rs. 28 crores.

8.17 In 1985-86, the thrust on research and upgradation of technology in areas like process improvement in retting of coir fibres, development of equipment for extraction of coir from retted husk and spinning retts, improvements in dyeing for increased fastness, development of coir handlooms and improvement of weaving techniques, product development and diversification of products, etc. will be continued.

8.18 The existing scheme of cooperativisation would be pursued more vigorously to promote viable cooperative societies and increasingly bring the coir workers under the cooperative fold so that they get better wages and are engaged on a full-time basis. To enable the cooperative societies to take full advantage of the scheme, the norms for giving assistance for

share capital, modernisation, renovation of equipment, etc. are proposed to be liberalised. Under the scheme, assistance is also given to cooperative societies for the use of mechanical crusher before the retting process.

8.19 The three regional coir training and development centres set up in the States of Tamil Nadu, Karnataka and Andhra Pradesh for the development of brown coir industry and to meet the requirements of trained personnel would be strengthened. In addition, the Coir Board proposes to open more sales outlets to supplement the existing 18 show rooms. Internal sales are to be promoted through increased publicity to be achieved by holding exhibitions, screening of films, use of massmedia, etc. Efforts to promote exports would also be intensified through advertisements, publicity, trade delegations, fairs etc.

Handlooms

8.20 Labour intensive in nature, the major programmes in the handloom sector aim at improving the levels of productivity of the weaver and the loom. Schemes have been undertaken to enhance cooperative coverage of looms, to arrange for supply of raw materials, particularly mill-made hank yarn, and to provide credit, technological support, design and marketing services. Against a target of bringing in 18 lakh looms under the cooperative fold upto 1984-85, the anticipated achievement is 17.5 lakh looms; however the progress made by different States is uneven. A review of the cooperativisation programme in different States would be undertaken primarily to assess its impact on the productivity of the loom and the earnings of the weavers.

8.21 To facilitate supply of hank yarn establishment of 13 new cooperative spinning mills and expansion of 6 existing mills was taken up during the Sixth Plan. However, only two mills and the six existing mills were provided with bank finance. Considering the slow progress in this regard, a committee has been set up in the Ministry of Commerce to review the need for creating new spinning capacity and process the cases for establishment of spinning mills in the cooperative, public and joint sectors.

8.22 The new Textile Policy announced in June, 1985 has accorded a special place to the Handloom Sector. The responsibility for the entire production of controlled cloth is proposed to be transferred to the handloom sector by the end of the Seventh Plan period. It is also proposed to increase the quantity of Janata cloth and controlled cloth. The Production of mixed and blended fabrics on handlooms will be encouraged with a view to improve the wages and earning of handloom weavers. While powerlooms would be permitted to be established subject to locational guidelines, effective measures would be evolved to prevent their encroachment on items reserved for the handloom sector. Reservation for handloom would be enforced under the new "Handloom (Reservation of Articles for Production) Act, 1985". Added emphasis would be laid on modernisation of looms and provision on technological and other inputs, design support, improvement in

the finish of the handloom products etc. to eliminate the cost disadvantage of handlooms *vis-a-vis* the powerlooms. Concerted efforts would be made to improve marketing infrastructure and also strengthen and improve the data base of the industry. The schemes of contributory thrift fund and workshed-cum-houses are being initiated.

8.23 In the light of the above policy support proposed to be extended to the handloom sector, the target of handloom production has been placed at 3870 million metres for 1985-86. This is likely to provide employment to about 80 lakh persons. Appropriate measures would be taken to assist weavers both within and outside the cooperative sector. The export target for handloom products for 1985-86 has been fixed at Rs. 368 crores.

Powerlooms

8.24 The powerloom sector has performed very well with the anticipated production of 4930 million metres by the end of 1984-85. According to the All-India Powerloom Board, the production reached a level of 5355 million metres. The industry has provided employment to 32.19 lakh persons. The target set for powerloom cloth for 1985-86 is 5400 million metres. The increase in production is expected to be achieved through better utilisation of existing capacity.

8.25 During 1985-86, it is proposed to set up 3 new powerloom service centres in addition to the existing 12 centres to impart training on looms and better loom maintenance, provide testing facility, develop new designs and collect statistics on the powerloom industry.

8.26 The efforts to prevent encroachment of the powerloom sector on the handlooms would be intensified. However, the responsibilities of enforcing the Handloom Act for prevention of encroachment are yet to be operationalised.

8.27 The new Textile Policy of June, 1985 envisages compulsory registration of all powerlooms. The organisation of production in the powerloom sector would be guided by the objectives of raising productivity, increasing efficiency, improving workers' welfare and facilitating locational dispersal. For the purpose of policy, powerlooms in the organised mill sector and in the unorganised powerloom sector shall, as far as possible, be treated at par and allowed to compete on the basis of their inherent strength and capabilities.

Handicrafts

8.28 During 1984-85, production of handicrafts was estimated at Rs. 3500 crores as targeted in the Annual Plan. Of this Rs. 1700 crores would represent exports; this was slightly less than the target. In 1985-86, production is expected to increase to Rs. 3815 crores and of this, exports would be of the order of Rs. 1896 crores.

8.29 The existing Central programmes of training, design and technology development, supply of raw materials and marketing assistance would be continued. Training programmes in respect of hand-knotted carpets, art metal wares, hand-printed textiles and wood wares would also be continued. Presently, there are

432 ordinary carpet weaving training centres and 57 advanced training centres. With a shift in the international demand in favour of carpets of higher knotage, it is proposed to convert the existing ordinary centres into advanced training centres. Six training centres to impart training in washing and finishing of carpets are proposed to be opened by conversion of the existing carpet-weaving training centres. A total of 15,425 craftsmen received training in different crafts during 1984-85. For 1985-86, the target is to train 15,200 craftsmen.

8.30 An autonomous society under the name "Kangtantra" has been set up to bring under a single umbrella the existing four design centres functioning at Calcutta, Bombay, Bangalore and Delhi as well as the National Institute of Hand-Printed Textiles at Jaipur. The Society would be operating on a project approach basis and draw assistance from design consultants, marketing organisations' exporters and artisans. A jewellery design and product development centre is proposed to be set up to assist the artisans in getting the latest designs and tools and to meet their training requirements. It is also proposed to establish additional marketing and service extension centres in specific areas to cater to the requirements of the weaker sections. Further, the functioning of the Central/State corporations and apex societies would be reviewed. Assistance to State Governments for purchase of shares and provision of managerial subsidy would be enlarged. A scheme for giving a package of assistance to industrial cooperatives would also be taken up.

Khadi and Village Industries

8.31 The achievement in 1984-85 in the production of khadi and village industries under the purview of KVIC has been reckoned at Rs. 929 crores. This would reflect a shortfall of about 10% against the Annual Plan target of Rs. 1000 crores set for the year. However, if allowance is made for price escalation and the achievement is compared with the original target set for 1984-85 in the Sixth Plan, the shortfall would be quite substantial. As regards employment coverage, against the Sixth Plan target of 40.50 lakh persons for 1984-85 (excluding generation of employment for 10 lakh persons under IRDP), the employment generated is estimated at 37 lakh persons, representing a shortfall of about 8.6 per cent. Against the additional 10 lakh jobs envisaged under the 'Industry' component of the IRDP, only a nominal achievement has been reported. The main reason for this is that the KVIC could not establish the requisite organisational linkages with the District Rural Development Agencies (DRDAs) in the task of identification of beneficiaries. Accordingly, during the two years 1983-85, it could take up only 500 blocks for assisting the artisans engaged in various cottage industries. In the matter of availability of bank finance also, while there has been a substantial improvement in the flow to the registered institutions engaged in khadi production, the achievements have fallen short of the targets and also of the requirements of the artisans for their production cycle. Against the flow of funds of Rs. 320 crores from banks during the Sixth Plan, KVIC has been able to mobilise funds only to the tune of Rs. 120

crores. The KVIC has been attaching considerable importance to its R&D efforts so as to evolve improved tools and equipments and produce them on commercial scale for supply to the field agencies. This work has received an impetus with the setting up of a separate Directorate of Instrumentation. A separate Directorate was also set up for the promotion of forest-based industries so as to exploit the surplus forest-resources available and also at the same time provide gainful employment opportunities to Scheduled Castes and Scheduled Tribes who are mainly engaged in these industries. While there has been marginal improvement in the productivity and earnings of the artisans, these are still very low. Some of the problems have been traced to the lack of effective coordination between KVIC and the field agencies including the State KVI Boards and the DRDAs. The KVIC had organised a Conference of the Chairmen of the various Institutions engaged in the promotion of khadi and village industries with a view to have proper feedback and exchange of experience. Various recommendations emerging from the Conference were being given consideration at appropriate levels. A Committee has been set-up in the Ministry of Industry which would review the working of the KVIC and other organisations engaged in the implementation of the khadi and village industries programme.

8.32 During 1985-86, which is the first year of the Seventh Five Year Plan, efforts would be concentrated to bring further improvement in the productivity of the artisans so that they are brought above the poverty line. For this purpose, a package of assistance would be provided. The training programme, which is an important input, would be reoriented and improved equipments would be produced at an enhanced scale and supplied to the artisans. The shelf of projects would be updated in coordination with the NABARD so that the flow of bank finance under the refinance scheme of NABARD becomes easy. During 1985-86, it is proposed to distribute 500 sets of 6-Spindle NMCs, 200 sets of 12-Spindle NMCs, 50 sets of Polyvastra Charkhas (each set comprising 25 Charkhas) and 100 Pot Charkhas for improving the productivity and quality of the cotton khadi. In the case of woollen khadi also, it is proposed to distribute 50 sets of improved woollen charkhas (each set comprising 20 charkhas) and for muslin khadi, 100 sets (each consisting of 50 charkhas). In the case of village industries, the improved equipments and machinery proposed to be distributed would comprise 7000 Atta Chakies, 3500 Power Ghanies, 5700 Improved Beehives, 4500 Honey Extractors etc. 20,000 Gas Plants would also be installed by KVIC during the year 1985-86, against an achievement of 18,000 for the previous year.

8.33 Based on the recommendations of the Study Group set up by the KVIC, training facilities would be improved and it is proposed to train 2500 spinners/weavers under khadi and 8500 artisans under different village industries. This will be in addition to the training programmes under TRYSEM. In order to enlarge the marketing base, it is proposed to examine the feasibility of bringing in private trade channels in the marketing of village industries products and devise suitable organisations for the purpose.

SERICULTURE

8.34 The Sixth Plan target of producing 90 lakh Kgs. of raw silk by 1984-85 could not be achieved. In the Annual Plan 1984-85, after taking into account a number of factors including inadequate seed production, slow extension of area under plantations, non-adoption of improved variety of mulberry, difficulties in long distance transportation of mulberry cuttings, drought conditions in some silk producing States, etc., the production was anticipated at 67.54 lakh kgs. This lower estimate of production is likely to be achieved. In the case of exports, the expected achievement is of the order of Rs. 129 crores. Based on the measures to be implemented to sort out the various problems as well as the infrastructure programme envisaged, the target of production of raw silk for 1985-86 has been fixed at 76 lakh Kgs. of which 70 lakh Kgs. would be mulberry. Non-mulberry production would comprise 3.48 lakh Kgs. of tasar, 0.55 lakh kgs of muga and 1.97 lakh Kgs. of eri.

8.35 Recognising seed to be the sheet anchor of the sericulture industry, the National Silkworm Seed Project (NSSP) taken up in 1981 is proposed to be further strengthened in its programme of production of disease free layings (DFLs), supply of mulberry cuttings and equipments and organisation of cold-storage facilities for preserving bivoltine silkworm seeds. The Project has gone a long way and the production of DFLs has increased from 12 million in 1980-81 to 15 million in 1983-84. However during the first 8 months of 1984-85, the production of DFLs was of the order of 6.9 million only. During 1985-86, 6 seed centres are proposed to be established at Mohana in Orissa, Bangil in Jammu and Kashmir, Udaipur in Rajasthan and Huliadmga, Hubli and Hassan in Karnataka. In addition, one parent seed maintenance and multiplication station in Karnataka, two basic seed farms, one in Andhra Pradesh and the other in Jammu and Kashmir, two seed farms in Karnataka and West Bengal and two commercial seed farms in Jammu and Kashmir are proposed to be started. The programme also envisages setting up of three commercial seed production centres and chawkie rearing centres in major silk producing States. Five regional offices are also proposed to be established under the National Silkworm Seed Project in different States.

8.36 The on-going projects would be further strengthened. Under the Inter-State Tasar Project, against the original target of plantation in 6000 hectares, the area brought under plantations during 1981-82 to 1983-84 was 5236 hectares. The target for 1984-85 was placed at 2836 hectares.

8.37 The bivoltine programme continued to make slow progress, due mainly to lack of adequate demand for bivoltine silk from consuming centres and unremunerative prices. Schemes of subsidy are under consideration for extending the necessary price support to both rearers and reelers. Improvements are called for in the reeling, weaving and finishing processes. Research efforts also need to be intensified and extension support strengthened.

8.38 Research support extended by the Central Sericulture Research Institute, the Regional Sericulture Research Stations and Sub-stations would also be further strengthened and intensified. Basically these provide the necessary technical support to the State Departments of Sericulture and the private sericulturists. During 1985-86, additional research extension centres would be taken up, improved varieties of mulberry strains evolved, hybridization of varieties attempted so as to achieve study races, information relating to adoption of improved techniques disseminated and, in general, necessary research and technical support in terms of rearing and reeling would be provided. The Central Silk Technological Research Institute is already engaged in improving and developing post-

cocoon technology. The Institute has brought out 2 innovations of improved charkha and improved pedal spinning wheels which are being released to the industry. Research programmes in silk reeling, spinning, weaving, wet processing and fabrication of equipment will be continued and demonstration-cum-training centres will be established in a large number of sericulture States.

Outlay for 1985-86

8.39 The actual expenditure during 1983-84, revised estimates for 1984-85 and outlays provided for 1985-86 for different sub-sectors are shown in Annexure—8-3.

Village and Small Industries—Achievements in 1983-84

Sector	Unit	Production (Value in Rs. crores) Estimates	Exports (Value in Rs. crores) Estimates	Employment Coverage (Lakh Persons) Estimates
1	2	3	4	5
A. Traditional Industries				
1. Khadi	Million Sq. Metres	127.29	—	14.69
	Value	168.01	—	
2. Village Industries	Value	694.30	—	21.56
3. Handlooms (Cloth)	Million Metres Value	3400 2720.00	350.00	70.50
4. Sericulture (Raw Silk)	Lakh Kgs. Value	64.23 301.00	111.67	19.00
5. Handicrafts	Value	3250	1670	26.10
6. Coir (Fibre)	Lakh tonnes Value	1.75 117.00	24.34	5.75
Sub-total Value (A)		7250.31	2156.01	157.60
B. Modern Small Scale Industries				
7. Small Scale Industries	Value	41620	2159	84.15
8. Powerlooms (cloth)	Million Metres Value	4432 5774		31.00
Sub-total Value (B)		47394	2159	115.15
Total Value (A) + (B)		54644.31	4315	272.75

Village and Small Industries : Annual Plan 1985-86 Targets and Achievements

Sl. Industry No. Product	Unit	Production (Value in Rs. crores)			Exports (Rs. crores)			Employment Coverage (Lakh persons)				
		1984-85		1985-86	1984-85		1985-86	1984-85		1985-86		
		Target	Anticipated Achievement	Target	Target	Anticipated Achievement	Target	Target	Anticipated Achievement	Target		
1	2	3	4	5	6	7	8	9	10	11	12	
A. Traditional Industries												
1. Khadi (cloth)	Million Sq. Metres Value	155.98	127.82	133.00						16.00	14.58	16.00
2. Village Industries Value		200.00	170.00	208.00	3.65	3.65				23.36	22.41	24.10
3. Handlooms (cloth)	Million Metres Value	3700.00	3600.00	3870.00								
		2220.00	2880.00	3096.00	481.00	348.86	368.00	78.94	74.66	80.00		
4. Sericulture (Raw Silk)	Lakh Kgs. Value	67.54	67.54	76.00								
		310.00	316.57	355.60	100.00	129.05	140.00	21.50	20.00	20.50		
5. Handicrafts	Value	3500.00	3500.00	3815.00	1785.00	1700.00	1896.00	27.40	27.40	28.90		
6. Coir (Fibre)	Lakh Tonnes Value	1.78	1.49	1.83								
		120.00	100.50	139.51	30.00	26.00	28.00	7.78	5.90	6.50		
Sub-Total (A)		7150.00	7725.63	8489.11	2399.65	2207.56	2432.00	174.98	164.95	176.00		
B. Modern Small Scale Industries												
7. Small Scale Industries	Value	45000.00	50520.00	55225.00	2500.00	2350.00	2630.00	89.00	90.00	95.00		
8. Powerlooms (cloth)	Million Metres Value	4500.00	4930.00	5400.00								
		5860.00	6423.00	7020.00				31.19	32.19	35.32		
Sub-Total (B)		50860.00	56943.00	62245.00	2500.00	2350.00	2630.00	120.19	122.19	130.32		
Total (A)+(B)		58010.00	64668.63	70734.11	4899.65	4557.56	5062.00	295.17	287.14	306.32		

Village & Small Industries Plan Outlays and Expenditure

(Rs. crores)

Sub-Sector	1983-84 Actual Expenditure			1984-85 Revised Outlay			1985-86 Approved outlay		
	Centre	States/ UTs	Total	Centre	States & UTs	Total	Centre	States/ UTs	Total
	1	2	3	4	5	6	7	8	9
1. Khadi & Village Industries	113.15	9.69	122.84	135.00	14.46	149.46	115.42	15.70	131.12
2. Handlooms	20.24	51.38	71.62	30.02	62.41	92.43	30.36	52.61	82.97
3. Sericulture	9.62	27.98	37.60	13.45	33.49	46.94	17.54	43.15	60.69
4. Handicrafts	8.24	8.66	16.90	10.70	11.53	22.23	11.85	9.90	21.75
5. Coir	3.00	2.67	5.67	3.50	4.03	7.53	3.50	2.36	5.86
6. Small Scale Industries	39.65	106.49	146.14	199.93	107.27	307.20	134.08	111.37	245.45
7. Powerlooms	0.17	1.66	1.83	0.25	1.06	1.31	0.25	1.85	2.10
Total :	194.07	208.53	402.60	392.85	234.25	627.10	313.00	236.94	549.94

INDUSTRY AND MINERALS

Plan Performance during 1984-85 and the Sixth Plan

The Sixth Plan 1980-85 envisaged an average annual growth rate of about 8% in industrial production during the Plan period. The actual growth rate achieved during the different years of the Plan has been uneven. After a negative growth rate of 1.4% in the base year of the Sixth Plan, the growth rate recorded in 1980-81 was 4%, which increased to 8.6% in 1981-82. The year 1982-83 witnessed a relatively lower growth rate of 3.9% followed by an increase to 5.5% in 1983-84. It is encouraging to note that the upward trend witnessed in 1983-84 continued during 1984-85. Industrial production in the first quarter of 1984-85 increased by 6.9% and showed a rise of 9% in the second quarter. There was, however, deceleration after that and the growth rate declined to 3.9% in the third quarter and again rose to 6% in the fourth quarter. The growth rate during the year 1984-85 as a whole was of the order of 6.4%. This gives an annual average of about 5.6% during the Sixth Plan period as compared to 5.7% in the Fifth Plan.

9.2. The sectoral break-up of the Index of industrial production as per Quick Index indicates that electricity generation showed an impressive increase of 12% during 1984-85. This compares very favourably with the growth rate of 7.6% recorded in 1983-84. The mining sector recorded a growth rate of 8.1% in 1984-85. Though the growth rate in this sector was higher than that of the manufacturing sector yet it was lower as compared to the growth of 11.4% achieved in 1983-84. The manufacturing sector showed a growth rate of 5.2%.

9.3. It would thus be seen that but for the sluggishness witnessed in the manufacturing sector, the overall increase in industrial production in 1984-85 would have been considerably higher. It may, however, be mentioned that the above indices do not reflect the true growth in the industrial sector because the base of the Index of industrial production still continues to be 1970. A structural change in the output of the manufacturing sector has taken place since 1970 with significant development of certain industries like electronics, petro-chemicals, etc. which were virtually non-existent in 1970 and vast changes in the levels of output in a large number of other industries. The Index does not also reflect the growth in the small scale sector which is increasing at a faster rate than the organised sector.

9.4. A detailed analysis of the growth achieved in 1984-85 in the three sectors of electricity, mining and manufacturing shows that there was a substantial increase in thermal power generation during the year. However, despite the step up in power generation, there was an acute shortage of power in the

country which affected growth in the manufacturing sector. In the mining sector, it was largely coal and petroleum which accounted for the increase in the growth rate. In the manufacturing sector, chemicals and chemical products, paper and paper products and engineering industries, particularly transport equipment, recorded relatively higher growth rates. On the other hand, food manufacturing industries (except beverages) and metal products showed a negative growth rate.

9.5 According to the provisional data available regarding the output of individual industries, it is observed that increases in output have been recorded in a wide spectrum of industries in 1984-85 over the previous year. Some of the important industries in which significant increases have been made include coal, crude oil, aluminium, cement, fertilisers, cotton yarn, vanaspati, soap, acrylic fibres, jute manufactures, drugs and formulations, newsprint, paper and paper board, textile machinery, agricultural tractors, commercial vehicles, passenger cars, railway wagons, motor cycles and scooters, PVC & VIR cables, TV receivers, electronic watches, communication equipment and computer system etc. The production has also showed an increase, though not significant, in some of the basic industries such as steel, copper, lead, basic chemicals and thermoplastics. A decline in production is, however, noticed in a few industries such as zinc, cloth in the mill sector, viscose filament yarn and tyre cord, cellulosic film and certain drugs.

9.6 The production in 1984-85, though higher than that of previous year has, however, fallen short of the targets in a number of major industries like coal, steel, sponge iron, non-ferrous metals, cement, newsprint and a few engineering industries, like, steam turbines, construction machinery, power capacitors, welding electrodes and radio receivers.

9.7 So far as the capacity build up in 1984-85 is concerned, the achievement has been broadly in accordance with the Plan targets in the case of most of the industries mentioned in Annexure 9.3 except steel, sugar and ACSR conductors. The installed capacity in a number of industries such as cotton yarn, automobile tyres, synthetic detergents, electric transformers, electric motors, domestic refrigerators, power capacitors, TV receivers, etc. has even exceeded the targets.

9.8. In order to stimulate industrial investment and growth, a number of measures towards liberalisation of industrial policy and streamlining of licensing

procedures were taken during the year. The policy regarding manufacture of tele-communication equipment which was hitherto reserved for development exclusively in the public sector and is included in Schedule 'A' of the Industrial Policy Resolution, 1956, has been relaxed and the co-operation of private enterprises has been sought in the manufacture of switching and transmission equipment for the communication sector. In order to accelerate the growth of computer industry in the country, a liberalised policy for computers was announced in November, 1984. The main objective of the revised policy is to enable manufacture of computers based on the latest technology, at prices comparable with international levels and progressive indigenisation consistent with economic viability; to simplify existing procedures to enable users to obtain computers suiting to their requirements, either from indigenous sources or from overseas sources, mainly regulated through fiscal measures; and to promote appropriate application of computers which are of development catalysing nature with due regard to long term benefit of computerisation to the country as a whole. The revised policy contained a new package of incentives such as a sharp reduction in the rates of duty on imports of components and raw materials. A new electronics policy, which aims at achieving production worth Rs. 10,000 crores by 1989-90 and making available electronic goods at near international prices was also announced. Under this policy, the development of electronics has been thrown open to F.E.R.A. companies in respect of establishing manufacturing facilities for electronic components, materials, etc.

9.9. In order to ensure optimum utilisation of manufacturing capacities and with a view to encouraging a larger volume of production of automobiles, 'broad banding' of automobiles into generic classification of 'four-wheelers' and 'two-wheelers' has been made for the purpose of licensing. This measure is intended to enable the manufacturers to change their product mix rapidly to match changes in demand pattern by diversification of their product range without any procedural delays. Substantial customs duty concession were granted for import of critical components of fuel efficient vehicles to stimulate technology upgradation and conservation of energy. Subsequently, 'broad-banding' has been extended to a wide range of industrial machinery, earth moving machinery, agricultural machinery, automobile ancillaries, diesel engines, railway wagons and coaches, steel pipes and tubes, paper and pulp industry, synthetic fibres etc.

9.10. In order to expedite the endorsement of enhanced capacities under the Scheme of Re-endorsement of Capacities announced in 1982, a simplified procedure has been laid down. The procedure for providing Central assistance to the States for development of infrastructural facilities in 'no industry districts' has also been finalised. Keeping in view the

tentative projected requirement of additional spinning capacity during the Seventh Plan and the letters of intent/licences already issued, it has been decided to bring the spinning mill industry within the licensing regulations. A new textile policy has also been announced by the Government in June, 1985. The committee appointed by the Government to examine the principles of a possible shift from physical to financial control submitted its final report. Based on the recommendations of the committee, a number of measures have already been initiated by the Government.

9.11. With a view to effectively check and prevent air, water and soil pollution arising out of industrial projects, 18 industries involving high pollution have been identified for a stricter enforcement of anti-pollution measures.

Annual Plan 1985-86

9.12. The Annual Plan for 1985-86, which is the first year of the Seventh Plan, has been prepared keeping in view the objectives and strategy of development envisaged in the Seventh Plan as outlined in the Approach Paper. Great emphasis has been laid in the Plan on improving the performance of the public sector undertakings with focus on upgradation of technology, modernisation, better utilisation of assets and increase in productivity.

9.13. The strategy of development adopted in the Plan for 1985-86 is that maximum benefit should be derived from the investments already made rather than take up new projects. With this end in view and within the availability of resources, substantial provisions have been included in the Plan for the on-going projects so that these are completed according to schedule. Simultaneously, adequate emphasis has been placed and suitable financial provisions included in the Plan for modernisation, renewals and replacements and balancing equipment so as to maximise production from the installed capacity and thereby increase productivity of the existing assets and quality of products. In view of the thrust proposed to be given in the Seventh Plan to science and technology, specific outlays have been provided for science and technology schemes. Due to the large commitments for on-going projects and paucity of resources, an extremely selective approach has been followed towards new starts. However, taking into account the long term requirements and the need to make timely entry into areas of future growth i.e. the so-called 'sunrise industries' provisions have been included in the Plan for new starts in thrust areas like electronics. On these considerations, some of the capital intensive projects approved earlier for implementation had to be deferred.

9.14. An outlay of Rs. 7857* crores has been provided in the Central sector for large and medium industrial and mineral projects, including coal and petroleum. The outlay in the Central sector, excluding

*Subsequently, supplementary provisions of Rs. 485 crores and Rs. 290 crores have been made for Vishakhapatnam Steel Plant & National Aluminium Company respectively.

coal and petroleum, which form a part of the energy sector of the Plan, amounts to Rs. 3672 crores. This is approximately of the same order as the provision made in the Annual Plan for 1984-85. The details of outlays provided for the Central Ministries along with the scheme-wise break-up are given at Annexure-9.1. In view of the priority attached to augmentation of infrastructure and increasing production of basic industries, more than 80% of the outlay is accounted for by petroleum, coal, steel, fertilisers and non-ferrous metals which are in the core sector.

9.15. The outlays provided for important industries are indicated below :—

Industry	Outlay for 1985-86	
	(Rs.)	(crores)
Petroleum		3,085
Coal & Lignite		1,102
Iron & Steel		925*
Fertilisers		783
Non-ferrous metals		568**
Petro-chemicals		156
Paper & Newsprint		86
Cement		83
Textiles		42
Drugs & Pharmaceuticals		19

*Subsequently a supplementary provision of Rs 485 crores has been made for Veshakhapatnam Steel Plant.

**Subsequently a supplementary provision of Rs. 290 crores has been made for National Aluminium Company.

9.16. An outlay of Rs. 403.22 crores has been provided for industrial and mineral projects in the Plans of States and Union Territories, the details of which are given in Annexure-9.2. As in the past, a major part of the outlay provided for the industry and minerals sector in the Plans of States and Union Territories is towards augmenting the share capital of institutions like industrial development corporations, financial corporations, regional development corporations, etc. for financing their activities in the field of industrial promotion and setting up of industrial units in the public and joint sectors. In the discussions held with the State Governments, they have been requested to augment infrastructural facilities and to create an environment which would be conducive to industrial growth. It has further been suggested that emphasis should be placed in the Plan on increasing capacity utilisation and securing maximum benefits from the existing facilities by removal of infrastructural constraints, upgradation of technology, modernisation, improvement in productivity, etc. Extreme selectivity should be exercised in taking up new projects. Priority should be given to agro-based industries and projects based on processing of raw materials available in the concerned State. While capital intensive projects should be avoided, special attention should be given to employment oriented schemes and quick fructifying projects which will have a tangible effect on employment and production. Adequate emphasis should be placed on undertaking geological surveys and exploration activities by the concerned organisations.

9.17. The capacity and production targets for selected industries for 1985-86 along with achievements in 1983-84 and 1984-85 are detailed in Annexure-9.3.

9.18 The Budget for 1985-86 contains proposals which would provide further stimulus to investment and growth in the industrial sector. These proposals have been acclaimed by all sections of the industry and are expected to go a long way in accelerating industrial growth and production in the country. 27 industries have been exempted from the application of sections 21 and 22 of the MRTP Act which require prior approval of the Government for setting up new undertakings and expansion by MRTP companies. This liberalisation is applicable to FERA companies as well. The other measures include raising of the exemption limit of assets for MRTP companies from Rs. 20 crores to Rs. 100 crores, raising of the ceiling for small scale industries from Rs. 20 lakhs to Rs. 35 lakhs and that for ancillaries from Rs. 25 lakhs to Rs. 45 lakhs, complete delicensing of 25 groups of industries, reduction of corporate tax by 5% thereby improving the net profitability and making more internal resources available to the corporate sector for expansion and modernisation, reduction in income tax rates, extension of the tax holiday concessions for new undertakings by another 5 years, abolition of tax on interest income of banks, etc.

9.19 Measures have also been taken to facilitate mobilisation of resources from the market by the corporate sector and to reduce its dependence on public financial institutions. With a view to improving the marketability of convertible debentures of non-MRTP and non-FERA companies, the maximum interest payable by them on such issues has been raised from 13.5% to 15%. The Securities Contract (Regulations) Act, 1956 has been amended to ensure free transfer of securities of listed public companies. This measure will particularly benefit small investors spread all over the country. In order to offer wide choice to investors, certain changes have been proposed in respect of listing requirements of closely held companies. In order to diversify the market, a new instrument, namely convertible cumulative preference shares has been introduced; the guidelines in this regard have already been issued. Measures to reduce the prevailing high cost of public issues are also proposed to be taken.

9.20. The recently announced electronics policy statement ushers a new era in the development of electronics in the country, particularly after the earlier announcement of the computer policy and the concessions included in the Budget for 1985-86, wherein excise duty on 24 types of electronics components, computers and computer peripherals was removed in order to bring prices of locally manufactured electronic goods closer to international levels. In order to encourage large scale production of components, the electronic components industry was also delicensed. Another important feature of the new policy is that in order to optimally utilise the investments 'broad band' licences will be issued for 5 categories

of electronic products, namely entertainment electronic toys, computer peripherals, electronic test and measuring instruments and discrete semi-conductor devices.

9.21 The new import export policy, which would be valid for the next three years, is expected to give a further momentum to industrial production and growth. The new policy will provide easier and quicker access to imported inputs, ensure import continuity and stability and facilitate technological upgradation leading to strengthening of domestic production base, increase in exports and reduction in imports. The new system of import-export pass-book is expected to minimise delays in getting licences under the duty exemption scheme.

9.22 In order to deal with the problem of industrial sickness, apart from the steps already taken, special legislative and institutional measures are under consideration.

9.23 With increase in power generation and improvement in the infrastructure, larger availability of basic inputs like steel and cement, liberalisation of industrial licensing policy, introduction of new policies for electronics and textiles, buoyancy in the share market and an optimistic outlook on the agricultural front, it should be possible to achieve a growth rate of about 7% in industrial production during 1985-86.

9.24. The development programmes for 1985-86 for major industries are discussed in the following paragraphs :

Iron Ore

9.25 A production target of 44.6 million tonnes of iron ore, excluding 2 million tonnes of concentrates from Kudremukh Iron Ore Co. Ltd. was set for 1984-85. This comprised of 19.1 million tonnes for internal consumption and 27.5 million tonnes for exports. The actual production in the year was at 40.5 million tonnes out of which about 25 million tonnes were exported. Another 1.67 million tonnes of concentrates were produced at Kudremukh, out of which 1.57 million tonnes were exported. Although the production in 1984-85 fell short of the target, it was higher compared to the achievement in the previous year. The shortfall in relation to the target was partly due to the prevailing recession in the steel industry throughout the world and partly because of lower off-take by the indigenous steel plants.

9.26 Taking into account the domestic requirement of 19 million tonnes and anticipated export of 27.5 million tonnes, the production target for 1985-86 has been fixed at 46.5 million tonnes excluding 1.65 million tonnes of concentrates from Kudremukh Iron Ore Co.

9.27 The construction of the iron ore mine at Meghahataburu with a capacity of 4.25 million tonnes per year was completed during 1984-85, considerably behind its original schedule. The construction of fines ore handling plant at Bailadilla-5 has been delayed by

another year and it is now expected to be completed by March, 1986. There has also been slippage in the completion of the mine Bailadilla 11-C mine, which is now expected to be completed in October, 1986.

9.28 An outlay of Rs. 36 crores has been provided in the Annual Plan 1985-86 for the various projects for ferrous minerals.

Steel

9.29 The demand for steel picked up during 1984-85 after having suffered a slight set back during 1982-83 and 1983-84. The total production of saleable steel during the year was 8.82 million tonnes, which was 6.8 per cent more than that in the previous year and the stock of saleable steel with the main producers came down from 0.93 million tonnes on 1-4-1984 to 0.69 million tonnes as on 1-4-1985.

9.30 The production of saleable steel in 1984-85, however, fell short of the target by about 0.27 million tonnes. While the mini steel plants produced 1.83 million tonnes against a target of 2.0 million tonnes the production of the six integrated steel plants was 6.99 million tonnes against a target of 7.09 million tonnes. The main reasons for the shortfall in the production of integrated steel plants were inadequate supply and fluctuations in the quality of coking coal and restricted supply of electricity to the steel plants, especially at Rourkela, Bokaro & Durgapur. The production of saleable pig iron during the year was 1.22 million tonnes, which includes 0.1 MT from the secondary producers.

9.31 The demand for finished steel in 1985-86 is estimated at 11.35 million tonnes. The production target of saleable steel has been fixed at 9.74 million tonnes and the gap would be met through imports. Efforts would continue to increase production of special varieties of steel for the automotive sector, LPG cylinders, API grade steel for pipe manufacture, high tensile quality of structural steel, rails, etc.

9.32 The canalised import of steel, which was earlier controlled by the Steel Authority of India Ltd. (SAIL), has now been transferred to Minerals and Metals Trading Corporation under the Department of Commerce. This change in the administration of the import of steel is expected to improve the availability of steel to the consumers. In order to ensure easy availability of steel in the market it would be necessary to streamline the procedures for the issue of no objection certificates for imports.

9.33 The Annual Plan 1985-86 provides an outlay of Rs. 925 crores for the various schemes under the Department of Steel. Adequate provision has been made for 4 MT expansion stages of Bhilai and Bokaro and captive power plants at Durgapur, Bokaro and Rourkela. Besides, provision has been made for renewals and replacements, additions, modifications, etc. to maintain the technical health of the existing steel plants. An outlay of Rs. 16 crores has been provided for finalising the detailed engineering, firming up of the cost estimates, technical collaboration and

consultancy services etc. for the modernisation programme of Durgapur Steel Plant. For Vishakhapatnam Steel Plant, an outlay of Rs. 215 crores was originally provided in the Budget, this has since been raised to Rs. 700 crores through a supplementary grant of Rs. 300 crores, foreign credit of Rs. 85 crores and re-appropriation of Rs. 100 crores of additional internal resources from SAIL.

9.34 There have been considerable slippages in the commissioning of various projects in the steel sector. The revised commissioning schedule of the first stage of Bhilai expansion is December 1986 as against June 1985 and for the second stage July 1987 as against June 1986 envisaged last year. At Bokaro, the Cold Rolling Mill is now expected to be commissioned in September 1987 as against September 1986 envisaged last year. The additional coiling yard of Bokaro has also slipped by a year. The commissioning schedules of captive power plants at Durgapur, Bokaro and Rourkela have also suffered delay. Vigorous efforts would have to be made by the project authorities to maintain the revised schedules of commissioning of these projects.

Non-ferrous Metals

Aluminium

9.35 The production of aluminium during 1984-85 was around 276,500 tonnes as against the target of 285,000 tonnes set for the year. Although the production fell short of the target marginally, it was higher by 56,000 tonnes compared to the previous year showing an increase of about 25 per cent. It would have been still higher but for the inadequate availability of power. The overall capacity utilisation of the aluminium smelters was around 76.2 per cent in 1984-85 compared to 60.9 per cent in 1983-84. The increased production and capacity utilisation during 1984-85 was primarily because of the fact that the fourth pot line of Korba Smelter of the Bharat Aluminium Company (BALCO), which was erected in 1978 was energised during the year.

9.36 The gap between demand and supply for aluminium during 1984-85 was met through import. The actual import during the year was about 56,000 tonnes. Keeping in view the availability of power, a production target of 300,000 tonnes has been set for 1985-86.

9.37 The construction of a new mine at Gandhamardan in Orissa has been taken up by BALCO in order to make available bauxite to the Korba Smelter, as the present sources are depleting fast. BALCO has also taken up implementation of a captive power plant of 270 MW capacity at Korba. The project is expected to be completed in 1988. An outlay of Rs. 97.61 crores has been provided for various schemes of BALCO for 1985-86.

9.38 The National Aluminium Company (NALCO) is setting up an alumina/aluminium complex at Orissa comprising an alumina plant of 8 lakh tonnes per annum capacity and aluminium plant of

218,000 t.p.a. capacity. A captive power plant of 600 MW capacity is also being set up. The project is in an advanced stage of construction and is expected to be completed in 1987. An outlay of Rs. 412 crores was provided for the project in the Annual Plan 1985-86. This has since been raised to Rs. 702 crores through a supplementary grant of Rs. 290 crores.

Copper

9.39 The production of Blister Copper in 1984-85 was around 41,000 tonnes as against the target of 44,000 tonnes. While production during the year fell short of the target, it was higher by about 5650 tonnes compared to the previous year. The capacity utilisation in 1984-85 was around 86 per cent compared to 74.5 per cent during the previous year. The production of refined copper was 33,454 tonnes as against the target of 39,200 tonnes. It would have been higher but for the inadequate availability of power in Rajasthan and Bihar.

9.40 Production targets of 44,000 tonnes for Blister Copper and 42150 tonnes for refined copper have been set for 1985-86, taking into account the likely availability of power during the year. The demand for refined copper during the year has been estimated at 116,000 tonnes. The gap between demand and supply would have to be bridged by imports.

9.41 The second phase of Malanjkhand Copper Project, increasing the mine capacity from 1 million tonnes to 2 million tonnes was commissioned in June 1984. Hindustan Copper Ltd. took up installation of 2x10 MW Gas Turbine at Khetri Copper Complex to augment the captive generation capacity. The project has been completed in July 1985.

9.42 An outlay of Rs. 33.36 crores has been provided for 1985-86 for the various schemes of Hindustan Copper Ltd.

Zinc & Lead

9.43 Production of zinc in 1984-85 was 57,633 tonnes as against the target of 70,000 tonnes representing a shortfall of 12,367 tonnes. It was lower than the production in the previous year by 2567 tonnes. This was chiefly due to non-availability of power in Rajasthan and Andhra Pradesh. The production of the private sector zinc smelter in Kerala was affected due to a lock out. The overall capacity utilisation of zinc smelters remained around 60 per cent. For 1985-86 a target of production of 69,500 tonnes of zinc has been set against an estimated demand of 136,000 tonnes.

9.44 The production of lead in 1984-85 was 14,160 tonnes against the target of 24,600 tonnes. The shortfall in production was due mainly to technical problems in the expanded smelter at Vizag which affected stabilisation of production. For 1985-86, a target of production of 23,200 tonnes has been set against an estimated demand of 65,000 tonnes.

9.45 The gap in the demand and supply of lead and zinc continued to be bridged through imports. In

1984-85 about 55,000 tonnes of zinc and about 35,000 tonnes of lead were imported by M.M.T.C.

9.46 An outlay of Rs. 19.35 crores has been provided for Hindustan Zinc Ltd. for 1985-86.

Engineering Industries

9.47 The buoyancy in investments coupled with the increase in consumer demand enabled an all round significant improvement in the production of engineering industries during 1984-85. Machine tools, cement machinery, agricultural tractors, boilers, transformers, fluorescent tubes and dry cells recorded 10 to 20 per cent increase in production in 1984-85 over the previous year. The trend of sharp increase in production of two-wheelers continued and more than 17 per cent growth was recorded during the year. With Maruti Udyog Ltd. coming into regular production, the production of cars in the country increased by 56 per cent in 1984-85 over the previous year. On the other hand production of railway wagons, road rollers and paper and pulp machinery declined mainly due to lack of demand.

9.48 Over a period of time there has been an upgradation in the technological base in the engineering sector. Production facilities for equipment for 500 MW Thermal plants have been established. The first 500 MW unit manufactured in the country is to be delivered in 1985-86. For the mining sectors 85 tonnes dumpers, 24 cubic metres capacity drag lines and long wall face underground mining equipment are now indigenously manufactured. The manufacture of process platforms for off-shore oil exploration has commenced. For technological upgradation of machine tools industry, a perspective plan has been drawn up. Capability to manufacture control equipment for NC/CNC machines is being established. Energy conservation in road transport, the largest oil consuming sector of the economy, is being realised through technology upgradation in the automobile industry.

9.49 The capital goods sector has been able to support substantial expansion in vital sectors of the economy. The supply of heavy electrical equipment has enabled an increase of 3080 MW power generation capacity in 1984-85. The demand for coal mining equipment and steel plant equipment has been fulfilled largely through indigenous production. The share of imports in meeting the equipment requirements for oil exploration and production has shown a decline with the contribution from the domestic manufacturers.

9.50 The output of manufacturing units under the Department of Heavy Industry increased from Rs. 2258 crores in 1983-84 to Rs. 2680 crores in 1984-85. The Annual Plan 1985-86 envisages a growth of 24 per cent in the production of these units.

9.51 An encouraging feature of the heavy engineering units in the public sector is the improvement in their profitability. A number of undertakings such as Bharat Heavy Electricals Limited, H.M.T. and Lagan Jute Co. Ltd., would be able to finance their capital investments in 1985-86 entirely from their internal

resources and extra-budgetary resources and would not need any budgetary support from the Government.

9.52 The Annual Plan 1985-86 provides an outlay of Rs. 219 crores for the engineering units and schemes under the Department of Heavy Industry. Besides the completion of the continuing schemes, the thrust is on modernisation of production facilities. New products incorporating higher technology are being taken up with marginal additions to the existing facilities. The leading public sector units are placing a renewed emphasis on science and technology programmes.

Ship Building and Ship Repair Industry

9.53 The performance of Hindustan Shipyard Ltd. during 1984-85 showed considerable improvement compared to the past four years of the Plan. It is expected that the capacity utilisation of the Shipyard would be around 93 per cent in 1984-85. The delivery of ships is anticipated at 69,000 GRT during 1984-85 and production at 39,000 GT. The expansion programme of the yard is expected to be fully completed by March 1986. The production target for 1985-86 is 62,757 GRT, which represents a quantum jump over the performance in 1984-85. It would be possible to achieve the above production target by utilising the facilities already installed for the expansion programme.

9.54 The output from Cochin Shipyard Ltd (CSL) during 1984-85 was 58510 DWT against the capacity of 150,000 DWT. The capacity utilisation in this Yard remained very low throughout the Sixth Plan period. The target for 1985-86 is 53,700 DWT which is lower than even the actuals for 1984-85. Long term plan for overcoming the problems being faced by the shipyard needs to be drawn up and implemented.

9.55 An outlay of Rs. 26 crores has been provided in the Annual Plan 1985-86, of which Rs. 13 crores is for the stage-II development programme of HSL for expanding the capacity of the yard to 6.5/7 ships of 21,000 DWT/annum.

Fertilisers

9.56 The installed capacity for the production of fertilisers at the end of 1984-85 excluding Thal Vaishet was 5.20 million tonnes of nitrogen and 1.34 million tonnes of P_2O_5 . The fertiliser project being set up by Rashtriya Chemicals & Fertilisers Ltd. at Thal Vaishet was commissioned during the year. Commercial production from the first phase commenced with effect from 1-3-1985 and that from the second phase in April 1985. The commercial production from Haldi plant could not be started because of major equipment failure and break downs. The plant is now expected to start production during 1985-86. The other projects under implementation are Namruo-III, and Paradeep in the public sector, Hazira and Aonla in the co-operative sector & Hindustan Lever (Haldia), Mangalore Chemicals and Fertilisers, Zuari Agro Chemical, Godavari Fertilisers (Kakinada) and

Gujarat State Fertiliser Company in the private sector. Of the six fertiliser projects based on gas from South Bassein, starts were made on three plants during 1984-85. These are National Fertilisers Ltd.'s plant at Bijapur (M.P.), IFFCO's plant at Aonla (U.P.) and PICUP's plant at Jagdishpur (U.P.). The remaining three projects are to be set up at Sawai Madhopur (Rajasthan), Babrala (U.P.) and Shahjahanpur (U.P.) by M/s. Zuari Agro Chemicals Ltd., M/s. Tatas and M/s. Caparo respectively. The preparatory work is under way for the sixth project proposed to be set up at Shahjahanpur. These plants would together account for a capacity of over two million tonnes of Nitrogen.

9.57 The production of nitrogenous fertilisers increased from 3.48 million tonnes in 1983-84 to 3.92 million tonnes in 1984-85 and that of phosphatic fertilisers from 1.05 million tonnes in 1983-84 to 1.26 million tonnes in 1984-85. The production in both cases was slightly higher than the targets set for the year. The production would have been still higher had there been no slippage in the commissioning of the fertiliser plants being set up at Paradeep and Namrup-III. Both these projects are now likely to be commissioned in the first half of 1986.

9.58 The capacity and production targets for fertilisers for 1985-86 have been set at 5.96 million tonnes and 4.4 million tonnes of nitrogen and 1.61 million tonnes and 1.3 million tonnes of P_2O_5 respectively.

9.59 The Annual Plan for 1985-86 provides an outlay of Rs. 543.48 crores for the various fertiliser projects under the Ministry of Chemicals and Fertilisers. A substantial provision has been made for the new fertiliser projects being set up by National Fertilisers Ltd. at Bijapur (Guna Distt.) as also for their captive power plants being set up at Panipat and Bhatinda. The Plan also includes a provision of Rs. 5 crores for providing loan assistance to the Government of Madhya Pradesh for water supply scheme for Bijapur project and Rs. 2 crores for the fertiliser development programme to be implemented under Indo-EEC agreement.

9.60 In addition, an outlay of Rs. 240 crores has been provided in the Plan for the two fertiliser projects being set up in the co-operative sector. The Hazira project which comprises two ammonia plants (1350 tonnes per day each) and four urea plants (1100 tonnes per day each) has nearly been completed. The commercial production from phase-I is expected to be started in March, 1986 and that from phase-II in September, 1986 (subject to availability of adequate gas). The pipelines connecting Bombay High to Hazira from South Bassein has been completed and supply of gas commenced. The other project being set up at Aonla (U.P.) by IFFCO comprises of one 1350 tonnes per day ammonia plant and two 1100 tonnes per day urea plants. The project is estimated to cost Rs. 654.36 crores and has already been taken up for implementation. The basic design work has progressed well and activities relating to procurement of equipment and levelling and development of site have started. The project is scheduled to be completed by October, 1987 and com-

mercial production would start from March, 1988. Although there has been some delay in commencing work on the Hazira-Bijapur-Jagdishpur (HBJ) gas pipeline, it would not affect the commissioning of the fertilizer plants if it is completed upto Aonla by October, 1987.

Petrochemicals

9.61 The production of Nylon Tyre Cord/Industrial Yarn, Polyester Filament Yarn, Acrylic Fibre, Acrylonitrile, HDPE, DMT and PVC in 1984-85 registered an increase over the previous year. The targets have been exceeded in the case of HDPE, PP, Detergent alkylate, NTC, NIY, PFY and AF.

9.62 The PVC plant of M/s. Indian Petrochemicals Corporation (IPCL) and DMT plant of Bombay Dyeing were commissioned in 1984-85. DMT and Xylene plants of Bongaigaon Refinery and Petrochemicals Ltd. (BRPL) have started commercial production in September, 1985. The Aromatics recovery facilities project of Bharat Petroleum Corporation Ltd. has been completed in April, 1985 and is under trial run.

9.63 The Government has approved Maharashtra Gas Crackers Complex and Benzene Recovery facilities project of Cochin Refineries Ltd. These projects are likely to be commissioned towards the end of the Seventh Plan. The Polyester Staple Fibre Project of BRPL is expected to be commissioned in 1987.

Other Chemicals

9.64 The production of Caustic Soda in 1984-85 was marginally higher than the target while that of Soda Ash was marginally lower than the target. The target fixed for these items for 1985-86 envisage no increase in capacity but a slight increase in production. In the case of pesticides, the production in 1984-85 was lower than the target for BHC, DDT and Malathion. No addition to the capacity is envisaged for pesticides in 1985-86.

Cement

9.65 Against the Sixth Plan target of 43 million tonnes the installed capacity at the end of 1984-85 was 42.8 million tonnes. A capacity of 5.9 million tonnes was added during 1984-85. The production of cement has increased over the years and reached 30.17 million tonnes during 1984-85 as against 27 million tonnes in 1983-84. However, the production achieved during 1984-85 was much below the target of 32.5 million tonnes set in the Annual Plan for that year. The main bottleneck was inadequate availability of power to the factories in the major cement producing States. The cement manufacturing units have been advised to instal captive power plants to meet about 40% of their power requirements. It is reported that captive generating sets—diesel as well as thermal to the tune of 250 M.W.—have already been installed and a further capacity of about 145 M.W. is in the pipeline.

9.66 The policy of partial de-control of cement, which was introduced in February, 1982, has led to

a step up in investment in the cement industry and increased production by the cement units.

9.67 It is expected that the installed capacity at the end of 1985-86 would be 45 million tonnes. Taking into account the availability of power, production in 1985-86 is anticipated at 34 million tonnes.

9.68 The installed capacity of the nine units of the Cement Corporation of India is 2.72 million tonnes. The Corporation is presently implementing 3 one million tonnes project at Tandur, Nayagaon and Yeraguntla. Against the target of production of 2.56 million tonnes for 1984-85, the production during the year was at 2.17 million tonnes. The shortfall was mainly on account of lack of power, labour strike and repair of certain machinery. For 1985-86, a production target of 2.36 million tonnes has been fixed taking into account the shut down in Kurkunta Plant and rehabilitation work at Charkhi Dadri Unit. The Tandur (Andhra Pradesh) plant is expected to be mechanically completed by December 1985. The Annual Plan 1985-86 provides an outlay of Rs. 83 crores for the various projects of the Cement Corporation of India.

Cotton Textiles

9.69 The cotton textile industry has been facing a severe crisis because of a sharp increase in the price of raw cotton and poor off-take. However, the production of spun yarn during the year 1984-85, exceeded the target of 1375 million Kgs. and reached a level of 1392 million Kgs. as against an achievement of about 1345 million Kgs. in 1983-84. The capacity at the end of 1984-85 is estimated at 24.2 million spindles which exceeded the target by 0.7 million spindles. However, the production of cloth in the mill sector was 3420 million metres against 3933 million metres achieved during the year 1983-84. The handloom and powerloom sector. Produced 8530 million metres during the year. Thus the total production from all sectors was 11,950 million metres during 1984-85, as against 11,957 million metres in 1983-84.

9.70 The delicensing of spinning capacity has now been done away with due to sufficient capacity having been created in the industry. As against the Sixth Plan target of 22.8 million spindles, the installed capacity is estimated at 24.2 million spindles at the end of 1984-85. There is, therefore, little justification to allow further expansion of the spinning capacity.

9.71 In order to boost exports, the customs duty on imports of sophisticated machinery has been reduced to 20 per cent. Further the period of export obligation has been brought down from 8 years to 5 years and the quantum of export obligation from 95% to 75% of the production. A high level expert committee under the Chairmanship of Secretary, Textiles was constituted to review the present situation of the textile industry and recommend necessary changes in the policy to revitalise the industry. In the light of the recommendations made by the Committee, a

new textile policy was announced on 6th June, 1985. The new policy underlines the vital role of the textile industry from the point of view of overall output and employment in the industrial sector. Its main objective is to increase the production of cloth and its availability to weaker sections at reasonable prices.

9.72 The production of cotton during 1983-84 was 74 lakh bales against the target of 82.85 lakh bales, mainly due to widespread drought in some cotton growing areas and disease affecting crops in the northern states of the country. This, along with the carry over stocks from the previous year, amounted to about 103 lakh bales which was insufficient to meet the requirements of raw materials particularly of required varieties leading to sharp rise in prices. In 1984-85 there was a record production of 101.5 lakh bales of cotton. With the arrival of the new crop in the market, the prices of cotton have shown a significant downward trend.

9.73 Substantial benefits by way of excise duty concessions given during the year 1984-85 did not stimulate demand to the desired extent. In pursuance of the new textile policy, the excise duty on polyester staple fibre has been brought down from Rs. 45 per kg. to Rs. 25 per kg. The excise duty on polyester/cotton and polyester/viscose blended yarn has also been reduced to stimulate demand for sustained growth of the industry. Some more incentives have been provided in the Budget for 1985-86. The unprocessed cotton fabrics have been fully exempted from duty.

9.74 The controlled cloth scheme to provide cloth at relatively cheaper rates to the vulnerable section of the society continues. In addition, N.T.C. was also allowed to produce Polyester/cotton blended shirting under the controlled cloth scheme. N.T.C. has been manufacturing about 8 million metres of such shirting to be sold at Rs. 10.50 per metre to the weaker section of the population. The subsidy of Rs. 2 per metre on sarees and dhoties produced by N.T.C. has also been extended to the handloom sector, for which the subsidy allowed earlier was Rs. 1.5 per metre.

9.75 The production of N.T.C. mills in 1984-85 was 920 million metres of cloth against the target of 1000 million metres and that of market yarn 75 million Kgs. against the target of 92 million Kgs. The Annual Plan 1985-86 has provided an outlay of Rs. 25 crores for modernisation and rationalisation of excess work force in the N.T.C. mills. The Corporation has at present 125 mills under its control, of which 103 are nationalised and the remaining 22 are under its management. These mills have a total capacity of about 4.16 million spindles and more than 60,000 looms. The target of production for 1985-86 is 97.7 million Kgs. of market yarn and 1034 million metres of cloth.

9.76 The activities of the cooperative research associations have been closely monitored for effective utilisation of the results achieved through scientific research. The Associations have been actively involved in the various committees set up by the Government. A large number of thrust areas have been identified by the sub-group on science and technology

for the textile industry for the Seventh Plan. Effective steps will be required to take up research projects in these areas and disseminate the same for the benefit of the industry

Jute Textiles

9.77 The jute industry has been facing significant shortages of raw materials for the last three years resulting in an increase in the price of raw jute. In 1984-85 there was a record production of 85 lakh bales of jute and consequential fall in prices.

9.78 The production of jute goods during 1984-85, was 13.68 lakh tonnes as against 11 lakh tonnes in 1983-84. The contribution of the six nationalised jute mills under the National Jute Manufactures Corporation (NJMC) in the total production in 1984-85 was 1.3 lakh tonnes. There was also a buoyancy in the exports due to changes in policies of the importing countries. The value of export of jute manufactures during 1984-85 was about Rs. 300 crores as compared to Rs. 200 crores during the previous year. This was partly due to higher unit value realisation from the jute goods.

9.79 Recognising the importance of maintaining the technological health of the nationalised jute mills, plans for modernising them have been drawn up and are being implemented. In 1985-86 a provision of Rs. 5 crores has been made for this purpose.

9.80 The research and development activities for the jute industry are being consolidated. The benefits of results achieved in different fields will be passed on to the industry so as to promote reduction in the cost of production, diversification of products, improvement in quality etc. The Indian Jute Industry Research Association has proposed to take up a UNDP aided project for development of diversified end uses of jute goods.

Paper and Paper Board

9.81 The capacity for paper and paper board increased from 21.6 lakh tonnes in 1983-84 to 24 lakh tonnes in 1984-85. The increase in capacity was achieved primarily through establishment of small paper mills based on non-conventional raw materials.

9.82 The production during the year also increased to 13.61 lakh tonnes from 12.45 lakh tonnes in 1983-84. The paper industry, which was passing through a period of recession earlier, showed sign of revival in terms of higher production and better capacity utilisation.

9.83 The capacity in 1985-86 is expected to increase to about 25.5 lakh tonnes. The increase in capacity is to be achieved mainly through commissioning of the Nowgong Pulp and Paper Project with an annual capacity of 1 lakh tonnes in the public sector. The targets of production during for 1985-86 has been fixed at 14.25 tonnes,

Newsprint

9.84 The capacity of the newsprint industry increased from 2.3 lakh tonnes in 1983-84 to 2.8 lakh tonnes in 1984-85 with the commissioning of the first bagasse based newsprint project of M/s. Tamil Nadu Newsprint and Paper Ltd. with a capacity of 50,000 tonnes of newsprint and 40,000 tonnes of writing and printing paper per annum. The production increased from 1.7 lakh tonnes in 1983-84 to 2.0 lakh tonnes in 1984-85 falling somewhat short of the target of 2.25 lakh tonnes fixed for the year.

9.85 During 1985-86, no further increase in the capacity of the industry is envisaged. The production of newsprint is expected to reach a level of 2.3 lakh tonnes on account of better utilisation of capacity at Hindustan Newsprint Ltd. and Mysore Paper Mill, coupled with additional production from the Tamil Nadu Newsprint Project.

Sugar

9.86 The production of sugar during the 1983-84 season (October-September) declined to 5.9 million tonnes from 8.2 million tonnes in 1982-83. There was a reduction in the area under sugarcane from 33.6 lakh hectares in 1982-83 to 31.7 lakh hectares, in 1983-84 coupled with a decrease in yield from 56.4 tonnes/hectare to 55.9 tonnes/hectare. The production of sugarcane came down from 189 million tonnes to 177 million tonnes. Sugarcane production and yield were adversely affected on account of drought condition in Maharashtra, Karnataka and Tamil Nadu. Production of sugar during the 1984-85 season was only marginally higher at 6.1 million tonnes.

9.87 The policy of partial de-control of sugar with dual pricing has been continued during the 1984-85 season. The ratio of levy and levy free sugar has been maintained at 65 : 35. Through the operation of the release mechanism, supported by imports, the price in the open market is being maintained at a reasonable level. However, the supply position has come under considerable pressure due to fall in production in two successive seasons and rise in consumption. A close watch will, therefore, have to be kept on the situation.

9.88 The scheme of incentives to new sugar factories and for expansion projects was reviewed by an Inter-Ministerial Group. Decision on it is yet to be taken.

Drugs & Pharmaceuticals

9.89 The production of bulk drugs and formulations during 1984-85 was of the order of Rs. 377 crores and Rs. 1827 crores as compared to Rs. 355 crores and Rs. 1760 crores respectively in 1983-84. This, however, fell short of the target of Rs. 500 crores for bulk drugs and Rs. 1900 crores for formulations set for the year. The shortfall in production was mainly due to shortage of raw materials, marketing constraints, machinery/equipment break downs, etc.

9.90 Keeping in view the present performance of in industry in 1984-85 the production of bulk drugs and formulations during 1985-86 is targeted at Rs. 400 crores and Rs. 1900 crores respectively.

9.91 There are 5 undertakings manufacturing drugs and formulations in the public sector; these are Indian Drugs and Pharmaceuticals Ltd., Hindustan Antibiotics Ltd., Smith Staninstreet Pharmaceuticals Ltd., Bengal Chemicals and Pharmaceuticals Ltd., and Bengal Immunity Company Ltd. Sustained efforts are needed for improving the capacity utilisation in these undertakings by introduction of appropriate cost effective technology, modernisation of plant and equipment, adoption of modern management techniques, diversification of production etc. The Annual Plan 1985-86 provides an outlay of Rs. 19.47 crores for the various programmes of these undertakings.

Vegetable Oils & Vanaspati

9.92 There has been a persistent gap between demand and domestic production of edible oils in the country which is being bridged by imports. The imported oils are sold direct to consumers through public distribution system and a part is supplied to vanaspati manufacturing units. With a view to attaining self-sufficiency, efforts are being made to increase the production of edible oils. Certain centrally sponsored schemes are being implemented for this purpose.

9.93 Against the demand of 49 lakh tonnes of edible oils during 1984-85 indigenous production was 37 lakh tonnes and about 12 lakh tonnes were imported. During 1985-86, about 51 lakh tonnes of edible oil may be required, against which, indigenous production is estimated at 39 lakh tonnes, leaving a gap of about 12 lakh tonnes to be met through imports.

9.94 The production target of 9.5 lakh tonnes for vanaspati for 1984-85 was achieved and the target for 1985-86 has been fixed at 10 lakh tonnes.

Leather Footwear Industry

9.95 The requirements of leather footwear are met fully from indigenous production and a part of the production is also exported. In 1984-85 there was a production of about 15 million pairs of leather footwear in the organised sector against a target of 16 million pairs. Manufacture of leather footwear is reserved for the small scale sector. As such the bulk of the production is in the small scale sector and the units in the organised sector are mainly producing for export purposes. Presently, enough capacity is available in the country to meet the indigenous demand as well as cater to export demand. The production target for 1985-86 for the organised sector is 20 million pairs of leather footwear.

Soaps & Synthetic Detergents

9.96 The production of toilet soap in the organised sector during 1984-85 was 2.20 lakh tonnes and the target for 1985-86 is 2.50 lakh tonnes. The produc-

tion of synthetic detergents in the organised sector during 1984-85 was 2.30 lakh tonnes and the target for 1985-86 is 3 lakh tonnes. Manufacture of laundry soap is reserved for the small scale sector.

Electronics

9.97 The year 1984-85 witnessed far reaching policy changes in the electronics sector as also a series of achievements in the implementation of the projects and programmes. Technology for telecommunication equipment is now predominantly based on electronics. The manufacturing base of telecommunication equipment is being widened with the participation from private sector units. Requisite changes in the industrial policy in regard to manufacture of telecommunication equipment have been made. A new policy on computers has been announced. The role to be fulfilled by public and private sector manufacturers has been clearly defined. A series of fiscal incentives, including investment allowance for computers manufacturing industry and software development, low level of import duty on components, as well as liberal import of technology, designs and drawings are expected to encourage computer manufacture and related services in the country. The thrust of the new electronics policy is to enable speedy induction of the latest technology in the country both by the users and the producers in the electronics sector. Large industrial houses are also expected to play a leading role in building up the nation's capability in this sector.

9.98 To assist the large number of dispersed consumer electronic equipment manufacturing units, a package scheme covering Material, Technology and Brand name (MTB) has been introduced. The bulk acquisition of basic components and a single technology stream under this scheme will promote the much needed standardisation, quality and reliability, in consumer electronics and help in reducing the costs of consumer electronic equipment. Commercial production of LSI/VLSI devices has been established. Production of 2 million devices modules and sub-systems valued at about Rs. 55 crores was achieved in 1984-85. Electronic telephone instruments proposed to be manufactured in the country shortly, will be based on indigenous pulse diallers supplied by Semi conductor Complex Ltd. (SCL). Manufacture of 8-bit micro processor devices is being taken up.

9.99 The thrust towards improving productivity in the vital sectors of the economy will require technology upgradation and introduction of electronics. Programmes have been drawn up for utilisation of electronics based systems in telephone switching, other telecommunication services, railways, banking and industrial operations. Industrial process control and instrumentation is being upgraded by incorporating micro processor based systems. In the power sector, High Voltage Direct Current Transmission technology is being introduced. An experimental H.V.D.C. line, designed and developed indigenously, will be established with know-how pooled from specialist organisations within the country.

9.100 The Annual Plan 1985-86 provides for a new project for development and production of computer

main frames. National informatics network for exchange of economic information is to be extended to the States and then to the districts. To support the rapid expansion in electronics production, a comprehensive manpower development programme will be implemented. Provision has also been made to develop and absorb the recent technologies such as fibre optics, telematics and computer networking. A project to design and develop indigenously a switching system for the electronics telephone exchange compatible with the local conditions is being implemented.

Atomic Energy Programmes

9.101 The programmes of atomic energy under the Industry & Minerals Sector aim at establishment of facilities for production of fuel, heavy water, special materials and electronic control equipment needed for nuclear power generation and development of viable technology and facilities for the application of radiation and radio isotopes in the field of industry, medicine and agriculture. Some of the units, namely, the Nuclear Fuel Complex and the Electronics Corporation of India Ltd. also meet the requirements of other sections of the economy.

9.102 There has been a substantial step up in the approved outlay for atomic energy programmes under the Industry and Minerals Sector from Rs. 171.13 crores in 1984-85 to Rs. 240 crores in 1985-86. A major part of this outlay amounting to Rs. 147 crores, is for the heavy water plants. The two heavy water plants set up at Tuticorin and Baroda are already operational. The commissioning trials of the plants at Kota and Talcher are in progress. There has been delay in the commissioning of these plants because of

some technical problems that were encountered. It is expected that these four plants would be able to make a significant contribution to the output of heavy water during 1985-86. The work on the construction of two new heavy water plants being set up at Thalvaishet (Maharashtra) and Manuguru (A.P.) is progressing according to schedule. The project at Thalvaishet is expected to go into commercial production in February 1987 and that at Manuguru in April 1988.

9.103 There has been a further slippage in the completion schedule of the Orissa Sand Complex being set up at Chhatarpur in the Ganjam District of Orissa. Both the streams of the synthetic rutile plant are now expected to be commissioned during 1985-86. Phase-I of the expansion programme of Nuclear Fuel Complex, which will cater to the fuel requirements of Narora Atomic Power Plant II, is expected to be completed by 1987.

9.104. The Electronics Corporation of India Ltd., which provides the controls and instrumentation system for the nuclear power programme, also plays an important role in the development of the electronics industry. Out of the total output of about Rs. 79 crores in 1984-85, only about 40% was accounted for by the requirements of the Department of Atomic Energy and the balance was mainly in the field of communication systems and consumer electronics. The Corporation is continuously diversifying its activities. It has been entrusted with the implementation of the project for the manufacture of computer mainframes for the large computer systems required by the Atomic Energy, Space, oil exploration and other sectors. Its total output in 1985-86 is estimated to be around Rs. 100 crores.

Outlay for Central Industrial & Mineral Projects—Annual Plan 1985-86

(Rs. crores)

Sl. No.	Ministry/Department	Budgetary Allocation	Extra-budgetary Resources	Plan Outlay
1	2	3	4	5
1.	Department of Steel	643.45	281.55	925.00*
2.	Department of Mines	249.05	385.95	635.00**
3.	Ministry of Petroleum (Petro-chemicals & Engg. Units)	43.96	132.04	176.00
4.	Ministry of Chemicals & Fertilisers	293.55	300.45	594.00
5.	Department of Agriculture & Co-op. (Fertiliser Projects)	152.71	87.29	240.00
6.	Department of Industrial Development	221.47	61.53	283.00
7.	Department of Heavy Industry	103.18	115.82	219.00
8.	Ministry of Shipping & Transport (Shipbuilding)	24.75	1.25	26.00
9.	Department of Electronics	105.60	2.40	108.00
10.	Department of Atomic Energy	239.00	1.00	240.00
11.	Department of Revenue	2.00	—	2.00
12.	Department of Economic Affairs (Mints & Presses)	45.00	—	45.00
13.	Department of Economic Affairs (Banking Division)	100.00	—	100.00
14.	Ministry of Civil Supplies	5.95	—	5.95
15.	Ministry of Commerce (excluding Plantations)	21.25	3.29	24.54
16.	Department of Textiles	31.00	11.00	42.00
17.	Department of Scientific & Industrial Research	2.30	—	2.30
18.	Department of Supply	3.00	—	3.00
19.	Department of Ocean Development	1.00	—	1.00
	Total	2288.22	1383.57	3671.79

*Subsequently a supplementary allocation of Rs.485 crores including Rs. 300 crores budgetary supports, has been made for Visakhapatnam Steel Plant

**Subsequently, a supplementary allocation of Rs. 290 crores entirely as budgetary support, has been made for National Aluminium Company.

Outlay for Central Industrial and Mineral Projects—Annual Plan 1985-86

(Detailed Statement)

		(Rs. crores)		
Sl. No.	Ministry/Department/Project	Budgetary Allocation	Extra-Budgetary Resources	Plan Outlay
1	2	3	4	5
(I) DEPARTMENT OF STEEL				
1. Steel Authority of India & Subsidiaries.				
	(i) Bhilai Steel Plant	156.74	} 275.00	254.00
	(ii) Bokaro Steel Plant	94.42		155.00
	(iii) Rourkela Steel Plant	42.98		105.00
	(iv) Durgapur Steel Plant	18.00		62.00
	(v) Alloy Steel Plant	15.55		25.00
	(vi) Central Marketing Organisation	—		8.00
	(vii) R & D Centre	10.00		10.00
	(viii) Management Training Institute & Corporate Office	1.74		1.74
	(ix) Salem Steel Plant	3.61		4.00
	(x) Indian Iron & Steel Co. and IISCO STANTON	35.20		0.80
	(xi) Visvesvaraya Iron & Steel Ltd.,	0.31	0.95	1.26
	Sub-total (SAIL)	376.25	276.75	653.00
	2. Rashtriya Ispat Nigam Ltd. (Visakhapatnam Steel Project)	215.00	—	215.00*
	3. Vijaynagar Steel Ltd.	1.00	—	1.00
	4. Neelachal Ispat Nigam Ltd. (New Steel Plant, Orissa)	1.00	—	1.00
	5. Bharat Refractories Ltd.	6.00	—	6.00
	6. Sponge Iron India Ltd.	3.20	—	3.20
	7. Metallurgical & Engineering Consultants (India) Ltd.	—	3.80	3.80
	8. Metal Scrap Trading Corpn. Ltd.	—	1.00	1.00
	9. Hindustan Steel Works Construction Ltd.	3.00	—	3.00
	10. Loan to M.P. Govt. for Mahanadi Reservoir Project.	1.00	—	1.00
	11. Loan to Bihar Govt. for Tenughat Dam Project	1.00	—	1.00
	Total (Steel) (1 to 11)	607.45	281.55	889.00
Ferrous Minerals				
	12. Kudremukh Iron Ore Co. Ltd.	11.50	—	11.50
	13. National Mineral Development Corpn.	17.37	—	17.37
	14. Manganese Ore (India) Ltd.	1.48	—	1.48
	15. Mineral Development Board	0.65	—	0.65
	16. Loan to Karnataka Govt. for road & power schemes for Kudremukh Iron Ore Project	5.00	—	5.00
	Total (Ferrous Minerals)	36.00	—	36.00
	Grand Total (Deptt. of Steel)	643.45	281.55	925.00

*Subsequently, a supplementary provisions of Rs. 483 crores including Rs. 300 crores as budgetary support has been made.

1	2	3	4	5
(II) DEPARTMENT OF MINES				
1.	Bharat Aluminium Company	97.61	—	97.61
2.	National Aluminium Company	52.00	360.00	412.00*
3.	Hindustan Copper Ltd.	33.36	—	33.36
4.	Hindustan Zinc Ltd.	—	19.35	19.35
5.	Bharat Gold Mines Ltd.	4.00	—	4.00
6.	Mineral Exploration Corpn. Ltd.	22.40	6.60	29.00
7.	Geological Survey of India	35.72	—	35.72
8.	Indian Bureau of Mines	2.33	—	2.33
9.	R & D Schemes	1.63	—	1.63
Total (Deptt. of Mines)		249.05	385.95	635.00
(III) MINISTRY OF PETROLEUM (PETRO-CHEMICALS & ENGG. UNITS)				
(A) Petro-Chemicals				
1.	Indian Petro-chemicals Corpn. Ltd.	—	87.00	87.00
2.	Bongaigaon Refinery & Petro-chemicals Ltd. (Petro-chemicals Complex)	42.93	—	42.93
3.	Hindustan Petroleum Corporation	—	2.00	2.00
4.	Bharat Petroleum Corpn. Ltd.	—	12.50	12.50
5.	Cochin Refineries Ltd.	—	8.00	8.00
6.	Petrofils Cooperative Ltd.	—	0.10	0.10
7.	Central Institute of Plastic Engineering & Tools	0.77	—	0.77
8.	Madras Refineries Ltd.	—	2.00	2.00
9.	Other Schemes	0.25	0.30	0.55
Total (A)		43.95	111.90	155.85
(B) Explosives/Engineering Units				
10.	Indo-Burmah Petroleum Co. Ltd.	—	9.11	9.11
11.	Bamer Lawrie & Co. Ltd.	—	5.53	5.53
12.	Biecco Lawrie & Co. Ltd.	0.01	—	0.01
13.	Bridge & Roof Co. Ltd.	—	5.50	5.50
Total (B)		0.01	20.14	20.15
Total (A) + (B)		43.96	132.04	176.00
(IV) MINISTRY OF CHEMICALS & FERTILIZERS				
(A) Fertilizers				
1.	Fertilizers & Chemicals Travancore Ltd.	39.00	8.00	47.00
2.	Fertilizers Corpn. of India Ltd.	11.37	—	11.37
3.	Hindustan Fertilisers Corpn. Ltd.	60.03	—	60.03
4.	National Fertilizers Ltd.	50.85	110.00	160.85
5.	Restriya Chemicals & Fertilizers Ltd.	—	130.45	130.45
6.	Project & Development (India) Ltd.	5.20	—	5.20
7.	Pyrites, Phosphates & Chemicals Ltd.	4.32	—	4.32
8.	Paradeep Phosphates Ltd.	70.00	30.00	100.00
9.	Madras Fertilizers Ltd.	—	10.00	10.00
10.	<i>Other Schemes</i>			
	(i) Grant for Fert. Development Programme	4.50	—	4.50
	(ii) Loan to Govt. of Madhya Pradesh for water supply to Bijaipur Project	5.00	—	5.00
	(iii) National Institute of Fertilizer Technology	0.01	—	0.01
	(iv) Grant to PDIL	2.75	—	2.75
	(v) Indo EEC Fert. Dev. Programme	2.00	—	2.00
Total (Fertilizers)		255.03	288.45	543.48

*Subsequently a supplementary provision of Rs. 290 crores, entirely as budgetary support has been made.

1	2	3	4	5
(B) Chemicals & Pesticides				
11.	Hindustan Organic Chemicals Ltd.	18.75	8.00	26.75
12.	Hindustan Insecticides Ltd.	2.30	2.00	4.30
	Total (Chemicals & Pesticides)	21.05	10.00	31.05
(C) Drugs & Pharmaceuticals				
13.	Indian Drugs & Pharmaceuticals Ltd.	4.62	—	4.62
14.	Hindustan Antibiotics Ltd.	4.65	2.00	6.65
15.	Smith Stanistreet Pharmaceuticals Ltd.	1.10	—	1.10
16.	Bengal Chemicals & Pharmaceuticals	2.50	—	2.50
17.	Bengal Immunity Co. Ltd.	3.50	—	3.50
18.	<i>Other Schemes</i>			
	(i) Pharmaceutical Ind. Centre	1.10	—	1.10
	(ii) Expn. Penicillin Capacity	0.50	—	0.50
	(iii) Measles Vaccine Project	0.50	—	0.50
	Total (Drugs).	17.47	2.00	19.47
	Total (Ministry of C&F)	293.55	300.45	594.00
(V) DEPARTMENT OF AGRICULTURE & COOPERATION				
1.	KRIBHCO (Hazira Fertiliser Project)	122.71	77.29	200.00
2.	IFFCO (Aonla Fertiliser Project)	30.00	10.00	40.00
	Total	152.71	87.29	240.00
(VI) DEPARTMENT OF INDUSTRIAL DEVELOPMENT				
1.	Cement Corporation of India	27.00	56.00	83.00
2.	Hindustan Paper Corporation	70.35	—	70.35
3.	NEPA Mills	15.50	—	15.50
4.	Bharat Ophthalmic Glass Ltd.	1.85	—	1.85
5.	Tannery & Footwear Corpn.	0.65	—	0.65
6.	Hindustan Photo Films Mfg. Co. Ltd.	0.80	1.20	2.00
7.	National Productivity Council.	1.20	—	1.20
8.	Hindustan Salts Ltd.	0.50	—	0.50
9.	National Institute of Design	1.10	—	1.10
10.	Patent Information Service	0.30	—	0.30
11.	Subsidy to Backward Areas	60.00	—	60.00
12.	Bharat Leather Corporation	2.00	—	2.00
13.	Instrumentation Ltd.	6.77	—	6.77
14.	Hindustan Cables Ltd.	26.60	2.20	28.80
15.	National Instruments Ltd.	1.50	—	1.50
16.	Cycle Corporation of India	1.00	—	1.00
17.	National Bicycle Corpn. of India	1.00	—	1.00
18.	Tyre Corporation of India	1.00	—	1.00
19.	Andrew Yule & Co.	—	2.13	2.13
20.	Grants to Research Associations and Institutions	7.75	—	0.75
21.	B.I.C.P.	0.60	—	0.60
22.	S. & T. (Central Paper Research Institute)	1.00	—	1.00
	Total	221.47	61.53	283.00

1	2	3	4	5
(VII) DEPARTMENT OF HEAVY INDUSTRY				
1.	Bharat Heavy Electricals Ltd.	—	58.00	58.00
2.	HMT Ltd.	—	50.50	50.00
3.	Heavy Engineering Corpn.	9.00	—	9.00
4.	Bharat Heavy Plates & Vessels	6.00	—	6.00
5.	Mining & Allied Machinery Corpn.	3.00	—	3.00
6.	Bharat Pumps & Compressors Ltd.	4.00	—	4.00
7.	Braithwaite & Co. Ltd.	2.50	—	2.50
8.	Bharat Breaks & Valves Ltd.	1.00	—	1.00
9.	Bharat Processes & Mechanical Engg. Ltd.	0.65	—	0.65
10.	Bharat Wagon & Engg. Co. Ltd.	1.50	—	1.50
11.	Tungabhadra Steel Products Ltd.	0.90	—	0.90
12.	Richardson & Cruddas Ltd.	1.00	—	1.00
13.	Triveni Structural's Ltd.	1.00	—	1.00
14.	Burn Standard Co. Ltd.	10.39	—	10.39
15.	Jessop & Co. Ltd.	3.00	—	3.00
16.	Scooters India Ltd.	1.00	—	1.00
17.	Maruiti Udyog Ltd.	49.77	5.23	55.00
18.	Automotive Research Association of India	1.68	1.32	3.00
19.	Central Machine Tools Indtitute	2.00	—	2.00
20.	Lagan Jute	—	1.27	1.27
21.	Engineering Projects India Ltd.	0.05	—	0.05
22.	High Voltage Direct Current Project	4.00	—	4.00
23.	Energy Conservation Study (NPC)	0.04	—	0.04
24.	Hooghly Dock & Port Engineers Ltd.	0.70	—	0.70
Total		103.18	115.82	219.00
(VIII) MINISTRY OF SHIPPING & TRANSPORT (Ship Building & Ship Repair Programme)				
1.	Hindustan Shipyard Ltd.	19.10	—	19.10
2.	Ship Repair facilities	2.50	1.25	3.75
3.	Cochin Shipyard Ltd.	2.85	—	2.85
4.	Others	0.30	—	0.30
Total		24.75	1.25	26.00
(IX) DEPARTMENT OF ELECTRONICS				
(A) Corporations				
1.	Electronics Trade & Technology Development Corporation	1.00	2.40	3.40
2.	C. M.C. Ltd.	5.00	—	5.00
3.	Semi Conductor Complex Ltd.	9.60	—	9.60
Sub-Total (A)		15.60	2.40	18.00
(B) Societies				
4.	Society for Applied Microwave Electronics Engineering & Research	2.30	—	2.30
5.	Centre for Development of Telematics	7.20	—	7.20
6.	National Centre for Software Development & Computer Techniques	2.50	—	2.50
Sub-total (A)		12.00	—	12.00

1	2	3	4	5
(C) Departmental Projects				
7.	Radar Systems and Consultancy	0.50	—	0.50
8.	EMI/EMC & Reliability Studies	2.00	—	2.00
9.	Headquarters	1.50	—	1.50
10.	Special Components & Material Programme	0.80	—	0.80
11.	National Silicon Facility	5.45	—	5.45
12.	Systems Engineering including Defence Project	2.00	—	2.00
13.	Standardisation Testing & Quality Control Programme	4.50	—	4.50
14.	Special Manpower Division Social Electronics and CEDT	4.00	—	4.00
15.	Development Amateur Radio Activities	0.05	—	0.05
16.	Electronics Component Development Fund	0.10	—	0.10
17.	Centre for R & D and Production of Power Semi-Conductor Devices	0.10	—	0.10
18.	Computer Literacy and Studies in Schools (Class)	4.00	—	4.00
Sub-Total (C)		25.00	—	25.00
(D) Computer Communication and Instrumentation Schemes				
19.	National Informatics Centre	18.00	—	18.00
20.	Computer Centre Programme	2.00	—	2.00
21.	Software Development Programme	2.00	—	2.00
22.	Centre for Development Production of Computer Mainframes	10.00	—	10.00
23.	Fibre Optics Applications Programme	1.00	—	1.00
24.	Generation of Special Manpower for Computers	3.50	—	3.50
25.	Industrial Electronics Promotion Programme	4.00	—	4.00
26.	Centre for Flexible Manufacture Technology	1.00	—	1.00
27.	National HVDC Export Line Project	2.50	—	2.50
28.	Telematics Development and Promotion Programme	1.00	—	1.00
29.	Fifth Generation Super Mini Computer Design Programme	0.30	—	0.30
30.	Advance Technology Programme in Computer Networking	0.50	—	0.50
31.	Software Export Promotion Programme	0.10	—	0.10
32.	Instrument Maintenance Programme	0.10	—	0.10
Sub-Total (D)		46.00	—	46.00
(E) Science & Technology Programmes				
33.	Technology Development Council Projects	3.00	—	3.00
34.	National Radar Council Projects	2.00	—	2.00
35.	National Micro Electronics Council Projects	2.00	—	2.00
Sub-Total (E)		7.00	—	7.00
Total (D.O.E.)		105.60	2.40	108.00
(X) DEPARTMENT OF ATOMIC ENERGY				
1.	Bhabha Atomic Research Centre	41.58	—	41.58
2.	Heavy Water Plants	151.71	—	151.71
3.	Nuclear Fuel Complex	3.68	—	3.68
4.	Atomic Minerals Division	0.94	—	0.94
5.	Indian Rare Earths Ltd.	10.54	—	10.54
6.	Electronics Corporation of India Ltd.	10.24	1.00	11.24
7.	Uranium Corporation of India Ltd.	20.31	—	20.31
Total		239.00	1.00	240.00

1	2	3	4	5
(XI) MINISTRY OF FINANCE—DEPARTMENT OF ECONOMIC AFFAIRS				
(Mints and Presses)				
1.	Indian Security Press, Nasik	6.70	—	6.70
2.	Currency Note Press, Nasik	22.00	—	22.00
3.	Bank Note Press, Dewas	5.01	—	5.01
4.	Indian Government Mints	8.84	—	8.84
5.	Security Paper Mill, Hoshangabad	2.20	—	2.20
6.	Other Schemes	0.25	—	0.25
	Total	45.00	—	45.00
(XII) MINISTRY OF FINANCE —DEPARTMENT OF ECONOMIC AFFAIRS				
(Banking Division)				
1.	Industrial Development Bank of India	46.84	—	46.84
2.	Industrial Finance Corporation of India	2.55	—	2.55
3.	Industrial Credit & Investment Corporation of India	5.61	—	5.61
4.	Industrial Reconstruction Bank of India	45.00	—	45.00
	Total	100.00	—	100.00
(XIII) MINISTRY OF FINANCE (DEPARTMENT OF REVENUE)				
1.	Project for extraction of alkaloid from opium at Ghazipur & Neemuch	2.00	—	2.00
	Total	2.00	—	2.00
(XIV) MINISTRY OF CIVIL SUPPLIES				
1.	Metric System of Weights & Measures	0.65	—	0.65
2.	Indian Standards Institution	1.58	—	1.58
3.	Measures for Consumer Production	0.10	—	0.10
4.	Development of Vegetable Oils & Vanaspati	3.62	—	3.62
	Total	5.95	—	5.95
(XV) MINISTRY OF COMMERCE				
1.	Export Inspection Council	—	0.50	0.50
2.	Export Processing Zones	17.75	—	17.75
3.	Marine Products Export Development Authority	3.50	—	3.50
4.	Mica Trading Corporation	—	2.79	2.79
	Total	21.25	3.29	24.54
(XVI) DEPARTMENT OF TEXTILES				
1.	National Textile Corporation	25.00	—	25.00
2.	National Jute Manufacturers Corporation	1.00	4.00	5.00
3.	British India Corporation	3.00	7.00	10.00
4.	S & T Programme	2.00	—	2.00
	Total	31.00	11.00	42.00
(XVII) DEPARTMENT OF SCIENTIFIC & INDUSTRIAL RESEARCH				
1.	Central Electronics Ltd.	2.30	—	2.30
	Total	2.30	—	2.30

1	2	3	4	5
(XVIII) DEPARTMENT OF SUPPLY				
1.	National Test House	2.90	—	2.90
2.	DGS & D Programmes	0.10	—	0.10
	Total	3.00	—	3.00
(XIX) DEPARTMENT OF OCEAN DEVELOPMENT				
1.	Industry & Mineral Programme	1.00	—	1.00
	Total	1.00	—	1.00
	GRAND TOTAL—I & M Sector	2287.72	1382.32	3670.04

Annual Plan (1985-86) Outlays—States / Union Territories

(Rs. lakhs)

Sl. States No.	Annual Plan (1985-86)				
	Large & Medium Industries	Mining	Weights & Measures	Total	
1	2	3	4	5	6
1. Andhra Pradesh		2400	1620	5	3025
2. Assam		1110	69	15	1194
3. Bihar		1600	500	11	2111
4. Gujarat		1300	300	24	1624
5. Haryana		296	15	6	317
6. Himachal Pradesh		300	18	3	321
7. Jammu & Kashmir		600	60	5	665
8. Karnataka		1729	218	—	1947
9. Kerala		1983	54	18	2055
10. Madhya Pradesh		1645	150	3	1798
11. Maharashtra		5400	61	—	5461
12. Manipur		130	10	2	142
13. Meghalaya		155	40	8	203
14. Nagaland		180	128	10	318
15. Orissa		1500	400	8	1908
16. Punjab		1390	4	2	1396
17. Rajasthan		895	283	—	1178
18. Sikkim		70	30	4	104
19. Tamil Nadu		2206	200	—	2406
20. Tripura		90	2	4	96
21. Uttar Pradesh		6790	570	32	7392
22. West Bengal		3960	140	16	4116
Total (States)		35729	3872	176	39777
Union Territories					
1. Andaman & Nicobar Islands		—	—	—	—
2. Arunachal Pradesh		23	2	6	31
3. Chandigarh		3	—	0.70	3.70
5. Dadra & Nagar Haveli		—	—	—	—
5. Delhi		50	160	10	220
6. Goa, Daman & Diu		170	1	5	176
7. Lakshadweep		—	1	0.50	1.50
8. Mizoram		40	1.65	4	45.65
9. Pondicherry		65	—	2	67
Total (U.Ts)		351	165.65	28.20	544.85
GRAND TOTAL		36080	4037.65	204.20	40321.85

Capacity and Production for Selected Industries—Targets for 1985-86

Sl. No.	Industry	Unit	1983-84 (Actuals)		1984-85 (Targets)		1984-85 (Anticipated/Actuals)		1985-86 Targets	
			Capacity	Production	Capacity	Production	Capacity	Production	Capacity	Production
1	2	3	4	5	6	7	8	9	10	11
MINING										
1.	Coal	M.tonnes	—	138.39	—	152.00	—	147.44	—	158.50
2.	Lignite	Do.	—	6.50	—	6.50	—	7.79	—	7.42
3.	Crude Oil	Do.	—	26.02	—	29.63	—	28.99	—	30.14
4.	Iron Ore	Do.	—	38.30	—	45.00	—	42.20	—	48.15
BASIC METALS										
5.	Hot Metal (Integrated Steel Plants)	Do.	13.23	9.12	14.15	10.20	14.33	9.24	14.33	10.72
6.	Pig Iron for Sale (Integrated Steel Plants)	Do.	2.28	1.41	2.28	1.32	2.28	1.22	2.28	1.31
7.	Steel Ingots	Do.	16.02	9.85	17.56	11.04	15.31	10.83	17.21	11.86
8.	Steel Ingot (Integrated Steel Plants)	Do.	13.06	7.92	14.56	9.04	12.31	8.29	14.11	9.76
9.	Saleable Steel	Do.	11.96	8.33	14.31	9.09	12.54	8.82	13.82	9.80
10.	Saleable Steel (Integrated Steel Plants)	Do.	9.00	6.39	11.31	7.09	9.54	6.99	10.65	7.70
11.	Alloy & Special Steels	'000 tonnes	865	750	865	800	865*	800	890*	800
12.	Sponge Iron	Do.	150	53	210	110	210	65	300	200
13.	Aluminium	Do.	362.00	220.00	362	285	362	276.5	362	300
14.	Copper (Blister)	Do.	47.50	35.27	47.5	44	47.5	41	47.5	44
15.	Copper (Refined)	Do.	39.4	29.2	42	39.2	39.4	33.45	42	42.15
16.	Zinc Ingots	Do.	92	62.21	96	70	96	57.6	96	69.5
17.	Lead Ingots	Do.	30	15.4	30	24.6	30	14.2	30	23.2
METAL PRODUCTS										
18.	Steel Castings	Do.	185	90	200	100	200	85.4	200	100
19.	Steel Forgings	Do.	270	175	300	175	300	152.9	300	190
NON-METALLIC MINERAL PRODUCTS										
20.	Cement	M. tonnes	36.9	27.06	43	32.5	42.8	30.17	45	34
21.	Refractories	'000 tonnes	—	—	1800	1250	1800	1100	—	—
22.	Petroleum Products	M. tonnes	37.80	35.26	37.80	36.81	45.55	35.56	47.90	42.14
BASIC CHEMICALS										
23.	Caustic Soda	'000 tonnes	877	647	966	670	965.6	680	965.6	700
24.	Soda Ash	Do.	901	781	1005	940	966	817	1005	934
25.	Calcium Carbide	Do.	170	96	170	111	170	111	180.45	140
26.	Industrial Oxygen	MCM	158.1	118	180	140	180	122	180	140
AGRICULTURAL CHEMICALS										
27.	Nitrogenous Fertilisers	'000 tonnes	5144	3474	5220	3750	5195	3917	5960	4415
28.	Phosphatic Fertilisers	Do.	1418	1048	1551	1125	1488	1264	1610	1319
29.	B.H.C. (in terms of 13% isomers)	Do.	41.9	32.4	41.9	33.5	41.9	28.96	41.9	45
30.	DDT	Do.	9.01	6.5	9.01	7.5	9.1	7.9	9.03	8.5
31.	Other pesticides	Do.	34.0	17.9	36.39	20.5	36.29	24	36.39	22
32.	Malathion	Do.	12.0	3.3	12.0	6.0	12.00	3.5	12.0	6

*Registered Units covered under Alloy and Special Steel Producers Association.

1	2	3	4	5	6	7	8	9	10	11
THERMO PLASTICS AND SYNTHETIC RUBBER										
33. L.D. Polyethylene	'000 tonnes	112	100	112	110	121.9	107.2	121.9	110.0	
34. H.D. Polyethylene	Do.	30	37.3	30	33	30	40.3	30	37.3	
35. Polyvinyl Chloride	Do.	86.4	64.0	140	90	139.4	79.7	140.9	120	
36. Polypropylene	Do.	30	24.3	30	26	30	27.3	30	25	
37. Polystyrene	Do.	23.5	15.3	23.5	15	26.2	15.8	26.2	16	
38. Styrene Butadiene Rubber	Do.	30	21.1	30	20	30	21.5	30	25	
39. Polybutadiene Rubber	Do.	20	11.4	20	16.6	20	16.6	20	17	
PETRO-CHEMICAL INTERMEDIATES										
40. Acrylonitrile	Do.	24	16.5	24	21	24	19.5	24	22	
41. DMT	Do.	30	25	135	52	139	27.4	139	70	
42. Caprolactam	Do.	20	15.8	20	18	20	16.3	20	18	
43. Detergent Alkylate	Do.	30	17.5	30	28	30	29.5	30	28	
44. Methanol	Do.	44.5	45.9	84.5	85	44.5	44	75	70	
45. Phenol	Do.	21.6	18.0	21.6	22	21.6	20	61.6	21	
MAN-MADE FIBRES										
46. Viscose Filament Yarn	Do.	42.38	35.00	50.00	45.00	42.38	33.1	45.00	40.00	
47. Viscose Staple Fibre	Do.	106.00	85.00	110.00	100.00	106	100.4	120.00	110.00	
48. Viscose Tyre Cord	Do.	23.00	10.00	23.00	15.00	23	7.1	23.00	10.00	
49. Nylon Filament Yarn	Do.	28.2	30.3	32	30	30	32.30	32	30	
50. Nylon Tyre Cord & Industrial Yarn	Do.	13.5	16.8	16.5	16	15.5	20.3	20	26	
51. Polyester Staple Fibre	Do.	40.4	26.4	40.4	31	36.9	36.8	42	40	
52. Polyester Filament Yarn	Do.	34.0	48.4	64.8	45	36.7	55.5	60	30	
53. Acrylic Fibre	Do.	16	16.6	16	16	16	20.8	20	18	
DRUGS AND PHARMACEUTICALS										
54. Bulk Drugs	Rs. crores	—	355	—	500	—	377	—	400	
55. Formulations	Do.	—	1760	—	1900	—	1827	—	1900	
FOOD PRODUCTS										
56. Sugar*	Mill tonnes	6.90	5.90	8.00	7.6	7.2	6.1	7.5	7.2	
57. Vanaspati	'000 tonnes	1400	890	1400	950	1400	920	1500	1000	
TEXTILES										
58. All Yarn (Cotton blended Mixed)	Cap. : Mill. spindles Production Mill Kgs.	23.3	1345	23.5	1375	24.2	1392	24.5	1425	
59. Cloth (Mill Sector)	Cap. : Lakh looms Production Mill Metres.	2.10	3933	2.11	4000	2.10	3420	2.10	4000	
60. Cloth (Decentralised Sector)	Mill. Metres	—	8024	—	8400	—	8530	—	8600	
61. Jute Manufactures	'000 tonnes	1500	1100	1500	1400	1500	1368	1500	1445	
LEATHER AND RUBBER GOODS*										
62. Leather Footwear (Org. Sector)	Mill pairs	—	—	23.67	16.00	22	15	23.00	20.00	
63. Rubber Footwear	Do.	—	—	56.23	41.00	54	35	57.00	39.00	
64. Bicycle Tyres (Org. Sector)	Mill. Nos.	34.0	32.9	34	34	34	31.5	34	32	
65. Automobile Tyres	Do.	11.45	9.56	12.00	10.50	15.2	11.5	—	—	

*Relates to Sugar Year (October-September)

1	2	3	4	5	6	7	8	9	10	11
PAPER AND PAPER PRODUCTS										
66. Paper & Paper Board	'000 tonnes		2165	1250	2400	1350	2400	1361.4	2550	1425
67. Newsprint	Do.		230	176	280	225	280	197.07	280	230
SOAPS AND DETERGENTS										
68. Soaps (Org. Sector)	Do.		—	200	—	370	270	220	300	250
69. Synthetic Detergents (Org. Sector)	Do.		275	200	300	300	335	168	350	300
INDUSTRIAL MACHINERY										
70. Machine Tools	Rs. crores		310	270	340	202	340	303	470	375
71. Mining Machinery	Do.		65	48	70	55	80	48	80	62
72. Metallurgical Machinery	Do.		—	62	—	70	—	63	—	64
73. Cement Machinery	Do.		68	45	75	50	75	54	75	60
74. Chemicals & Pharmaceuticals Machinery	Do.		175	156	180	160	180	155	250	200
75. Sugar Machinery	Do.		60	50	60	50	60	44	70	55
76. Rubbery Machinery	Do.		25	29	20	16	20	14	25	20
77. Paper & Pulp Machinery	Do.		50	24	52	30	52	20	52	26
78. Printing Machinery	Do.		22	10	25	20	25	15	25	20
79. Textile Industry	Do.		400	351	460	350	500	393	550	440
80. Boilers	Do.		550	482	550	510	1000	538	600	550
ELECTRICAL POWER EQUIPMENT										
81. Steam Turbines	MKW		4.5	2.6	4.5	3.32	4.5	2.9	4.5	3.12
82. Hydro Turbines	MKW		1.345	0.2	1.345	0.24	1.3	0.24	1.345	0.30
83. Transformers	MKVA		30	23.14	33	25	39.4	25.45	35	26
84. Electrical Motors	MHP		7	5.4	7	5.5	7.9	4.93	8	7
CONSTRUCTION MACHINERY										
85. Earth Moving equipment	Nos.		2000	1814	2300	2200	2300	1627	2300	2200
86. Road Rollers	Nos.		1800	440	1800	1000	1800	309	1800	300
AGRICULTURE MACHINERY										
87. Tractors	'000 Nos.		90	75.8	102	85	102	85	125	100
RAILWAY AND WATER TRANSPORT										
88. Diesel Locomotives	Nos.		210	152	210	145	210	140	210	157
89. Electrical Locomotives	Nos.		80	47	80	50	60	48	80	58
90. Railway coaches	„		1650	1282	1650	1284	1450	1354	1650	1282
91. Railway Wagons	„		28	17.36	28	12	28	13.0	28	12.5
92. Ship Building	'000 GRT		156	73	156	113	156	93.5	162	94.8
ROAD TRANSPORT										
93. Commercial Vehicles	'000 Nos.		100	88.4	120	106	120	96.8	130	110
94. Passenger Cars	'000 Nos.		70	47	93	78	93	74.2	140	95
95. Jeeps	Do.		30	23	30	25	30	25.2	35	30
96. Scooters, Motor Cycles Mopeds	Do.		950	779	1100	937	1100	918	1350	1075
97. Bicycles (Org. Sector)	Mill. Nos.		7	3.84	7	6	7.2	4.35	8.3	5.0
MECHANICAL COMPONENTS & CONSUMER DURABLES										
98. Ball & Roller Bearings	Mill. Nos.		55	41	60	45	60	48	68	57
99. Typewriters	'000 Nos.		140	106	157	120	154	116	175	135
100. Sewing Machines	„		450	348	590	360	473	349	600	380
101. Mechanical Watches	Mill. Nos.		6.5	5.47	7	6.5	7.3	5.53	10	7.5

1	2	3	4	5	6	7	8	9	10	11
ELECTRICAL COMPONENTS										
CONSUMER DURABLES										
102.	ACSR & AA Conductors	'000 tonnes]	140	46	154	65	150	53	230	60
103.	PVC & VIR Cables (org. Sector)	M. Core Metres	1300	470	1400	540	1310	534	1130	630
104.	Dry Cells	Mill Nos.	1200	1034	1600	1300	1624	1148	1690	1240
105.	Storage Batteries	"	2.5	2.2	2.68	2.4	2.9	2.0	3.1	2.2
106.	Fluorescent Tubes	Mill Nos.	45	35	45	35	60	40	60	43
107.	H.T. Insulators	'000 tonnes	45	35	50	38	45	32	48	35
108.	HT Circuit Breakers	'000 Nos	15	10	18	12	23	14	48	38
109.	Domestic Refrigerators	Do.	520	483	520	480	550	572	835	660
110.	Power capacitors (RT & LT)	MVAR	1600	1400	1800	1500	2366	1150	2366	1380
111.	Welding Electrodes	MRM	800	688	800	780	800	690	896	715
112.	Electric Fans	Mill Nos.	5.5	4.7	6	4.6	4.8	4.8	6	5.1
113.	Power Cables (XPE, PCL, PVC)	'000 Kms.	40	26	45.8	32	64.9	35	66	40
ELECTRONICS										
(A) CONSUMER ELECTRONICS										
114.	Radio Receivers	Rs. crores	160	135	170	150	130	100	140	110
115.	T.V. Receivers	Do.	220	170	300	230	600	436	665	525
116.	Tape Recorders (Audio)	Do.	60	48	80	60	60	50	70	55
117.	Record Players & VCRs	Do.	8	4	11	4	11	2	11	2
118.	Amplifiers & PAS Systems	Do.	20	15	22	16	22	12	22	12
119.	Electronic Watches	Do.	13	6	15	7	15	7	15	8
120.	Others	Do.	35	27	40	38	40	35	42	32
(B) INDUSTRIAL ELECTRONICS										
121.	Instruments	Rs. crores	110	90	115	110	115	98	120	100
122.	Control Instrumentation	Do.	80	65	90	78	90	85	165	130
123.	Industrial Electronics	Do.	120	90	125	110	125	95	225	180
124.	Medical Electronics	Do.	20	15	22	17	22	17	40	30
(C) COMMUNICATION EQUIPMENT										
125.	Mass Communications	Do.	20	15	20	18	100	78	120	80
126.	Telecommunications	Do.	300	250	340	300	340	300	800	600
127.	To-way communication	Do.	18	15	20	17	20	15	30	20
128.	Aero-space	Do.	140	130	150	145	250	200	470	375
(D) COMPUTER SYSTEMS										
129.	Computers (including office equipments & software)	Do.		60	90	80	90	110	150	120
130.	Peripherals	Do.	12	8	18	10	18	15	40	25
(E) PRODUCTION IN FREE TRADE ZONE										
		Do.	90	70	110	90	150	115	200	150
(F) COMPONENTS										
		Do.	320	270	360	350	360	320	600	480

CHAPTER 10

TRANSPORT

An outlay of Rs. 3816.66 crores has been provided for the Transport Sector in 1985-86. Of this, the Centre's share is Rs. 2727.60 crores, States share is

Rs. 968.50 crores and the Union Territories' share is Rs. 120.56 crores. The break-up of the allocation by sub-sectors is given below :

TABLE 10.1
Transport Sector Outlay

Heads	Centre	States	U.Ts.	Total
1	2	3	4	5
Railways	1650.00*	0.10	—	1650.10*
Roads	250.00	625.24	95.10	970.34
Road Transport	70.00	281.84	8.64	360.48
Ports	249.61	22.76	5.57	281.48
Light Houses	3.54			
Shipping	107.59	0.20	5.43	113.22
Inland Water Transport	38.00	10.50	0.66	49.16
Civil Aviation	322.14	3.15	0.76	326.05
Tourism	26.82	24.71	4.40	55.93
Farakka Barrage	9.90	—	—	9.90
Total	2727.60	968.50	120.56	3816.66

* An additional allocation of Rs. 400 crores has since been agreed to for Railways for 1985-86.

Railways

10.2 The main thrust in the Railway sector in the Seventh Plan would be to build up the capacity of the system to carry 340 MT of originating freight traffic over an average lead of 680 kms. and to cater to an annual increase of two per cent in the passenger traffic. Emphasis would be laid on replacement of overaged assets, modernisation and technological upgradation, development or rapid handling terminals, improved maintenance practices, computerised Operations Information System (OIS) and improvement in quality of the service to the economy as well as qualitative change in research and its absorption in the rail system. As part of the Seventh Plan, the above will be pursued in the Annual Plan 1985-86.

Freight Traffic

10.3 During the Sixth Plan, the performance of the Railways improved continuously. From a level of 217.3 million tonnes of originating freight traffic in 1979-80, it reached a level of 264.4 million tonnes (provisional) in 1984-85, as reflected in the following Table :

TABLE 10.2
Freight traffic carried by Railways

Year	Originating Traffic			Total	Net Tonnes Kms. Total Traffic (Billion)
	Revenue Earning	Non- Revenue Earning (Million tonnes)	Total		
1	2	3	4	5	
1979-80	193.1	24.7	217.8	217.8	156.0
1980-81	195.9	24.1	220.0	220.0	158.5
1981-82	221.2	24.6	245.8	245.8	174.2
1982-83	228.8	27.2	256.0	256.0	177.8
1983-84	230.1	27.9	258.0	258.0	178.4
1984-85 (Target)	245.0	25.0	270.0	270.0	182.4
1984-85 (Provisional)	236.3	28.1	264.4	264.4	182.6
1985-86 (Target)	250.0	27.0	277.0	277.0	189.6

It may be observed that the revenue earning traffic in 1984-85 was below the target. This is mainly due to lower materialisation of traffic from the steel plants, iron ore for exports and coal. In respect of total transport effort, there has been an increase from 156 billion tonne Kms. (b.t. kms.) in 1979-80 to about

182.6 b.t. kms. in 1984-85. The targets for 1985-86 envisage a total traffic of 277 m.t. (including 27 m.t. of non-revenue traffic) and 189.6 billion tonne kms. on the basis of an assumed average lead of 680 kms.

10.4 The improvement in rail handling has come about through improvement in utilisation of freight wagons. From a level of 972 net tonne kms. (NTKMs) per wagon day on Broad Gauge Sections in 1979-80, it has reached the level of about 1140

NTKMs in 1984-85. For the year 1985-86, an utilisation level of 1200 NTKMs per wagon day has been fixed, in keeping with the Seventh Plan target level of 1350 NTKMs for the terminal year of the Plan.

Passenger Traffic :

10.5 The data relating to the passenger traffic carried by the Railways in the Sixth Plan may be seen in the Table below :

TABLE 10.3

Passengers carried by Railways

Year	Passengers carried (millions)			Passenger Kms (billions)		
	Suburban	Non-suburban	Total	Suburban	Non-suburban	Total
1	2	3	4	5	6	7
1979-80	1903	1602	3505	38.7	159.9	198.6
1980-81	2000	1613	3613	41.1	167.5	208.6
1981-82	2064	1640	3704	44.0	175.8	220.8
1982-83	2029	1626	3635	43.8	181.1	226.9
1983-84	1834	1491	3325	42.1	180.8	222.9
1984-85 D.E.	1780	1487	3267	43.6	178.4	222.0
R.E.	1908	1472	3380	44.2	184.5	228.7
1985-86	1954	1441	3395	45.0	181.1	226.1

10.6 The number of passengers had been increasing till 1981-82, and thereafter it declined. The decline is steeper in respect of non-suburban traffic. While the suburban traffic declined by 8% during the three year period ending 1984-85, the non-suburban traffic declined by 11%. The decline in non-suburban traffic is primarily in respect of short distance travel and is mainly attributable to the rationalisation of fare structure designed inter alia to discourage short distance traffic. The passenger kilometres, on the other hand, declined only during 1983-84. For 1985-86, the originating passenger traffic is expected to increase marginally.

New Lines

10.7 The New Lines that were opened to traffic during 1984-85 are (i) Wani-Pimpalkutti, (ii) Nalgonda-Miryalguda and (iii) Santragachi-Bargachia. For 1985-86 a provision of Rs. 65 crores has been made and about 201 kms. of additional New Lines are expected to be completed and opened to traffic during the year. These will include Koraput to Machilguda, Dharamnager to Pechartal, Karur to Palayam and Miryalguda to Vishnupur Sections.

Gauge Conversions

10.8 During 1984-85, three lines, viz., New Bongaigaon-Gauhati (Parallel BG line), Barauni-Katihar and Hapa to Okha/Porbandar were completed. During 1985-86, the line from Suratgarh to Anupgarh is expected to be completed. A provision of Rs. 30.40 crores has been made for gauge conversions in 1985-86.

Electrification

10.9 The Railways have energised about 384 route kms. in 1984-85 thereby extending the electrified route kms. to 6440. During 1985-86, projects on the trunk/high density routes of Delhi-Bombay, Delhi-Madras and the coal carrying routes will be given priority. A provision of Rs. 160 crores has been made for the programme. Preliminary works on two new sections namely Tundla-Bayana (106 kms.) and Champa-Gevra Road (45 kms.) are being taken up during 1985-86. Tundla-Bayana would provide a link between the three electrified routes namely Northern, Central and Western Railway routes while the Champa-Gevra Road is being taken up on operational considerations. A total of 650 kms. is likely to be energised in 1985-86.

Track Renewals

10.10 There is a huge backlog of over 20,000 kms. in respect of track renewals which remains to be cleared. A phased programme to clear the arrears over the next ten years would be necessary. For 1985-86 the physical target has been envisaged at 3000 kms. of track renewals.

Rolling Stock

10.11 Against an outlay of Rs. 515 crores provided for 1984-85, Rs. 484 crores had been initially provided for 1985-86. The total acquisition programme consisted of 137 Diesel locos, 58 Electric locos, 162 Electric Multiple Units, 1120 Coaches and 5500 Wagons.

Subsequently additional allocations have been made to enable the Railways to procure additional 7000 wagons and 20 Diesel Locomotives.

Metropolitan Transport Projects

10.12 Parts of the Metro Railway at Calcutta from Esplanade to Bhowanipur (3.5 kms.) and Dum Dum to Belgachia (2.2 kms.) was opened to traffic in 1984-85. The Railways propose to extend the service towards the South upto Tollygunj during 1985-86. Out of the total provision of Rs. 90 crores in 1985-86 for all Metropolitan Projects, Calcutta Metro Railway alone accounts for about Rs. 82 crores.

PLAN OUTLAY

10.13 The outlay provided for railways for 1985-86 is Rs. 1650 crores. Subsequently an additional Rs. 400 crores has been agreed for the sector. High priority is being accorded to replacement of overaged assets, maintenance of existing assets and completion of essential on-going schemes with a view to derive benefits from additions to capacity at an early date. The break up of outlays by Plan heads is given below :

TABLE 10.4
Plan Head-wise distribution of outlays—1985-86—
Railways

Plan Heads	(Rs. in crores)		
	1984-85		1985-86
	Approved Outlay	Revised Estimates	Approved Outlay
1	2	3	4
1. Rolling Stock	515	511	484
2. Workshops & Sheds	105	98	80
3. Machinery & Plant	60	60	55
4. Track Renewals	300	300	415
5. Bridge Works	35	35	35
6. Line Capacity Works	180	208	164
8. Signalling & Safety	50	45	40
8. Electrification	160	150	160
9. Other Electrical Works	12	11	10
10. New Lines	90	87	65
11. Staff Quarters	15	16	13
12. Staff Welfare	8	9	8
13. Users' Amenities	5	5	6
14. Other Specified Works	12	13	9
15. Inventories	15	15	15
16. Investment in Public Sector Undertakings	—	—	1
17. Metropolitan Transport Projects	88	88	90
Total	1650	1651	1650*

*An additional allocation of Rs. 400 crores has since been agreed for Railways for 1985-86, mainly for procurement of wagons, track renewals, workshops, line capacity works and signalling.

Annual Plan—1985-86

ROADS

10.14 In the Seventh Plan, the main policy thrust is to consolidate the gains achieved and to modernise the road system. Adoption of long time horizon is to be the basis for highway planning strategy. Participation by private investors in the road construction programme is to be encouraged.

10.15 Keeping the main objectives in view, an outlay of Rs. 5200.04 crores has been approved for the Seventh Plan including Rs. 1019.75 crores for works in the Central Sector. An outlay of Rs. 250 crores has been approved for the Annual Plan 1985-86 under the Central Sector Roads. Table No. 10.5 below indicates the scheme-wise outlay for 1985-86 and the anticipated expenditure for 1984-85.

TABLE 10.5
Outlay for Central Sector Roads—1985-86

Scheme	(Rs. crores)		
	1984-85	1985-86	
	Outlay	Anticipated outlay Expenditure	
1	2	3	4
1. National Highways	161.00	164.64	204.00
2. Machinery	0.30	0.30	0.30
3. Roads of Inter-State and Economic Importance	7.00	7.50	15.00
4. Strategic Roads	7.50	7.50	12.00
5. Road communication in Sensitive Border Areas	7.00	7.00	8.00
6. Highway Research Development	0.75	0.75	1.50
7. Highway Training Institute	0.25	0.25	1.00
8. Development of roads in Tribal Areas	3.50	3.50	3.50
9. Roads in Dacoity Areas	2.00	2.00	4.00
10. Other Schemes—loans to IRCC, Hooghly Bridge & Road Building machinery	0.70	0.20	0.70
Total	190.00	203.64	250.00

10.16 Out of the Central Sector outlay of Rs. 250 crores, as much as Rs. 204 crores are earmarked for the development of National Highways during 1985-86. The bulk of this is for the on-going schemes. All pre-Seventh Plan works are expected to be completed during the first two years of the Seventh Plan. Some of the National Highway projects assisted by the World Bank are expected to be taken up during the year.

10.17 The physical progress of works under the National Highways during 1984-85 and the targets fixed for 1985-86 are indicated in Table No. 10.6 below.

TABLE 10.6

Scheme	1984-85		1985-86 target
	target	anticipated	
1	2	3	4
ROADS			
I. Construction and Development of National Highways			
1. Construction of missing links bypass and diversion	14 Kms.	13 kms.	32 kms.
2. Improvement of low grade surface sections	4 kms	4 kms.	50 kms
3. Widening & strengthening of single lane sections into two lane sections .	500 kms	233 kms.	200 kms.
4. Widening to two-lanes only	500 kms.	581 kms.	300 kms.
5. Stengthening of weak double lane sections	500 kms.	486 kms.	500 kms.
6. Missing/submersible major bridges	15 nos.	15 nos.	21 nos.
7. Damaged weak minor bridges	100 nos.	90 nos.	80 nos.
II. Strategic			
1. Roads	100 kms.	80 kms.	80 kms.
2. Bridges	15 nos.	12 nos.	21 nos.

10.18 In the State Sector, the expenditure in 1984-85 is estimated at Rs. 713.73 crores against the outlay of Rs. 534.27 crores. The bulk of the expenditure has been on construction of rural roads under the Minimum Needs Programme (MNP). About 2820 villages are estimated to have been covered.

10.19 An outlay of Rs. 625.2 crores has been approved for the development of roads in the State Sector for 1985-86. For Union Territories, the outlay is Rs. 95.09 crores. Priority is to be accorded for the completion of on-going schemes. Traffic requirement is to be the basis for widening and strengthening the roads. Under MNP, it is proposed to cover 3440 villages during 1985-86 with an outlay of Rs. 293.27 crores. In addition a large number of villages are expected to be covered under other programmes like the Rural Landless Employment Guarantee Programme and National Rural Employment Programme.

10.20 The norms for construction of rural roads under MNP in the Seventh Plan has been liberalised. The Annual Plan 1985-86 will cover the following categories of villages in addition to the usual MNP norms of covering villages with a population of 1000 and above.

(i) *Hill Areas*

- (a) 100% linkage during a 10-year time frame to villages with population over 500.
- (b) 50% linkage during a 10-year time frame to villages with population between 200-500.

(ii) *Tribal, Coastal & Desert Areas*

- (a) 100% linkage during a 10-year time frame to villages with population over 1000.
- (b) 50% linkage during a 10 year time frame to villages with population between 500-1000.

ROAD TRANSPORT

10.21 The major thrust in the Seventh Plan is to consolidate the operations of the existing State Road Transport Corporations. Priority has been accorded

for replacement of overaged vehicles, upgradation of technology and improvement in productivity. Augmentation of bus fleet is to be restricted to meeting the increased traffic on the existing routes in the already nationalised areas. In non-nationalised areas, private sector is to be encouraged to operate to meet the traffic needs.

10.22 Keeping in view the policy thrusts enunciated in Seventh Plan, an outlay of Rs. 203.92 crores has been provided in the Central Sector and Rs. 1786.18 crores in the State Sector in the Seventh Plan. A provision of Rs. 70 crores has been made for the Central Sector in 1985-86 which includes Rs. 17 crores for Delhi Transport Corporation and Rs. 49.24 crores for the scheme of Central Government's matching contribution to the State Road Transport Corporations.

10.23 In the State Sector including Union Territories, an outlay of Rs. 289.86 crores has been approved for the Annual Plan 1985-86. The first priority would be for replacement of overaged buses and upgradation of technology in the workshops.

10.24 In 1984-85, the commercial losses of the State Road Transport Corporations including Departmental Undertakings amounted to Rs. 210 crores. In 1985-86, it is estimated to amount to Rs. 236 crores at the 1984-85 level of fares. It will, therefore, be necessary to take measures including revision of fares to make the Undertakings run as viable units. The operational performance of the Corporations/Undertakings is to be closely monitored so that it can be improved.

10.25 In 1984-85, 10239 buses were purchased of which 8374 were for replacement and the rest for augmentation of the fleet. In 1985-86, it is expected that the total purchase would be 12,000 buses of which about 9500 would be for replacement and the balance for augmentation.

10.26 Road safety has been given high priority during the Seventh Plan and an outlay of Rs. 3.75 crores has been provided in the Annual Plan 1985-86 in the Central Sector for the scheme of National Highway Patrolling in selected stretches viz. Delhi-Chandigarh (portion of NH 1), Calcutta-Durgapur

(portion of NH 2), Ahmedabad-Surat (portion of NH 4), Bombay-Kolhapur (portion of NH-8) and Madras-Dindigul (portion of NH 45). The scheme envisages creation of traffic aid posts approximately at a distance of 50-70 kms. on these selected stretches of National Highways.

10.27 As a part of road safety, the State Governments are expected to set up Motor Training Schools. One Motor Training School has already been set up in Delhi under the Union Territory's Plan.

Inland Water Transport (IWT)

10.28 The most important objective during the Seventh Plan is to improve and maintain the navigable waterways, to modernise the vessels and to replace the overage ones so that the productivity in this sector can be enhanced. The policy of declaring certain waterways as National Waterways to give fillip for the development of IWT would be continued and Bramahaputra will be declared as a National Waterway during this Plan period. A high priority is to be given for conservancy work in waterways. An Inland Waterways Authority of India is expected to be set up during this Annual Plan period.

10.29 The operational efficiency of the Central Inland Water Transport Corporation (CIWTC) would be improved by replacing the overaged vessels. Rajabagan Dockyard would be modernised and the technology of craft construction would be upgraded.

10.30 Keeping in view the above policy thrusts, an outlay of Rs. 155 crores in the Central Sector and Rs. 70.73 crores in States' sector has been provided in the Seventh Plan for IWT. An outlay of Rs. 38 crores has been approved for it in the Annual Plan 1985-86. The scheme-wise break-up of the outlay for 1985-86 and the anticipated expenditure in 1984-85 are given in table No. 10.7 below.

TABLE 10.7
Outlays for IWT

Scheme	(Rs. crores)	
	1984-85 anticipated expendi- ture	1985-85 outlay
1	2	3
1. CIWTC Investment Project		
Acquisition of vessels, infrastructural facilities and improvement of Rajabagan Dockyard	13.46	26.96
2. R & D	0.01	0.21
3. Central Schemes		
Hydrographic surveys, acquisition of survey launches, national waterways, interest subsidy, technical studies incl. foreign training, strengthening of IWT Directorate and setting up of Inland Waterways Authority of India	3.34	9.62
4. Centrally Sponsored Schemes	0.51	1.21
Total	17.32	38.00

10.31 The spill over schemes of CIWTC are expected to be completed during 1985-86. By the end of the year, its carrying capacity is expected to be 5.8 lakh tonnes. Work will be initiated on the pilot project between Allahabad-Patna stretch of Ganga to identify further steps to be taken in this stretch for introduction of regular river services.

10.32 In the State Sector, an outlay of Rs. 11.16 crores has been approved in the Annual Plan. A high priority has been accorded to replacement of overaged vessels and improvement of navigable waterways.

PORTS

10.33 In the Seventh Plan, the main emphasis would be on early completion of ongoing schemes, development of infrastructure at major ports to match the type and size of vessels as also the type of cargo handled at these ports, modernisation of cargo handling operations, expansion of facilities to handle container traffic, deepening of drafts at selected ports to receive larger vessels and improvement in productivity and operational efficiency of equipment and labour. Dredging capacity would be increased and selected minor ports would be developed to play a complementary role to the major ports. The Annual Plan 1985-86 has been structured keeping in view the policy thrusts and the priorities set out in the Seventh Plan.

10.34 Against the Plan outlay of Rs. 203.79 crores and the anticipated expenditure of Rs. 180.95 crores in 1984-85, an outlay of Rs. 249.61 crores has been provided for the Annual Plan in 1985-86 for development of ports in the Central Sector. Programme-wise details are given in Table 10.8 below :—

TABLE 10.8
Outlay and Expenditure-Ports

Scheme	(Rs. crores)		
	1984-85 Outlay	1984-85 anticipated Expendi- ture	1985-86 Outlay
1	2	3	4
Major Ports	195.56	169.05	219.86
Dredging Corporation of India (D.C.I.)	2.65	5.48	18.00
Andaman, Lakshadweep Harbour Works (ALHW)	3.38	4.40	8.00
Minor Ports Survey Organisation (M.P.S.O.)	0.65	0.56	1.15
Research & Development (R&D)	0.10	0.01	0.10
Central Dredging Organisation (C.D.O.)	1.00	1.00	0.50
Port Management	0.45	0.45	2.00
Total	203.79	180.95	249.61

MAJOR PORTS

10.35 The traffic handled by major ports increased from 78.5 M.T. in 1979-80 to 100 M.T. in 1983-84

and further to 107.04 M.T. in 1984-85. It is expected that cargo traffic in 1985-86 would increase to around 126.15 M.T.

10.36 The emphasis in 1985-86 will be on progress of essential ongoing schemes such as construction of the Nhava-Sheva Port, improved container handling facilities at Calcutta, construction of oil berth at Vizag, deepening of Bharti Dock, an additional oil berth at Madras and expansion of fertiliser handling capacity at Paradip.

10.37 Action will be initiated on schemes relating to augmentation of container handling facilities at Madras and Bombay, replacement and modernisation of cargo handling facilities and expansion of capacity for general cargo at selected ports.

10.38 An outlay of Rs. 219.86 crores has been provided for major ports during 1985-86, of which around Rs. 187 crores would be financed from internal and extra budgetary resources of the ports.

MINOR PORTS

10.39 The development of selected minor ports as an integral part of the overall port system will receive priority in the Seventh Plan as well as in the Annual Plan 1985-86.

ANDAMAN & LAKSHDWEEP HARBOUR WORKS

10.40 An outlay of Rs. 8 crores has been provided for these works in the Annual Plan 1985-86. Apart from the main continuing schemes such as construction of break-water at Cambell Bay, action on new schemes such as construction of break-water and wharf at Mus in Car Nicobar, breakwater at Rangat in Andaman and breakwaters at Androth in Lakshdweep Island will be initiated.

DREDGING CORPORATION OF INDIA (DCI)

10.41 The dredging capacity available with D.C.I. is far short of the requirements of the major/minor ports and for inland dredging. During the Seventh Plan and Annual Plan 1985-86, it is proposed to purchase trailer suction dredges and other equipment, apart from setting up a dredger repair complex. An outlay of Rs. 18 crores has been provided for D.C.I. during 1985-86.

SHIPPING

10.42 In the Seventh Plan, the main thrust will be on replacement of overaged and uneconomic ships by modern fuel efficient ships, diversification of the fleet through acquisition of cellular container ships, specialised product carriers and crafts to service the off-shore oil industry, expansion of ship repair and dry docking facilities. Coastal shipping would be promoted by acquisition of modern vessels and removal of port constraints. The Annual Plan 1985-86 for the shipping sector has been framed accordingly.

10.43 In the Sixth Plan, it was envisaged that 3.4 MGRT (Gross) or 2 MGRT (net) would be acquired, bringing the total tonnage by the end of the Plan to 7.5 MGRT. The actual acquisition has been far short of the target. During the Sixth Plan, only 0.8 MGRT (net) were acquired. The acquisition in 1984-85 was 0.2 MGRT. This has led to a large spillover of tonnage into the Seventh Plan.

10.44 The shortfall in acquisition of tonnage has been due to the continued recession in the world shipping market, falling freight rates and changing structure of international trade. Indian shipping has been severely affected not only by the above factors, but also due to the presence of a large overaged, fuel inefficient fleet and lack of container fleet. Thus, the Indian fleet has not been able to compete with more efficient foreign shipping lines.

10.45 An outlay of Rs. 107.59 crores has been provided for shipping in the Central Sector for 1985-86 as against an estimated expenditure of Rs. 97.83 crores in 1984-85. Programme-wise details of outlay are given below :—

TABLE 10.9
Central Outlay—Shipping

	(Rs. crores)
Loans to Shipping Development Fund Committee (S.D.F.C.)	62.0
Subsidy to S.D.F.C.	38.00
Merchant Navy Training and Seamen's Welfare & Loans to Sailing Vessels	7.59
Total	107.59

The outlay provided as loans to S.D.F.C. will be mainly for payments to foreign and Indian shipyards for orders already placed on them by the Indian Shipping Companies. No new acquisition is intended to be financed by the S.D.F.C. during 1985-86.

10.46 The main schemes under Merchant Navy Training relate to development of the Directorate of Marine Engineering and Training (D.M.E.T.) branches at Bombay and Calcutta, expansion of training facilities.

LIGHT HOUSES AND LIGHT SHIPS

10.47 An outlay of Rs. 3.54 crores has been provided for light houses and light ships during 1985-86 as against an estimated expenditure of Rs. 2.98 crores during 1984-85.

10.48 The main schemes for which provision has been made in 1985-86 relate to replacement of existing Decca Chains, radio beacons, construction of light houses and replacement of light house tender MV Sagardeep.

CIVIL AVIATION

10.49 In the Seventh Plan, the main emphasis would be on integrated and coordinated development of various agencies engaged in providing Civil

Aviation services. The thrust would be on the improvement of productivity and efficiency of services operated by Air India, Indian Airlines and Vayudoot. This would require restructuring of services, rational deployment of fleet and strengthening of computer and communication facilities. Throughput at the international airports would be increased with the help of operational and tariff measures and by streamlining the facilitation procedure at the airports. Emphasis would also be placed, during the Plan, on the development of infrastructural facilities and manpower development. Selected domestic airports would be developed to serve as satellites relieving pressure on the existing airports.

Programme and Outlay for the Annual Plan

10.50 The programmes and outlay for the Annual Plan 1985-86 have been formulated keeping in view the above objectives and thrust areas of development of Civil Aviation sector in the Seventh Five Year Plan.

An outlay of Rs. 322.14 crores has been provided in the Annual Plan 1985-86 for Civil Aviation in the Central Sector against the estimated expenditure of Rs. 280.60 crores in 1984-85, as per details below :—

TABLE 10-10
Outlay and Expenditure—Civil Aviation

Programme	(Rs. crores)		
	1984-85	1985-86	
	Outlay	Estimated Expenditure	Outlay
1	2	3	4
1. Air India, including Hotel Corporation of India	84.08	106.22	126.48*
2. Indian Airlines	65.39	88.19	87.00*
3. International Airports Authority of India	38.00	42.69	48.00
4. Director General Civil Aviation (D.G.C.A.)	52.00	43.50	59.96
5. Vayudoot	—	—	0.70
Total	239.47	280.60	322.14

*Includes a sum of Rs. 1.50 crores as equity contribution to Vayudoot.

Air India

10.51 The traffic of Air India is likely to increase to 1282 million Revenue Tonne Kms in 1985-86.

The following Table indicates the physical targets and achievement for 1984-85 and the proposed targets for 1985-86.

TABLE 10-11
Physical Achievements and Targets.

Parameter	1984-85		1985-86
	Target	Achievement	Target
1	2	3	4
1. Available Tonne Kms. (ATKMS) in Million	2020	2007	1991
2. Revenue Tonne Kms (RTKMS) in Million	1280	1257	1282
3. %age of utilisation	63.4	62.9	64.4
4. Available Seat Kms (ASKMs) in Million	13387	12766	11944
5. Passenger Kms (PKMs) in Million	9218	8623	8201
6. Load Factor	69.9%	67.5%	68.7%
	Fleet Position		
	1984-85	1985-86	
B707	5	5	
B 747	10	9	
Air Bus	3	3	

An outlay of Rs. 126.48 crores has been provided for Air India in 1985-86. The major part of the outlay is for meeting the requirement of loan repayment against the purchase of aircraft already acquired by

Air India. Provision has also been made for advance payment to be made against the purchase of six Air Bus A 310-300 aircraft in 1986, the orders for which had already been placed. In addition, provision has

been made for computer and communication facilities and ground handling facilities. The outlay of Air India would be fully financed from its internal resources.

Indian Airlines

10.52 The Indian Airlines continue to show improved financial results. In 1984-85 it generated a net profit amounting to Rs. 52.84 crores.

The Indian Airlines received back 2 Boeing 737 aircraft leased to the Indian Air Force. With this, the capacity of the Airlines went up to 959.6 million available tonne kms. in 1984-85. Against this the traffic went up to 663.7 million Revenue Tonne Kms in 1984-85. In 1985-86 the traffic is estimated to increase to about 740 million RTKms. The following Table gives the anticipated achievement for 1984-85 and physical targets for 1985-86.

TABLE 10.12
Achievements and Targets

Parameter	Target 1984-85	Achievements	Target 1985-86
1. Available Tonne Kms (Million)	956.511	959.616	1049.193
2. Revenue Tonne Kms. (Million)	661.247	663.656	739.978
3. Load Factor	69.1%	69.2%	70.5%
4. Passenger Seat Factor	72.4%	73.8%	75.2%
5. No. of Passenger (Million)	8.415	8.509	9.425
6. Aircraft Fleet at year End			
(i) Airbus	10	10	10
(ii) B-737	25	25	25
(iii) Turbo Props	20	19	19

An outlay of Rs. 87 crores has been provided in the Annual Plan 1985-86 for the Indian Airlines. Apart from meeting the committed requirement of loan repayment against the aircraft already acquired by the Airline provision has been made for Hangers, workshop and other operational buildings, real time computer system, ground support equipment etc. The outlay of the Indian Airlines would be financed from its internal resources.

International Airports Authority of India

10.53 An outlay of Rs. 48 crores has been provided in the Annual Plan 1985-86 for the various programmes of the International Airports Authority of India. The three main projects, namely construction of new International Terminal Complex at Bombay (Phase II). Construction of new International Terminal Complex at Delhi and Construction of Domestic Terminal Complex at Madras are likely to be completed in 1985-86.

The International Airports Authority of India expects to generate a sum of Rs. 28 crores as its internal 20—500PC/85

resources. Thus, its requirement for budgetary support is Rs. 20 crores.

Directorate General Civil Aviation (D.G.C.A.)

10.54 The physical and financial performance of D.G.C.A. in 1984-85 was not very encouraging. Against the outlay of Rs. 52 crores, only a sum of Rs. 43.50 crores is estimated to have been spent in 1984-85 as per details below :—

TABLE 10.13
Financial Performance-D.G.C.A.

Name of discipline	(Rs. crores)		
	1984-85		
	Outlay	Expenditure (Estt.)	
1	2	3	4
Aerodrome works		17.50	16.00
Aeronautical communication services		24.70	13.50
Air traffic control & safety services		7.29	7.29
Other schemes		2.51	6.71
Total		52.00	43.50

The main shortfall occurred in the field of aeronautical communication services. Steps are being taken to improve the provision of infra-structure facilities. In 1985-86, an outlay of Rs. 59.96 crores has been provided for D.G.C.A.

A number of schemes aimed at providing better facilities for passengers and safer air travel were completed in 1984-85. These include extension, widening and strengthening of runway and associated pavement of Agartala, extension and modification of terminal building at Baroda, repair and resurfacing of runway at Cooch Behar, extension and strengthening of runway at Mohanbari etc. In addition, a number of safety oriented equipment were acquired by D.G.C.A. In 1985-86, the strengthening of runway and associated pavements at Amritsar, Ahmedabad, Silchar, Jodhpur etc. is likely to be completed. In addition, a number of new terminal buildings at airports are scheduled to be completed in 1985-86. It is also proposed to take up extension, strengthening and resurfacing of runway and associated pavements at a number of airports. Besides, provision has been made to develop airports to meet the requirement of Vayudoot. Another major scheme included in 1985-86 relates to acquisition of aircraft for flight check and acquisition of a number of safety oriented equipment such as high frequency reservoir VHF transmitters/automatic message switching system, DME etc. A number of crash fire tenders are also proposed to be acquired.

Vayudoot

10.55 An outlay of Rs. 3.70 crores has been provided for Vayudoot in 1985-86. This includes a sum of Rs. 1.50 crores each to be provided by Air India and Indian Airlines as equity contribution.

CHAPTER 11

COMMUNICATION, INFORMATION AND BROADCASTING

COMMUNICATIONS

Review of Plan Performance in 1984-85

In 1984-85, the expenditure on communication programmes in the Central Sector is expected to be Rs. 881.3 crores, including Rs. 39.5 crores for Postal Services, Rs. 770 crores for Telecommunications and Rs. 71.8 crores for other communication services, namely Overseas Communication Service, Wireless Monitoring Organisation and the development programmes of Indian Telephone Industries and Hindustan Teleprinters Ltd.

11.2 In the Postal Sector, 62 post offices were opened and 565 letter boxes installed. Besides, 1342 villages were provided with Postal Counter Service facilities. Further, 96 Postal Buildings and 1940 Staff Quarters were constructed during the year. Other physical achievements included the purchase of 116 Mail Motor Vehicles and 18 Railway Mail vans.

11.3 Under Telecommunications, an addition of 2.5 lakh lines of Switching Capacity was made during the year along with 2.30 lakh Telephone connections. As regards Long Distance Switching Systems, the achievements included the commissioning of 2 Trunk Auto Exchanges (TAX), 6900 lines of TAX Capacity, 124 Subscriber Trunk Dialling (STD) routes and 101 Manual Trunk Boards. Under Long Distance Transmission, the achievements included 214 route kms. of Co-axial Cables (excluding 605 route kms. of augmentation works), 1360 route kms. of micro-wave systems, and 1102 route kms. of Ultra High Frequency (UHF) systems. Telex connections numbering 3726 were also given during the year.

11.4 The Indian Telephone Industries produced 165169 equivalent lines of Strowger equipment, 87,701 lines of Cross-Bar equipment, 23,818 lines of Electronic Switching equipment and 631890 telephone instruments in 1984-85. The company also produced transmission equipment worth Rs. 60.00 crores.

11.5 The Hindustan Teleprinters Ltd. produced 7680 units of Teleprinters and ancillary equipment during 1984-85.

11.6 Under the Overseas Communications Service, work was continued on various schemes, including Westward Cable to Gulf Countries & Bombay-Madras micro-wave Link, Switching and Satellite Projects etc. Capital Contribution was also made for INTELSAT and INMARSAT.

11.7 The Monitoring Organisation continued work on various schemes including (i) setting up of 4 micro-wave Monitoring Stations and (ii) establishment of a Satellite Monitoring Station. These schemes will spill over to the Seventh Plan.

Annual Plan 1985-86

11.8 A provision of Rs. 950 crores has been made for communications programmes in the Central Sector. Of this, Rs. 40 crores is for Postal Services, Rs. 835 crores for Telecommunications and the remaining amount of Rs. 75 crores is for other communication programmes. The break-up of the total allocation (by the various sub-heads) is as below :—

TABLE 11.1
Plan Outlays—Communications

	(Rs. crores)
(i) Postal Services	40.00
(ii) Telecommunications	835.00
(iii) Indian Telephone Industries	55.00
(iv) Hindustan Teleprinters Ltd.	3.00
(v) Overseas Communication Service	14.00
(vi) Monitoring Organisation	3.00
Total	950.00

11.9 Under Postal Services, the provision includes Rs. 0.75 crores for expansion of Postal Network, Rs. 29.5 crores for construction of Postal Buildings and Staff Quarters, Rs. 2.00 crores for Training Schemes, Rs. 4.75 crores for mechanisation and modernisation, Rs. 1.8 crores for Railway Mail Vans and Rs. 1.2 crores for Mail Motor vehicles. Under the programme for expansion of Postal Network, the physical targets include the opening of 1755 Post Offices in rural, tribal and backward areas, appointment of 402 Extra Departmental Delivery Agents, installation of 2400 new letter boxes, providing Counter Service to 510 villages through mobile post offices and appointment

of 9 Plan monitoring Inspectors. Under the construction of Postal Buildings, 75 Postal Buildings and 500 Staff Quarters are proposed to be constructed.

11.10 Under Telecommunications, the break-up of the proposed provision of Rs. 835 crores is as follows:—

TABLE 11.2

Schemewise distribution of Outlay—Telecommunications

Plan Scheme	Telecom. Circles including Rural, Semi-urban & Tribal Areas			Metro-politan Districts & other Areas	Total
	Rural & Semi-urban	Tribal	Total		
1 Local Telephone System	156.76	12.82	169.58	276.89	446.47
2.1 Long Distance Switching	10.94	1.00	11.94	30.96	42.90
2.2 Long Distance Transmission	39.18	2.72	41.90	102.57	144.41
2.3 Insat and Intelsat	12.22	4.45	16.67	3.33	20.00
3. Openwire & Telegraphs	39.80	3.06	42.86	50.31	93.17
4.1 Other Land & Buildings (Staff Quarters and Admn. Offices).	5.00	1.00	6.00	18.00	24.00
4.2 TRC, Trg, Testing & other organisations	20.00	—	20.00	43.99	63.99
Total	283.90	25.05	308.95	526.05	835.00
%age :	63	3	37	100	100

11.11 The physical targets include an addition of 3 lakh lines of Switching capacity to commission 2 lakh lines of Direct Exchange lines. Under Long Distance Switching System, the targets are 2 Nos. of Trunk Automatic Exchanges, 6000 lines of TAX capacity, and 8 STD routes and 100 manual trunk boards. In the case of Long Distance Transmission system, the physical targets include 2200 route kms. of Co-axial Cables and 1700 route kms. of Micro-wave Systems. Under UHF Systems, the targets include 1500 route kms. of 60 Channel Capacity and 1000 route kms. of small capacity, 2000 Telegraph offices and 2000 Long Distance Public Telephones (LDPTs) are proposed to be opened; in addition, 20 lakh Exchanges are also proposed to be installed. The Telex capacity to be added during the year includes 8000 local lines and 1000 transit lines. The target for Telex connections during the year is 2700. The Variable Frequency Terminal (VFT) channels capacity will be augmented by 2000. It is also proposed to add 1100 open-wire Channels.

11.12 Under the Tribal Sub-Plan, the physical targets include the provision of 10,700 lines of Switching Capacity to commission 6000 Direct Exchange Lines, addition of 800 route kms. of UHF Systems, 400 LDPTs, 400 Telegraph Offices, 90 lines of Telex Capacity, 5 Satellite Earth Stations and 5 point-to-point STD routes.

11.13 As regards the North Eastern Region, the physical targets include the provision of 5500 Lines of Switching Capacity, 4400 Direct Exchange Lines, 30 Telephone Exchanges, 700 route kms. of UHF Systems, 4 Earth Stations, 50 Telegraph Offices, 50 LDPTs, 400 Telegraph Offices, 90 lines of Telex Capacity by 40 lines.

11.14 A beginning is proposed to be made during the year for implementation of the upgradation programmes in the 4 Metropolitan cities of Delhi, Bombay, Calcutta and Madras. The programme includes (i) expansion/modernisation; and (ii) the improvement component. As the 4 Metropolitan cities account for over 40% of the revenues of the Telecom-munication Department, priority has to be given to the implementation of the programme.

11.15 A provision of Rs. 55 crores has been made for the development programmes of the Indian Telephone Industries. The major on-going schemes on which work will be continued during the year include the expansion of Bangalore and Naini Transmission and Telephone Units, Palghat Phase III Digital Trunk Automatic Exchange (DTAX), Rae Bareilly (Cross-Bar) Unit and the Electronic Switching System (ESS) Factory at Manakpur. The outlay also includes provision for Research and Development.

11.16 For Hindustan Teleprinters Ltd., a provision of Rs. 3 crores has been made for 1985-86. Work on two projects—one for the indigenisation of the manufacture of Electric Typewriters and the other for the manufacture of Electronic Teleprinters would be continued during the year.

11.17 A provision of Rs. 14 crores has been made in 1985-86 for the development of the Overseas Communication Service. The main scheme on which work will be continued during the year relates to West-Ward Cable to Gulf Countries & Bombay-Madras-Micro-wave Link. The other schemes on which expenditure is expected to be incurred include the Switching and Satellite Projects and Capital Contribution for INTELSAT and INMARSAT.

11.18 For the programmes of the Monitoring Organisation, a provision of Rs. 3 crores has been made in the Annual Plan 1985-86. Work will be continued on the scheme for Procurement of Equipment for 4 Monitoring Stations for Micro-wave (upto and beyond 10 GHz), Monitoring of Space Emissions, Modernisation of Equipment etc. Work may also be initiated on some of the new schemes proposed in the Seventh Plan.

SOUND BROADCASTING

Review of Plan Performance in 1984-85

11.19 A provision of Rs. 30.00 crores was made for sound broadcasting in 1984-85 against which the estimated expenditure is Rs. 35.73 crores. During the year, a local radio station was set up at Nagercoil. A radio station was completed at Tura with studios and 1 KW MW transmitter in an interim set-up. New studios at Ranchi (type-II), Sambalpur (type-I) FM service at Delhi, two 100 KW SW transmitters at Delhi (for net-working) and two 250 KW SW transmitters at Aligarh (for external broadcasts) were commissioned during the year and the transmitters were upgraded from 20 KW MW to 100 kilowatts at Raipur and Pune. The installation work was completed in respect of the 100 KW MW transmitter at Shillong and 20 KW MW transmitter (permanent set-up) at Suratgarh. Installation works were in progress for new radio stations at Almora and Itanagar, permanent studios at Mathura, Alwar, Sangli, Visakhapatnam, Gulbarga, Cuddapah and Tirunelveli, 100 KW MW transmitter at Ranchi, and 2x100 KW transmitters each at Silliguri and Madras and Staff Training School at Delhi. Departmental works were taken up for setting up local radio stations at Adilabad and Sholapur and 300 KW MW transmitters each at Lucknow, Rajkot and Dibrugarh, 2x100 KW MW transmitters each at Dharwar and Ajmer, 50 KW SW transmitters at Guwahati, Shillong and Delhi and 20 KW MW transmitter at Tura. Works were also taken up in respect of studios at Kanpur, Puna and Madurai.

Annual Plan 1985-86

11.20 The thrust in the Annual Plan 1985-86 will be on completion of the continuing schemes. Some important new schemes will also be taken up during the year. The approved plan outlay for All India Radio for 1985-86 is Rs. 45 crores. AIR expects to commission new stations at Madurai, Almora, Sholapur, Adilabad, Keonjhar, Kota and Itanagar in 1985-86. Permanent studios are likely to be completed and commissioned at Tirunelveli, Gulbarga, Sangli, Cuddapah, Visakhapatnam, Patna, Kanpur and Bhagalpur. Besides nine high power transmitters are expected to be commissioned—300 KW SW transmitters at Lucknow, Rajkot and Dibrugarh, 200 KW MW transmitters at Ajmer, Dharwar, Madras and Silliguri and 100 KW MW transmitters at Ranchi and Patna. A new integrated broadcast service for the north-eastern region from Shillong and Guwahati with 50 KW SW transmitters is expected to be commissioned.

TELEVISION

Review of Plan Performance during 1984-85

11.21 Against the outlay of Rs. 63 crores for Doodarshan for 1984-85, the anticipated expenditure is Rs. 61.11 crores. 126 new transmitters were commissioned during the year, taking their total number to 172. These include 40 High Power Transmitters (HPTs) and 132 Low Power Transmitters (LPTs). The LPTs at Cochin, Dibrugarh, Silchar, Imphal, Tura, Shillong, Kohima, Itanagar, Dwaraka, Jammu, Poonch and Visakhapatnam are being upgraded to high power transmitters. A second TV channel was introduced at Delhi. Second channels for Bombay, Calcutta and Madras were under consideration. The permanent TV studio complex at Calcutta was nearing completion. Programme production facilities were provided at Trivandrum (interim set-up), Gorakhpur, Ranchi and Rajkot. Similar facilities were being provided at Guwahati in an interim set-up. Doodarshan had 17 programme production centres in the country by the end of 1984-85. Programme production facilities at Doodarshan Kendra, Delhi were considerably strengthened during the year. Electronic News Gathering (ENG) equipment was provided to all the Kendras to facilitate field based programmes in colour. Studio buildings were nearing completion at Ahmedabad and Jaipur. Construction of studio building at Lucknow, Hyderabad and Guwahati and transmitter building at Vijayawada was taken up; 21 steel and 7 reinforced cement concrete (RCC) TV towers of about 150 metre height were taken up for construction during the year in addition to 235 metre high RCC tower at Delhi. Construction of staff quarters was taken up at Calcutta, Lucknow, Jalandhar, Panaji, Hyderabad, Raipur and Nagpur.

Annual Plan 1985-86

11.22 Out of the Annual Plan allocation of Rs. 5 crores for Doodarshan for 1985-86, an amount of Rs. 47 crores is for continuing schemes and Rs. 17 crores for new schemes. During the year Doodarshan expects to commission TV studios at Jaipur, Ahmedabad and Trivandrum and 2x10 KW transmitters with a 235 metre high RCC tower at Delhi. It also expects to complete and commission the high power transmitters at Poonch, Jammu, Vijayawada, Panaji, Visakhapatnam, Agartala, Dwaraka and Kurseong. Besides a number of low-power transmitters. The new schemes for which the provision is included in the Annual Plan for 1985-86 include studio facilities at Bhopal, Patna, Agartala and Dhuhaneswar, satellite uplinks, C-band (TV Receive only), microwave links, renewal, replacement and modernisation of equipments, expansion of TV service including border coverage, special software schemes and strengthening of the programme exchange unit. An interim second channel has been introduced at Bombay. Second channels are also expected to be introduced at Calcutta and Madras. Work on the schemes relating to TV coverage of the North Eastern Region is also expected to make substantial progress.

INFORMATION AND PUBLICITY

Review of Plan Performance during 1984-85

11.23 In the Information and Publicity Sector, construction of Sookhna Bhavan in Delhi commenced during the year. Work for construction of Films Division's new building at Bombay is to start soon. Construction work continued on the building of National Film Archives of India at Pune. 12 films are nearing completion under the scheme of production of special films in 16 mm specially intended for rural audiences. The number of prints for theatrical release is expected to go up during the year. The Press Information Bureau opened an office-cum-information centre at Jodhpur in Rajasthan and conducted several tours to the backward, tribal and hilly areas. The two regional offices of the Central Board of Film Certification at Bangalore and Trivandrum were made operational while the regional office at Hyderabad is expected to function shortly. The Children's Film Society of India completed production of one feature film. The efforts of the Directorate of Advertising and Visual Publicity have been towards greater dissemination of information in rural and tribal areas. The Song and Drama Division's sound and light unit presented several performances in different parts of the country. The building of the Indian Institute of Mass Communication at Jawaharlal Nehru University complex in New Delhi is under construction. The National Film Development Corporation continued to help in the production of films and financing of the construction of theatres.

11.24 The Annual Plan 1984-85 included a provision of Rs. 23.64 crores for schemes relating to information and publicity. Out of this, an outlay of Rs. 7.03 crores was for the Centre, Rs. 15.45 crores for the States and Rs. 1.16 crores for the Union Territories. The anticipated expenditure is Rs. 6.09 crores for the Centre, Rs. 15.93 crores for the States and Rs. 1.30 crores for the Union Territories.

Annual Plan 1985-86

11.25 The construction of Sookhna Bhavan at New Delhi and Patna will be at an advanced stage in 1985-86, the building of the National Film Archives of India at Pune will be completed and the construction of Films Division building (second phase) will commence. The Films Division is to make additional prints in view of the increase in the number of theatres in the country. It has also drawn up a programme of replacement of equipment and a beginning will be made in 1985-86.

11.26 The Directorate of Film Festivals will participate in the Festival of India to be held in France and USA in 1985. The Children's Film Society proposes to produce five feature films and dub another 35 films. It will take up new schemes of modernisation and augmentation of production facilities and will organise International Children's Films Festival at Bangalore. The Film and TV Institute of India will improve its admission procedure and training programme. The Press Information Bureau is expected to computerise its photo-indexing and feature-articles. The National Film Archives of India proposes to procure additional archival films. The Central Board of Film Certification proposes to computerise its information system and improve infrastructural facilities for certification of video films. The Publications Division will further strengthen its sales promotion activities and bring out "Yojana" in other regional languages. The Directorate of Advertising and Visual Publicity will continue to strengthen its exhibition activities and, in addition, embark on a new scheme of conducting operational research in rural communication. The Song and Drama Division will set up new regional offices and a programme design unit. The building of the Indian Institute of Mass Communication is expected to be completed and new courses in the field of mass-communication and communication technology will be started.

11.27 A provision of 26.12 crores has been made in the Annual Plan for 1985-86 for schemes relating to information and publicity. Out of this, an outlay of Rs. 11 crores is for the Centre, Rs. 13.76 crores for the States and Rs. 1.36 crores for the Union Territories.

INSAT SPACE SEGMENT

11.28 The outlay for 1984-85 agreed to for INSAT-SPACE Segment was Rs. 37.38 crores. Half of this (Rs. 18.69 crores) was provided in the communications sector and the other half (Rs. 18.69 crores) in the Science and Technology sector. Against this, the revised estimate for 1984-85 is Rs. 39.04 crores, of which Rs. 19.52 crores is in the Communications sector.

11.29 For the Annual Plan 1985-86, an outlay of Rs. 25 crores has been provided; Rs. 12.50 crores in the Communications sector and Rs. 12.50 crores in the Science and Technology sector. The outlay sought for is entirely for contract payments to (i) the spacecraft manufacturer FORD; (ii) NASA for the launching; (iii) provision of Rs. 45 lakhs for liability and pre-launch insurance and (iv) for normal operating cost of the control facilities at Hassan.

CHAPTER 12

EDUCATION

Review of Plan Performance in 1984-85

An outlay of Rs. 838.64 crore was approved for

the Education Sector in the Annual Plan 1984-85. Against this, the expenditure (Revised Estimate) was Rs. 904.72 crores as shown in Table 12.1 below :—

TABLE 12.1
Approved Outlay and Revised Estimates for 1984-85 by Centre, States and UTs.

Sl. No.	(Rs. crore)					
	Approved Outlay			Revised Estimate		
	Centre	States & UTs.	Total	Centre	States UTs.	Total
1. General Edn.	157.00@	549.07	706.07	171.54	597.42@	768.96
(a) Elementary Edn.	15.61	256.01	271.62	25.98	281.87	307.85
(b) Adult Edn.	37.00	21.40	58.40	41.20	22.79	63.99
2. Art & Culture	15.00	18.23	33.23	17.72	14.77	32.49
3. Technical Edn.	39.65	59.69	99.34	40.08	63.19	103.27
4. Total Education	211.65	626.99	838.64	229.34	675.38	904.72

@The approved outlay does not include provision of Rs. 10 crores for awards ie to States for excellent performance in Elementary and Adult Education under 20-Point Programme Scheme whereas the Revised Estimate includes the expenditure on such awards.

12.2 The major thrusts in Education during 1984-85 continued to be the programmes of universalisation of elementary education for the age-group 6-14 and eradication of adult illiteracy in the age-group 15-35. Both these programmes were included as an integral part of the Minimum Needs Programmes (MNP) in the Sixth Five Year Plan, 1980-85. These are also covered under the 20-Point Programme.

Physical Achievement

12.3 At the elementary school stage, the State Governments and Union Territory Administrations have reported additional enrolment of 52.52 lakh children in 1984-85, against the target of 50.29 lakhs. Table 12.2 indicates the progress of additional enrolment at the elementary stage in 1984-85.

TABLE 12.2
Additional Enrolment at Elementary Stage in 1984-85

		(Figures in lakhs)	
		Target	Anticipated Achievement
I. PRIMARY STAGE			
Classes I—V (Age-Group 6-11 years)			
	Boys	13.55	18.11
	Girls	17.70	21.50
	Total	31.25	39.61
II. MIDDLE STAGE			
Classes VI—VIII (Age-Group 11-14 years)			
	Boys	9.58	8.06
	Girls	9.46	4.85
	Total	19.04	12.91
III. ELEMENTARY STAGE			
Classes I—VIII (Age-Group 6—14 years)			
	Boys	23.13	26.17
	Girls	27.16	26.35
	Total	50.29	52.52

12.4 In 1984-85 the achievement of the enrolment in classes I-V was 39.61 lakhs, which is higher than the target of 31.25 lakhs. The enrolment in classes VI-VIII, particularly of girls, however, showed a shortfall.

12.5 In order to promote girls' enrolment, a number of new programmes were initiated by the Ministry of Education through Central assistance to States and UTs. These programmes were taken up more vigorously towards the later part of the Sixth Five Year Plan. The programmes had, however, not been com-

pletely operationalised by the States and their impact is yet to be reflected fully in the improvement of enrolments. Central assistance was provided to the State Governments for appointment of lady teachers as also for running non-formal centres exclusively for girls.

12.6 During the Sixth Five Year Plan, 9 States were identified as educationally backward. The progress of enrolment at the elementary stage in these States during the Plan period is indicated in Table 12.3.

TABLE 12-3

Progress of Elementary Education in Educationally Backward States

(Figures in lakhs)

Sl. No.	States	Target		Anticipated Achievement	
		Classes I-V	Classes VI-VIII	Classes I-V	Classes VI-VIII
1.	Andhra Pradesh	61.35	12.60	64.18	12.42
2.	Assam	22.81	8.58	23.25	8.70
3.	Bihar	82.44	18.40	78.90	19.25
4.	Jammu & Kashmir	7.63	2.49	7.21	2.42
5.	Madhya Pradesh	59.14	16.48	63.53	18.48
6.	Orissa	33.93	7.78	32.06	7.75
7.	Rajasthan	33.72	10.39	43.00	10.90
8.	Uttar Pradesh	111.17	36.72	117.07	36.78
9.	West Bengal	77.30	22.50	78.15	26.20
10.	Total (1-9)	489.49	135.94	507.35	142.90
11.	All India	826.33	258.35	853.78	267.29
12.	10 as % age of 11	59.23	52.61	59.42	53.46

12.7 At the Elementary Stage about 58 per cent of the total enrolment target 59 per cent for classes I-V and 53 per cent for classes VI-VIII) was accounted for by the nine educationally backward States. The progress reported by these States indicates that the achievement has exceeded the total target fixed for them in the Sixth Plan by 4 per cent, which is the same as the excess at all-India level.

12.8 In classes I-V, out of nine States mentioned above Andhra Pradesh, Assam, Madhya Pradesh, Rajasthan, West Bengal and Uttar Pradesh have achieved more than the Sixth Plan targets while Bihar, Jammu & Kashmir and Orissa have reported shortfalls. The highest shortfall of 6 per cent is in the case of Jammu & Kashmir and Orissa followed by Bihar (3 per cent).

12.9 In classes VI-VIII, West Bengal, Madhya Pradesh and Rajasthan have shown good progress,

the achievement reported by them being in excess of the Sixth Plan targets by 16%, 12% and 5% respectively. It is interesting to note that in these classes the performance of the nine backward States taken together was higher than the Sixth Plan target by 5.12 per cent as against 3.5 per cent increase for the country as a whole.

12.10 Looking into the overall position, the performance of the educationally backward States has been satisfactory in relation to all India achievements. In spite of this, there is still a large number of children who are non-enrolled and need to be taken care of.

Sixth Plan—Progress of Expenditure

12.11 Table 12.4 below indicates the progress of Sixth Plan expenditure as compared to the approved outlay.

TABLE 12.4

Progress of Sixth Plan Expenditure on Education by Major Heads by Centre, States/UTs.

Sl. Sub-Head No.	Outlay			Expenditure		
	Centre	States/UTs.	Total	Centre	States/UTs.	Total
	(Rs. crores)					
1. General Education	515.75	1646.48	2162.23	463.47 (-10.15)	1992.56 (+21.02)	2456.03 (+13.58)
(a) Elementary Edn.	45.30	851.07	905.37	62.19 (+14.53)	827.96 (-3.72)	890.15** (-1.69)
(b) Adult Edn.	60.00	68.00	128.00	95.71 (+59.52)	70.72 (+4.00)	156.43 (+30.02)
2. Art & Culture	51.00	32.90	83.90	52.07 (+2.09)	63.56 (+93.19)	115.63 (+37.82)
3. Technical Edn.	168.00	109.61	277.61	139.15 (-17.18)	179.13 (+63.42)	318.28 (+17.79)
4. Sports				14.72	11.63	26.35
Total	734.76	1788.99	2523.75	669.41 (-8.90)	226.88 (+25.59)	2916.29 (+15.55)

*mutlay included under general education.

**1980-84 Actual Expenditure, 1984-85 Anticipated Expenditure.

(-) Shortfall, (+) increased, indicates the percentage of expenditure over the approved outlay.

12.12 It will be observed from the above Table that against the Sixth Plan provision of Rs. 2524 crores, the expenditure is estimated at Rs. 2916 crores, representing an increase of over 15 per cent. The expenditure of the States and Union Territories shows an increase of over 25 per cent while that of the Centre shows a shortfall of 9 per cent. The shortfall

in expenditure in the Central sector is attributable mainly to the constraint of resources.

Annual Plan 1985-86 :

12.13 The outlay originally provided for General and Technical Education, Art and Culture and Sports for 1985-86 was Rs. 912.78 crores as shown in Table 12.5 below :

TABLE 12.5

Approved outlay for 1985-86 for Education, Art & Culture and Sports by Centre, States and Union Territories.

Sl. No.	Sub-Head	(Rs. Crores)		
		Centre	States/UTs	Total
1.	General Education	169.75	542.30	712.05
	(a) Elementary Education (MNP)	16.05	237.19	253.24
	(b) Adult Education (MNP)	39.00	26.53	65.53
2.	Art & Culture	19.00	20.13	39.13
3.	Technical Education	51.25	76.57	127.82
4.	Sports	11.18	22.60	33.78
5.	Grant Total	251.18	661.60	912.78

12.14 Subsequently, an additional amount of Rs. 108 crores was provided for Education at the Centre, raising the total provision in the Central sector from Rs. 251.18 crores to Rs. 359.18 crores. The break-up of Rs. 108 crores is : Rs. 21.53 crores for Elementary Education, Rs. 24.0 crores for Adult Education, Rs. 24.40 crores for Technical Education and Rs. 38.07 crores for other schemes. Taking into

account the additional provision, the total outlay for Education, Art and Culture and Sports for 1985-86 would be Rs. 1020.78 crores. This represents an increase of 12.79 per cent over the Revised Estimate of Rs. 905 crore for 1984-85. On a comparable basis, however, the step up is much higher, since a part of the Plan expenditure in 1984-85 has been treated as committed and provided for on the non-Plan side.

Elementary Education

12.15 The outlay for Elementary Education approved for 1985-86, including the additional allocation of Rs. 21.53 crores mentioned above, is Rs. 274.77 crores against the revised estimate of Rs. 307.85 crores (Rs. 25.98 crores for Centre and Rs. 281.87 crores for States and Union Territories) for 1984-85. The expenditure will be mostly for qualitative improvement and for expansion of facilities for girls and for the weaker sections of the society. Due attention will be paid to improving the programmes designed to enhance the retention rates in the formal school system, thereby reducing wastage of scarce resources, both physical and financial. A low-cost alternative would be developed to expedite effective universalisation of elementary education.

12.16 In order to increase the enrolment of the Scheduled Castes, Scheduled Tribes and other weaker sections of the society, the various incentives viz. free supply of books, stationery and school uniforms and payment of attendance scholarships will be continued. To help retain children in the school system, the infrastructure in the existing schools is being strengthened, improved and extended on priority basis. Modest provision has also been made for improving school buildings, libraries, science education, teaching materials, supply of tat-pattis, furniture etc. Educational programmes are being actively developed to make use of the new technological and communication facilities available from INSAT-1B.

12.17 To promote school going habits in children as also to improve the retention rate, provision of play centres/balwadis as adjunct to primary schools will be further encouraged in 1985-86. This will enable regular attendance, particularly of girls who otherwise are required to look after the younger children in the family when their parents are away for work. Population education, public health education, ecology concepts etc. are being added to the curricula to make school education relevant to national development. Teaching of science is being further extended and facilities in laboratories are being improved. Block Education Officers responsible for the supervision of education will continue to receive in-service training for enhancement of their professional competence. Training courses in planning and management for field level functionaries would be further intensified. Monitoring and evaluation of on-going programmes will be strengthened, with particular reference to the 20-Point Programme.

Adult Education

12.18 An outlay of Rs. 89.53 crores, inclusive of the additional allocation of Rs. 24 crores mentioned earlier, (Rs. 63 crores at Centre and Rs. 26.53 crores in State Sector) has been provided for 1985-86 against the expenditure of Rs. 63.99 crores in 1984-85. The programmes will be further expanded and additional literacy projects will be taken up, particularly in State Sector. The Ministry of Education will, apart from increasing the number of Rural Functional Literacy Projects, fully funded by the Central Government, continue to assist the States in strengthening the resource centres set up to facilitate the task of training

functionaries and production of teaching/learning materials. The programmes of workers' social education, sharnik vidyapeeths and production of post-literacy follow-up reading materials for non-literates will be continued.

Secondary Education

12.19 The normal additional requirements of facilities at the secondary stage will be met in 1985-86, with emphasis on quality improvements. Master Plans consistent with the school complex concept for opening new secondary schools would ensure appropriate location and optimum utilisation of the new as well as existing facilities. Scholarships would continue to be given to children from rural areas and those belonging to Scheduled Castes/Scheduled Tribes. Improvement in science teaching through the provision of laboratories, revision and updating of curricula and production of text books and other learning material will continue to receive priority. Provision of libraries, establishment of book banks and in-service training of teachers are proposed to be organised on large scale. Teachers will be encouraged to take up projects for improvement of their schools through the State Councils of Education, Research & Training. High priority is given in the Annual Plan 1985-86 to vocationalisation. Surveys are proposed to be carried out in selected districts to assess the local work opportunities for the middle level semi-skilled workers. These surveys will help in identifying the needs of vocationalisation at the plus two stage of Secondary Education.

Higher Education

12.20 Provision has been made for continuance of the important on-going programmes of the Sixth Plan. In the Annual Plan 1985-86, maximum stress would be on optimum utilisation of the existing facilities with special emphasis on first generation learners, particularly of socially disadvantaged groups. Adequate linkages would be established between education, employment and economic growth by restructuring courses. Greater involvement of student and community would be sought to be achieved than hitherto. Adequate provision has been earmarked for U. G. C. (University Grants Commission) to implement the policy frame of higher education. The perennial problem of regulating admissions in higher education, particularly in general education, would be sought to be tackled through non-formal measure of correspondence courses, open university etc. Persisting deficiencies in teaching of science and technology and research would be attempted to be removed during the Seventh Plan. The Centres of advanced studies will be activated to undertake fundamental as also applied research. Emphasis will be on promotion of quality programmes through inter-collaboration among universities, national laboratories, and other research institutions during 1985-86 and subsequent years of the Seventh Five Year Plan.

Technical Education

12.21 Under technical education, stress will continue to be laid on consolidation and quality improvement through modernisation of the existing infra-

structure, curriculum improvement and faculty development. Programmes of assistance to selected engineering colleges and polytechnics to help them in critical areas of institutional development will be continued. Centres of advanced studies established in the Institutes of Technology would be developed on the lines recommended by the High Level Review Committee. The programme of the institutional network and internal technical assistance will be continued and extended wherever possible.

12.22 Priority will be given to the creation of facilities for manpower training in areas like computer science, electronics, instrumentation, maintenance engineering, bio-sciences etc. A Technical Manpower Information system to assist realistic planning for technical education facilities has started functioning and will become fully operational during the Seventh Plan. In order to help the transfer of technology and technical skills to rural areas, the existing 36 Community Polytechnics will be further assisted and strengthened and the facilities available therein improved during 1985-86.

20-Point Programme

12.23 The 20-Point Programme envisages provision of universal elementary education to children in the age-group 6—14 and eradication of adult illiteracy in the age-group 15—35. Concerted efforts would be continued in 1985-86 to realise the targets set in the Annual Plan for the development of elementary and adult education as high priority programmes. Additional enrolment targets of 52.72 lakhs for elementary education and 75.46 lakhs for Adult education have been fixed for 1985-86 (Annexure 12:1).

12.24 The programme of monitoring the progress of elementary education and adult education will be continued and further strengthened to make it more effective and to provide timely and reliable information for taking corrective measures, thereby facilitating the achievement of targets.

12.25 The educationally backward States account for 76.64 per cent of the target of 52.72 lakhs additional children at the elementary stage during 1985-86.

State-wise distribution of the target is indicated in Annexure 12.1.

Art and Culture

12.26 Work will continue on buildings under construction on a priority basis. Provision has been made for setting up of two zonal cultural centres, one at Patiala for the Northern Zone and the other at Vishwabharati, Shantiniketan for the Eastern Zone, for the creative development of zonal culture. They will provide facilities for creative development of arts, with special attention to traditional, folk and tribal arts. The on-going programmes of Archaeology, Archives, Museums, Libraries, Akademies etc. would be further developed.

Sports and Youth Affairs

12.27 The existing programmes of Sports and Youth Affairs will be further developed in 1985-86. The coverage under the National Service Scheme will be increased in the light of the recommendations of the Committee set up to review this scheme. It is also proposed to open 100 additional Nehru Youth Kendras, covering as many more districts, for the benefit of Non-student Youth. The International Year of the Youth will be celebrated in a fitting manner through a number of activities. The network of youth hostels will be further expanded and ten youth hostels in different stages of construction will be completed.

12.28 The infra-structural facilities at the Netaji Subhash National Institute of Sports, Patiala and its Southern Campus, Bangalore will be further expanded. Grants will be given to State Sports Councils for developing facilities for sports and games, particularly for constructing utility stadia at district headquarters. In order to implement the National Sports Policy, systematic efforts will be made to provide Sports for all and achieving excellence in as many areas of sports and games as possible. In addition to the task of managing infra-structural facilities created for Asiad 1982, the Sports Authority of India will initiate programmes for promoting Sports and Games.

**Additional targets for Elementary and Adult Education
(1985-86)**

Sl. No.	States/UTs	(In 000's)	
		Elementary Education	Adult Education
1	2	3	4
1.	Andhra Pradesh	760	440
2.	Assam	301	362
3.	Bihar	652	1040
4.	Gujarat	180	415
5.	Haryana	117	183
6.	Himachal Pradesh	30	40
7.	Jammu & Kashmir	81	77
8.	Karnataka	125	384
9.	Kerala	—	100
10.	Madhya Pradesh	700	756
11.	Maharashtra	378	572
12.	Manipur	10·5	50
13.	Meghalaya	8	40
14.	Nagaland	10	20
15.	Orissa	186	225
16.	Punjab	35	125
17.	Rajasthan	355	366
18.	Sikkim	4·5	15
19.	Tamil Nadu	225	700
20.	Tripura	26	40
21.	Uttar Pradesh	500	900
22.	West Bengal	502	550
	Total (States)	5186	7400
23.	A & N Islands	4	2·4
24.	Arunachal Pradesh	10	12·9
25.	Chandigarh	5·6	6·0
26.	Dadra & Nagar Haveli	0·5	3·6
27.	Delhi	51	90·0
28.	Goa, Daman & Diu	4	10·0
29.	Lakshadweep	—	1·0
30.	Mizoram	5	5·0
31.	Pondicherry	3·5	15·0
	TOTAL (UTs)	83·6	145·9
	Grand Total	5271·6	7545·9

CHAPTER 13

HEALTH, FAMILY WELFARE AND NUTRITION

HEALTH

The programmes for the Annual Plan 1985-86 have been framed in the light of the long-term objective of ensuring Health for All by 2000 AD. An effort has also been made to fill the critical gaps in the achievement of the Sixth Plan targets as revealed by a broad review of the performance upto the year 1984-85.

Review of Performance

Minimum Needs Programme

13.2 The health care infrastructure in rural areas

has been further augmented and strengthened to ensure reach of primary health care to the vast segment of population living in villages. Priority has been accorded to stepping up of training capacity for Auxiliary Nurse Midwives (ANMs) and other paramedical workers to ensure proper manning and effective functioning of health centres etc.

13.3 The targets set and achievements reported under the Minimum Needs Programme for 1984-85 along with the achievements in the preceding four years are given in the Table below :

TABLE 13.1

Targets and achievements

Programme	No. in position as on 1-4-80	Sixth Plan 1980-85 targets (Addl)	1980-84 Achievement	1984-85 Targets	1984-85 Anticipated Achievement	Sixth Plan 1980-85 Anticipated Achievement (4+6)
1	2	3	4	5	6	7
(i) Sub-Centres	47517	40000	26727	9071	8782	35509
(ii) Primary Health Centres	5477	600	928	192	1155	2083
(iii) Subsidiary Health Centres	1922	1000	1223	396	396	1619
(iv) Community Health Centres	249	174	301	118	99	400

13.4 High priority has been assigned under the programme to the establishment of sub-centres which constitute nuclei at grass root level to provide preventive and promotive health care measures in addition to family welfare and Maternal and Child Health (MCH) care facilities. Andhra Pradesh, Manipur, Meghalaya, Orissa and Uttar Pradesh have reported achievement far exceeding the targets set in the Sixth Plan. Himachal Pradesh, Karnataka and Madhya Pradesh together account for an anticipated shortfall of 770 sub-centres. Bihar, Kerala, Madhya Pradesh, Uttar Pradesh and Rajasthan have also reported relatively poor performance. Augmentation of primary health care facilities in a large chunk of rural dispensaries in Maharashtra in 1984-85 has enabled achievement of more than three-fold increase over the targets of additional primary health centres. The States of Karnataka, Uttar Pradesh and West Bengal lagged behind the set targets in the year 1984-85. All the States have accorded high priority to the setting up of Community Health Centres for providing basic specialist care facilities.

13.5 The States have not, however, accorded due priority for effective proper manning of the health units etc., set up under the programme and have not fully utilised the funds provided for the purpose under the Central Sector.

13.6 Under the Multi-purpose workers scheme, health workers appointed under various vertical public health programmes have been trained as multi-purpose functionaries in 340 out of a total of 412 districts upto the end of March 1985. Trained workers could not, however, be deployed to function as multi-purpose workers by most of the States consequent to issues relating to unification of cadres and rationalisation of pay scales.

13.7 The Village Health Guides scheme is funded 100% by the Centre with effect from 1-12-1981. 118 more primary health centres were covered by the scheme during 1984-85, raising the overall number of such primary health centres to 4170 by the end of the year. The overall number of trained guides increased from 3.13 lakhs in March 1984 to 3.70 lakhs by March 1985. Karnataka, Rajasthan, Bihar and Uttar Pradesh have lagged behind considerably under this programme. The States of Jammu & Kashmir, Kerala, Tamil Nadu and Union Territory of Arunachal Pradesh have been continuing the "Alternative Scheme" to the Centre's Village Health Guides Scheme. Jammu & Kashmir has covered under the 'Rehbar-e-Sehat' 26 out of the total of 2450 blocks in the State and 1219 volunteers were trained. Kerala has covered under the State programme 3 districts of Trivandrum, Kozhikode

and Wynand. Under 'Mini-Health Scheme' of Tamil Nadu, 241 Mini Health Centres were reported to have been set up. In Arunachal Pradesh, 553 persons trained as 'Medics' were reported working as on 30-9-1984.

Control of Communicable Diseases

13.8 The modified plan of operation for control of malaria was continued. The incidence of malaria declined from 6.5 million cases in 1976 to 2.02 million cases (provisional) in 1984. The number of blood smears examined increased from 55 million in 1976 to 64.29 million in 1983. The number of 61.23 million blood smears examined in 1984 (provisional) however reflects a decline as compared to the preceding year's level. A total of 246 deaths (provisional) were reported in the year 1984 against 239 in 1983. The strategy adopted for containing *P. falciparum* has proved effective and there had been a decline in its incidence from 7.5 lakh cases in 1976 to 5.87 lakh cases in 1984. There are, however, localised problems of *P. falciparum* infection, resistance of the vector to DDT/BHC and resistance of the malaria parasite to chloroquine, Acute shortage of staff and ineffective deployment of available staff, inadequate coverage of sprayable area and unsound financial management of the programme by some of the States are found to be the basic impediments in effective containment of the incidence under the control programme. The cost of Malathion insecticide required for spraying operations is being funded fully by the Centre with effect from 1983-84. Antilarval measures are also being strengthened suitably in urban areas. The expenditure incurred by the Centre on the National Malaria Eradication Programme on 50% sharing basis and on Malathion on 100% sharing basis amounted to Rs. 87.99 crores during the year 1984-85.

13.9 Under the *National Filaria Control Programme*, 188 control units, 115 clinics and 28 Survey units were established upto the end of 1984-85. The experimental projects taken up in 1978 in three selected districts in the country with the object of developing a strategy to tackle the problem of rural filariasis have also made good progress.

13.10 Under the *National Leprosy Eradication Programme*, which is being funded 100% by the Centre with effect from 1-4-1981, it was targeted to increase the level of detection of cases from 60% in 1980-81 to 90% by the end of the Sixth Five Year Plan and the level of disease arrested cases from 20% to 40% during the same period. 4.81 lakh

additional cases were detected and 3.44 lakh cases brought under treatment during the year 1984-85, raising the overall cases on record at the end of March 1985 to 35.6 lakhs and cases under treatment to 33.50 lakhs after accounting for 19.30 lakh cases discharged after cure/disease-arrest/died or left overs. 403 leprosy control units, 661 urban leprosy centres, 6985 Survey, Education and Treatment (SET) Centres and about 33,000 Leprosy beds were provided under the programme upto the end of March 1985. The pilot project for the multi-drug regimen initiated in 9 districts in the country with SIDA assistance has been in progress.

13.11 Under the *control of Tuberculosis* programme, detection and treatment of new TB cases based on the targets assigned to the States/UTs is being pursued with vigour. 12.08 lakh cases were detected and brought under treatment during 1983-84. Against the target of detecting another 13.75 lakh cases during 1984-85, 12.54 lakh new TB cases were reported detected. With the additional equipment facilities made available at the Primary Health Centres (PHCs), about 1.73 million sputum examinations of the new chest symptomatics were conducted at PHCs during 1984-85 against 1.21 million in 1983-84. The programme is being continuously monitored to ensure its effective implementation, including optimum utilisation of 360 District TB Centres and about 45,500 TB beds available in medical institutions and TB hospitals etc. Essential material and equipments and anti-TB drugs for effective treatment of TB patients are being supplied to TB centres of the States/UTs and TB clinics run by voluntary organisations.

13.12 The programme for strengthening of ophthalmic treatment facilities initiated under the national *Control of Blindness Programme* was continued during 1984-85. Ophthalmic equipment has been provided to 2000 PHCs and 404 district hospitals. Ophthalmic departments of 60 medical colleges were upgraded and 9 regional institutions and 37 training schools set up under the programme by the end of 1984-85. Against a target of 12.50 lakh cataract operations for 1984-85, 10.12 lakh operations were reported performed during the year.

Plan Outlay for 1985-86

13.13 For the Annual Plan 1985-86, an outlay of Rs. 608.74 crores has been provided for the health sector as against the provisions of Rs. 548.70 crores and anticipated expenditure of Rs. 534.44 crores for 1984-85, as shown below :

TABLE 13-2
Break-up of outlay and expenditure

Year	Centre	States	Union Territories	(Rs. in crores)
				Total
1	2	3	4	5
1984-85				
Outlay	167.00	340.68	41.02	548.70
R.E.	166.62	334.52	33.30	534.44
1985-86				
Approved Outlay	200.00	366.96	41.78	608.74

Physical Programme for 1985-86

Rural Health

13.14 The targets for Madhya Pradesh, Tripura, Andaman & Nicobar Islands and Dadra & Nagar Haveli in respect of Sub-Centres and for Madhya Pradesh, Maharashtra, Punjab and Pondicherry in respect of Primary Health Centres have yet to be fixed. Excluding targets for these States, 6132 additional Sub-Centres and 1446 additional Primary Health Centres are proposed to be set up in 1985-86. The targeted number of Community Health Centres for the entire country for 1985-86 is 298.

Multi-purpose Workers Training Scheme

13.15 The training of uni-level health workers into multi-purpose workers expected to conclude by 1983-84 spilled into the year 1984-85 also. Under the training programme, 72 districts still remained to be covered during the year 1985-86. Besides completion of this backlog, it is proposed to initiate the basic training of male multi-purpose workers and male health assistants required for the augmented infrastructural facilities under the rural health programme. Continuing education of PHCs staff and training of specialists and para-medical workers required for proper manning of the rural health care infrastructure, which made no effective progress hitherto, is expected to pick up during 1985-86.

Re-orientation of Medical Education

13.16 Under this programme, 106 medical colleges in the country adopted 3 adjunct PHCs each with the objective of exposing medical under-graduates to rural health problems and to give them an orientation to the needs of rural areas besides providing specialist out-patient services to the rural community. The programme implemented hitherto will be evaluated and monitored effectively to achieve its basic objectives.

Village Health Guides Scheme

13.17 Under the Village Health Guides Scheme, 3.72 lakh health guides were trained and positioned till the end of 1984-85 in 4170 PHCs against a target of 4810 PHCs. Additional 30,000 health guides would be trained during 1985-86.

School Health Services

13.18 Some of the States/UTs have been organising school health services. In view of the strategic importance of this programme, a pilot scheme taken up by the Health Ministry some time in 1982 with SIDA assistance was further strengthened in the year 1984-85. This pilot scheme, which is under implementation in 100 PHCs, will continue in the year 1985-86. It will be evaluated thereafter to help States/UTs to take up a more comprehensive programme based on the feedback from the pilot project.

Control of Communicable Diseases

13.19 Spraying operations of all the rural areas with an annual parasitic index of two and above and augmented anti-larval measures in the urban areas, besides radical treatment of the fever cases, will continue during 1985-86 under the Malaria Control Programme. The impact of effective remedial measures introduced based on a comprehensive review of the programme in the year 1982 and the dent made on malaria control with the Centre's additional assistance for meeting fully the cost of BHC insecticide since 1983-84 would need to be evaluated.

13.20 The strategy of anti-larval measures with chemical larvicides at weekly intervals for control of filariasis in urban areas would continue during 1985-86. 184 control units, 27 survey units and 135 clinics were set up under the programme till 1984-85. It is proposed to establish additional 10 control units, one survey unit and 50 clinics during 1985-86. The experimental projects initiated in three selected districts in the country with the objective of developing a suitable strategy for tackling the problem of rural filariasis are reported progressing and would continue during 1985-86.

13.21 The strategy of early detection and regular treatment of leprosy cases would be further intensified during 1985-86. Revamped administrative and organisational arrangements and systematic monitoring of the programme would ensure optimum utilisation of the infrastructural facilities set up under the programme. It is targeted to detect and bring under treatment additional 3.82 lakh leprosy cases during 1985-86. Establishment of additional 41 leprosy control units, 28 Survey, Education and Treatment (SET) Centres, 45 urban leprosy centres, 106 modified leprosy control units and 55 district leprosy office units has been targeted for 1985-86.

13.22 The strategy of effective treatment of all radiologically active TB cases, including sputum positive cases, would be pursued with vigour during 1985-86. It is targeted to detect and bring under treatment additional 14.00 lakh TB cases and supply latest anti-TB drugs viz., Rifampicin and Pyrazinamide, and X-Ray and other equipments to States/UTs during 1985-86. A provision of Rs. 11 crores has been made in the Central sector for this purpose in the Annual Plan for 1985-86.

13.23 The strategy of developing various services at peripheral, intermediate and central levels for augmentation of preventive, promotive and curative services initiated under the Control of Blindness Programme would continue. Provision of ophthalmic equipment to additional 1000 primary health centres and strengthening of 30 Eye Banks is envisaged for 1985-86. It is also proposed to conduct 13.58 lakh cataract operations during the year.

Guinea Worm Eradication Programme

13.24 The active case searches were conducted in 1984 in the 7 endemic States of Andhra Pradesh,

Karnataka, Gujarat, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu. The independent appraisal of the programme undertaken in 1985 showed Tamil Nadu free from disease as no indigenous base of guinea worm was reported from that State during the last three years. During 1985-86, active case search, provision of safe water supply in the affected villages, chemical treatment of drinking water, health education of the community and management of cases by use of bandages will continue.

Research

13.25 Supportive research activities to ensure effective implementation of high priority programmes like control of communicable diseases, family planning etc., have been accorded a high priority. For strengthening and further augmenting various research activities initiated by the Indian Council of Medical Research, an allocation of Rs. 30 crores has been made for 1985-86, which represents a steep increase over the previous year's level.

Medical Education

13.26 Funds have been provided in State Plans for improvement of facilities in terms of staff, equipment and buildings of the medical colleges and the attached teaching hospitals to meet the requirements of the Medical Council of India. Schemes taken up by some of the States for strengthening post-graduate teaching and curative facilities in specialities and selective super-specialities will continue during 1985-86. The programme to monitor the benefits accruing to the candidates belonging to Scheduled Castes/Scheduled Tribes seeking admission to under-graduate medical education courses through the programme of pre-examination training scheme taken up by Government of India 1984-85 would continue.

Hospitals and Dispensaries

13.27 Provision has been made for continuing/further strengthening the schemes for augmentation of diagnosis and curative facilities in the medical

institutions under the control of the Ministry of Health in Delhi, Chandigarh, Pondicherry and other Metropolitan cities. Provision has also been made for further improvement of available facilities/opening additional dispensaries under the C.G.H.S. Scheme. Besides, provision has been made in the State Plans for further augmentation of curative care facilities and establishment of additional hospitals and dispensaries, depending upon the local needs of the population.

Indian Systems of Medicine and Homoeopathy

13.28 Financial assistance for programmes for promotion of research, standardisation of drugs, production of medicines and development of under-graduate and post-graduate educational facilities would be continued during 1985-86.

13.29 The likely achievement vis-a-vis the targets for 1984-85 and the targets proposed for the year 1985-86 in respect of programmes of rural health and control of communicable diseases are given in Annexure 13.1.

FAMILY WELFARE

13.30 Population control has been one of the strategic elements in developmental Planning in our country. India's population, which was 685 million in 1981, has increased to about 745 million in 1985. The birth rate of 33.6 per thousand of population and death-rate of 11.9 per thousand population in 1983 as per Sample Registration scheme estimates leaves the growth rate of India at alarmingly high level of 21.7 per thousand for that year, or 2.17%. The Seventh Plan has laid emphasis on reduction in the growth rate of the population and this objective will be vigorously pursued.

Performance Review

13.31 There was a rapid fall in the achievement of family welfare programmes prior to the Sixth Plan, but from 1980-81 onwards there has been a marked improvement in the performance as can be seen from Table 13.3 below.

TABLE 13-3
Family Welfare achievements

Items	(Fig. in millions)					
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85*
1	2	3	4	5	6	7
Sterilisation	1.78	2.05	2.79	3.98	4.53	4.05
I.U. Ds	0.63	0.63	0.75	1.10	2.13	2.56
Conventional contraceptive Users (C.C. Users)	2.99	3.72	4.44	5.77	7.66	8.38
Oral Pills Users (OP Users)	0.08	0.09	0.12	0.18	0.55	0.93

*Provisional figures.

13.32 The effective family planning couple protection rate rose from 22.5 per cent in March, 1980 to 29.2 per cent in March, 1984. During 1983-84,

the couple protection rate went up by 3.3 percentage points and the increase in 1984-85 was 2.7 percentage points. The couple protection rate at the close

of 1984-85 was 31.9 per cent. The target is to achieve couple protection rate of 42 per cent by end of Seventh Plan. There is a general awakening in favour of this programme and most of the States/UTs are implementing this programme more vigorously.

13.33 One of the important aspects of Family Welfare Programme is the promotion of health of mothers and children as it creates a sense of security in the minds of parents that the children born will live a healthy life, which, in turn, will contribute greatly to the acceptance of small family norm as a way of life. The MCH programme has started showing results in terms of its impact on the infant and maternal mortality. The infant mortality as per SRS, which was 129 per thousand in 1978, came down to 105 in 1982. The goal is to reduce it to below 60 by 2000 AD. Greater effort will have to be made to improve and enlarge the MCH services with special emphasis on immunisation, nutrition and control of communicable diseases, particularly diarrhoeal diseases, by ORT therapy. The sex ratio of females per 1000 males has registered improvement according to 1981 Census to 933 as compared to 930 in 1971.

13.34 The progress made so far during 1985-86 under family Planning and MCH Schemes is summarised in Annexure 13.2.

Financial Review

13.35 In view of the importance attached to the Family Welfare Programme, the Plan outlay for it was stepped up substantially from year to year. Against the annual Plan allocations of Rs. 140.00 crores in 1980-81, Rs. 155.00 crores in 1981-82, Rs. 245.00 crores in 1982-83 and Rs. 385.00 crores during 1983-84, the actual expenditure was Rs. 140.89 crores, Rs. 193.02 crores, Rs. 288.32 crores and Rs. 382.98 crores respectively. Various new initiatives have been taken for intensification and expansion of the programme by way of enhancement of rates of compensation money for sterilisations, IUDs, provision of greater mobility to family welfare staff by supply of new vehicles and increase in POL charges, constitution of cash awards to States to promote healthy competition among them, innovative publicity, etc. An outlay of Rs. 438.00 crores was provided for 1984-85 and the provisional figure of expenditure is Rs. 440.02 crores.

Physical targets for 1985-86

13.36 The details of the targets fixed for 1985-86, both in respect of family planning and MCH Schemes, are indicated in Annexure 13.3.

13.37 To give the programme support for realising the targets, measures will be taken to streamline the existing services delivery system to make it more effective and purposeful and encourage people to accept the programme. Greater participation of

voluntary organisations, opinion leaders and the community in the programme will be fostered and promoted.

13.38 In addition to work on completing on-going projects and maintaining the facilities and services already established, the following expansion activities will be taken up in 1985-86 :

- (i) Setting up of 11000 sub-centres.
- (ii) Training of 40,000 traditional birth attendants.
- (iii) Sanction of 25 ANM Training Schools and 5 LHV Training Schools.
- (iv) Revamping of the infrastructure for delivery of health & family welfare services in urban slums.
- (v) Construction of building for 200 Rural Family Welfare Centres, 35 ANM Training Schools, 50 PHCs Annexes, and 5 Lady Health visitor (LHV) Training Schools.
- (vi) Extension of the Post partum programme to sub-divisional hospitals.
- (vii) Performance target of 5.5 million sterilisations, 3.25 million IUD and raising the level of C.C. Users to 12.0 million by the end of 1985-86.
- (viii) Commencing a new Area Project with World Bank assistance in West Bengal.
- (ix) Strengthening of evaluation machinery and programme staff at Central and State Levels.
- (x) Greater coverage under MCH.

Outlays for 1985-86

13.39 Keeping in view the physical targets, an outlay of Rs. 500.00 crores has been provided for the Family Welfare Programme for 1985-86, which is an all time record outlay for this programme, against an allocation of Rs. 438.00 crores for 1984-85. The Scheme-wise break-up of the outlay for 1985-86 is given below :

Sl. No.	Schemes	(Rs. lakhs) Allocation
1.	Services & Supplies	25336.76
2.	Training	275.00
3.	Mass Education	1206.00
4.	Research & Evaluation	325.24
5.	Maternity & Child Health	9592.00
6.	Organisation	565.00
7.	Village Health Guides Scheme	5500.00
8.	Area Projects	7200.00
	Total	50000.00

NUTRITION

Review of Annual Plan—1984-85

13.40 The approved outlay for the nutrition programmes in the Annual Plan 1984-85 was Rs. 14022.80 lakhs, which included Rs. 50.00 lakhs for the Department of Food in the Central Sector, Rs. 0.80 lakh for the Applied Nutrition Programme in the Centrally Sponsored Sector of the Ministry of Rural Development and Rs. 13972.00 lakhs for the State Sector feeding programmes.

Central Sector

13.41 Against the approved outlay of Rs. 50.00 lakhs for the nutrition programmes of the Department of Food, the anticipated expenditure is, Rs. 29.19 lakhs. The main reason for the under-utilisation of the outlay is that the production of iron fortified salt could not be taken up. The scheme of integrated education in nutrition, health, hygiene and sanitation also could not be taken up for implementation as it was not finalised.

13.42 Diet and nutrition surveys were conducted in the rural areas of Rewa and Satna districts of Madhya Pradesh with particular reference to the consumption of the toxic pulse, i.e. *Lathyrus Sativus*, and prevalence of lathyrism. A study was also conducted to ascertain the dietary patterns of the tribals in the Ratlam district of the State. The Food and Nutrition Atlas for the States of Tripura and Orissa and the Union Territories of Delhi and Dadra and Nagar Haveli was also brought out.

13.43 The production of miltone, a nutritious milk like beverage comprising 50 per cent groundnut protein and 50 per cent animal milk, was about 28.00 lakh litres during 1984-85 at the five plants at Bangalore, Hyderabad, Ranchi, Calcutta and Kanpur.

13.44 About 12,855 tonnes of energy, Ready to Eat (RTE) and weaning foods were produced for use in the supplementary feeding programmes in the States. Fortification of milk with Vitamin 'A' to combat nutritional blindness was continued at Mother Dairy, Delhi. The Delhi Milk Scheme and Mother Dairy, Calcutta also took up fortification of milk with Vitamin 'A'. The total quantity fortified was about 11.2 lakh litres per day. The project proposal on commercial production of iron fortified salt for combating iron deficiency anaemia was finalised during the year and a plant for production of 15,000 metric tons of iron fortified salt per year will be set up during 1985-86.

13.45 Thirty one mobile food and nutrition extension units located in different States of the country continued their demonstration programmes to disseminate knowledge on nutrition, scientific methods of cooking, food hygiene and promotion of suitable

dietary habits in collaboration with State Governments, voluntary organisations and other institutions. Upto 1984-85, these units organised 14,833 demonstrations covering 4.84 lakh beneficiaries.

13.46 The Centrally sponsored scheme of Applied Nutrition Programme under the Ministry of Rural Development continued to operate in the Union Territories.

State Sector

13.47 Under the State Sector, there are two supplementary feeding programmes viz : the Special Nutrition Programme (SNP) and the Mid-day Meals Programme (MDM) forming part of the Minimum Needs Programme. The Special Nutrition Programme covers pre-school children in the age group 0—6 years and pregnant women and nursing mothers. The scheme provides supplementary food yielding 300 calories with 8—12 grams of protein per child and 500 calories with 25 grams of protein per mother per day for 300 days in a year. The Mid-day Meals scheme is for school children in the age group 6—11 years. It offers supplementary food consisting of 300 calories and 8—12 grams of protein per child per day for 200 days in a year. Against the approval outlay of Rs. 13972.00 lakhs for both the programmes, the revised estimate of the expenditure is Rs. 14698.00 lakhs.

13.48 The SNP, which had a coverage of 8 million beneficiaries at the beginning of the Sixth Plan, reached a target of 9 million by March 1983 and 11 million by the end of the Plan. The Integrated Child Development Services (ICDS) programme was expanded by adding 197 projects during the year 1984-85, taking the total number of projects to 1019 by the end of the year. The total coverage under SNP in these projects was 6.2 million beneficiaries. Attempts were also made to restructure SNP outside ICDS by integrating it with supportive health and educational activities.

13.49 The Mid-day Meals Programme for school children in the age group 6-11 years achieved a coverage of about 17.2 million by March 1982 and 18 million by March 1983. The anticipated coverage by March 1984 was 20 million beneficiaries. In 1984-85, more emphasis was placed on consolidation of the programme at the March 1984 level with supportive services like health and water facilities in schools.

13.50 Based on the recommendations of an Expert Group constituted in 1984 by the Ministry of Social and Women's Welfare, the costs of nutrition supplementation in the supplementary feeding programmes were revised with effect from April 1985. The unit costs have been revised from 35 paise to 75 paise per child, from 60 paise to 120 paise in the case of a severely malnourished child and from 50 paise to 105 paise per mother per day.

Annual Plan 1985-86

13.51 An outlay of Rs. 31337.00 lakhs has been approved for Nutrition in the Annual Plan 1985-86.

The following Table gives the break-up of the approved outlay and anticipated expenditure for 1984-85 and the approved outlay for 1985-86 ;

TABLE 13.5
Outlays and Expenditure—Nutrition

Sl. No.	Sector	1984-85		1985-86
		App. Outlay	Revised Estimates	Approved Outlay
1	2	3	4	5
1.	Central	50.00	29.19	78.00
2.	Centrally Sponsored	0.80	—	—
3.	States	13539.00	14239.00	30538.00
4.	Union Territories	433.00	459.00	721.00
5.	Total (States + UTs)	13972.00	14698.00	31259.00
6.	Grand Total	14022.80	14727.19	31337.00

Central Sector

13.52 An outlay of Rs. 78.00 lakhs has been provided for the nutrition programmes of the Department of Food in the Central Sector. The Department would complete the evaluation of the existing mobile extension units and fully operationalise the four units set up during 1984-85.

13.53 A plant with a capacity of 15,000 M.T. per annum for the production of iron fortified salt is to be set up in Tamil Nadu and measures would be taken for commercial distribution of this salt.

13.54 A target of 15 lakh litres per day for fortification of milk with Vitamin 'A' is proposed against the 1984-85 level of 11.2 lakh litres. The scheme of Integrated Education in nutrition is also likely to be finalised and implemented.

State Sector

13.55 An amount of Rs. 31259.00 lakhs has been approved for the nutrition programmes in the State Sector.

13.56 The Special Nutrition Programme will be extended to 200 additional ICDS blocks, making the programme operational in 1219 blocks by the end of the year. The target for SNP would be around 12 million beneficiaries, which would include around 8 million in ICDS blocks. Expansion of SNP centres outside ICDS would be discouraged and efforts would be made to upgrade them to the level of an ICDS anganwadi centre, through provision of other essential inputs like immunisation, health care, education and water supply. Wherever possible, these centres would be brought within the ambit of ICDS. Efforts under MDM would also be made to integrate it with other essential services like health cover and nutrition education to make the programme more effective. Whereas States like Andhra Pradesh and Bihar have taken a decision to discontinue MDM programme, the same would be taken up on a large scale in the States of Tamil Nadu and Gujarat.

13.57 The approved outlay and revised estimate for 1984-85 and the approved outlay for 1985-86 for the Central and State Sectors are shown in Annexures 13.4 and 13.5 respectively.

Targets for 1985-86 and achievement during 1980-84 and 1984-85—Health Care Programme

Item	Unit	1980-84 Actuals	1984-85		1985-86 Target (Addl.)
			Target (addl.)	Anticipated achievement (addl.)	
1	2	3	4	5	6
I. RURAL HEALTH					
1. Health Guides Scheme					
(a) Health Guides Trained	Nos.	199452	—	27349	30000
(b) PHCs covered	Nos.	1723	—	118	—
2. Multi-purpose Workers Scheme					
(a) Districts covered	Nos.	166	—	22	72 (anticipated)
(b) Key Trainers Trained	Nos.	416	96	20	50
(c) Districts MDS trained	Nos.	455	50	30	50
(d) DEMO/Dy. DEMO	Nos.	99	200	8 (upto 30-9-84)	100
(e) MO PHCs	Nos.	6590	350	752	100
(f) B.E.Es	Nos.	1298	100	145	Nil
(g) H. A (M)	Nos.	6226	300	608	200
(h) HA (F)	Nos.	3861	100	838	200
(i) HW (M)	Nos.	22480	1000	3705	500
II. CONTROL OF COMMUNICABLE DISEASES					
(a) N. M. E. P.					
(i) NMEP (Rural) Districts*		415	—	—	—
(ii) NMEP (Urban) Towns		130	2	3	10
(b) Filariasis Control					
(i) Control units		180	5	8	10
(ii) Survey Units		27	1	1	1
(iii) Filariasis clinics		103	30	12	50
(c) Prevention of Blindness					
(i) Mobile Units	Nos.	80	—	—	—
(ii) PHC to be strengthened	Nos.	1670	330	2000	1000
(iii) District hospitals to be strengthened	Nos.	360	44	404	—
(iv) Medical Colleges Assisted	Nos.	51	9	8	—
(v) Training Institutes	Nos.	35	2	37	—
(vi) Regional Institutes	Nos.	6	4	9	—
(vii) District Mobile Units	Nos.	—	30	30	—
(viii) State Ophthalmic Cells	Nos.	—	18	18	—
(d) Hospital beds	Nos.	500628@	NA	NA	NA
(e) Medical Colleges	Nos.	106@	Nil	Nil	Nil

@progressive total

*Malaria units are established at district headquarters and conform to geographical boundaries of all the districts and NMEP component exists at each district headquarters.

Progress under Family Planning and MCH

(Figures in '000)

Programme	Target for 1984-85	Achievements*		Percentage Increase (+) or Decrease (—)	Percentage achvt. of annual target
		1984-85	1983-84		
1	2	3	4	5	6
I. F. P. Methods					
Sterilisation	5823	4050	4532	(—)10.6	69.5
IUD Insertions	3183	2564	2134	(+)20.2	80.6
C.C. Users (Equivalent)	10000	8378	7661	(+)9.4	83.8
(i) Under Free Distribution Scheme	5500	4599	3889	(+)18.2	83.6
(ii) Under Commercial Distribution Scheme	4500	3779	3772	(+)0.2	84.0
Oral Pill Users (Equivalent)	1000	931	554	(+)67.9	93.1
II. MCH Activities					
IMMUNISATION					
(i) Tetanus Immunisation for expectant mothers	13026	8382	7650	(+)9.6	64.3@
(ii) DPT Immunisation for Children	14506	10820	10380	(+)4.2	74.6@
(iii) DT Immunisation for Children	13060	10175	9864	(+)3.2	77.9@
B. Prophylaxis against Nutritional anaemia among					
(i) Women	13000	16158	15825	(+)1.9£	124.4@
(ii) Children	13000	15792	14216	(+)11.0£	121.6@
C. Prophylaxis against Blindness due to Vit. 'A' deficiency					
Its Dose	27000	23326	14640	(+)46.2£	86.4@
D. Polio	12000	8376	7097	(+)18.0	69.8@
E. Typhoid	11000	6287	5441	(+)15.5£	57.2@
F. T.T. (10 years)	5006	3232	2594	(+)24.6£	73.8@
G. T.T. (16 years)	3040	2107	1606	(+)31.2£	77.6@

*Figures provisional.

£Excluding the States for which the corresponding figures are not available.

@Worked out after excluding targets in respect of States/UTs. for which performance figures have not been received.

Family Planning & MCH targets for 1985-86

(Figures in Millions)

I. Family Planning

(i) Sterilisations	5.56
(ii) I.U.D.	3.24
(iii) C.C. Users	10.47
(iv) O.P. Users	

II. M.C.H.

1. Immunisation

(i) T.T. (P.W.)	12.86
(ii) D.P.T. of Children	14.04
(iii) Polio	14.04
(iv) B.C.G	14.04
(v) Measles	2.32
(vi) DT of Children	11.9
(vii) Typhoid	11.9
(viii) T.T.S.C. (10 yrs)	5.55
(ix) T.T.S.C. (16 yrs)	3.26

2. Prophylaxis against nutritional Anaemia among—

(a) Children	14.00
(b) Women	14.00

3. Prophylaxis against blindness due to Vitamin 'A' deficiency

25.00

Outlay and Expenditure in the Central Sector—Nutrition

Programme	(Rs. in lakhs)		
	1984-85		1985-86
	Outlay	Revised Estimate	Outlay
	2	3	4
A. Central Schemes—Nutrition Programme of Department of Food			
I. Nutrition Education and Extension			
(a) Mobile Food and Nutrition Extension units	2.50	5.00	2.00*
(b) Mass Media Communication and Extension	5.00	5.00	2.50*
(c) Integrated Nutrition Education	3.00	0.10	10.00
II. Production of Nutritious Beverages	7.00	9.00	25.00
III. Production of Nutritious Foods	—	—	1.00
IV. Fortification of Foods			
(a) Fortification of Salt	16.00	3.50	24.00
(b) Fortification of Milk	6.00	2.00	9.00
(c) Fortification of other foods	—	0.09	—
V. Survey, Research and Evaluation			
(a) Diet and nutrition survey	—	—	0.50
(b) Nutrition Planning	0.50	0.50	—
(c) Research and Development Activities and Evaluation	10.00	4.00	4.00
(d) Directional Charges	—	—	—
Total	50.00	29.19	78.00
B. Centrally Sponsored Scheme—			
Nutrition Programme of Department of Food			
Applied Nutrition Programme	0.80	—	—
Grand Total	50.80	29.19	78.00

*Now form part of the Seventh Plan outlay for the scheme Integrated Nutrition Education.

Outlay and Expenditure in the State Sector—Nutrition

(Rs. in lakhs)

Sl. No.	State/UT	1984-85		1985-86 Approved Outlay
		Approved Outlay	Revised Estimate	
1	2	3	4	5
1.	Andhra Pradesh	3540	3190	372
2.	Assam	232	232	120
3.	Bihar	600	280	558
4.	Gujarat	366	349	11272
5.	Haryana	145	145	429
6.	Himachal Pradesh	80	77	30
7.	Jammu & Kashmir	40	40	150
8.	Karnataka	1187	864	2445
9.	Kerala	362	362	538
10.	Madhya Pradesh	360	547	608
11.	Maharashtra	744	800	944
12.	Manipur	30	30	30
13.	Meghalaya	42	42	46
14.	Nagaland	60	60	66
15.	Orissa	200	200	200
16.	Punjab	76	76	252
17.	Rajasthan	95	95	108
18.	Sikkim	30	30	45
19.	Tamil Nadu	4430	5940	10337
20.	Tripura	160	160	275
21.	Uttar Pradesh	410	370	843
22.	West Bengal	350	350	870
Total : States		13539	14239	30538
1.	Andaman Nicobar Islands	9.00	9.00	12.50
2.	Arunachal Pradesh	25.00	25.00	27.50
3.	Chandigarh	22.00	22.00	48.50
4.	Dadra & Nagar Haveli	5.00	5.00	8.50
5.	Delhi	270.00	302.00	523.00
6.	Goa, Daman & Diu	22.00	17.00	20.00
7.	Lakshadweep	2.50	1.50	5.00
8.	Mizoram	30.00	30.00	33.00
9.	Pondicherry	47.50	47.50	43.00
Total : UTs		433.00	459.00	721.00
Grand Total		13972.00	14698.00	31259.00

CHAPTER 14

HOUSING, URBAN DEVELOPMENT AND WATER SUPPLY

HOUSING

Reivew of Plan Performance in 1984-85

The Annual Plan 1984-85 provided for an outlay of Rs. 433.45 crores for Housing comprising Rs. 349.02 crores in the States and Union Territories Sector and Rs. 84.43 crores in the Central Sector. The outlay for Rural House-site-cum-House Construction Scheme, an item of the Minimum Needs Programme as also of the 20-Point Programme, was Rs. 119.71 crores. Against the approved outlay of Rs. 433.45 crores in 1984-85, the anticipated expenditure is Rs. 353.06 crores in the States and U.Ts Sector and Rs. 91.55 crores in the Central Sector,

making a total of Rs. 444.61 crores. The expenditure on the Rural House site-cum-House Construction Scheme is placed at Rs. 92.64 crores.

14.2 It is estimated that sites were allotted to 10.35 lakh families and assistance for construction was provided to 4.32 lakh families during the year 1984-85. The targets for these schemes for the year were 7.98 lakhs and 4.73 lakhs respectively.

14.3 According to the data reported by the State Governments and Union Territory Administrations, the physical achievements during 1984-85 in respect of certain important schemes were as follows :—

TABLE 14-1

Housing—Achievements in 1984-85

SCHEME	Unit of reporting	Achievement in 1984-85
1	2	3
1. Economically Weaker Section's Housing	Dwelling units in lakhs	1.84
2. Low Income Group Housing	Dwelling units (Nos.)	10422*
3. Middle Income Group Housing	Do.	5520*
4. Village Housing Project	Do.	3661*
5. Subsidised Industrial Housing	Do.	5592*
6. Rental Housing	Do.	7221*
7. Rural House-site cum-House Construction scheme		
(a) House-sites	Families in lakhs	10.35
(b) House Construction	Do.	4.32

*Anticipated achievements as reported in the Draft Seventh Five Year Plan (1985-90) and Annual Plan (1985-86) Documents of States/Union Territories.

Annual Plan 1985-86

14.4 The Annual Plan 1985-86 provides for an outlay of Rs. 425.89 crores for Housing, comprising Rs. 379.73 crores in the States and Union Territories Sector and Rs. 46.16 crores in the Central Sector.

14.5 Under the States and U.Ts Sector an outlay of Rs. 99.95 crores is envisaged for the Rural House-site-cum-House Construction Scheme in 1985-86. The targets are to allot house-sites to 5.80 lakh families and to provide construction assistance to 4.13 lakh families during the year.

14.6 The balance of the outlay of Rs. 279.78 crores in the States Sector is for schemes like the Integrated Subsidised Housing Scheme for Industrial Workers and Economically Weaker Sections of the Community, Low Income Group and Middle Income Group Housing Schemes, Rental Housing Scheme & Village Housing Project Scheme.

14.7 The Central Sector Plan provides for an outlay of Rs. 15.00 crores for the Housing and Urban

Development Corporation (HUDCO). The Corporation proposes to sanction loans to the extent of Rs. 350 crores in 1985-86 as against Rs. 314.81 crores in 1984-85. The loans would be over and above the outlay provided for under the State Plans. The other important scheme in the Central Sector relates to General Pool Office and Residential accommodation for which an outlay of Rs. 30.00 crores has been provided.

14.8 Annexure 14.1 gives details of the approved outlay and anticipated expenditure for 1984-85 as well as the approved outlay for 1985-86 at the Centre and in the States and Union Territories.

URBAN DEVELOPMENT

Review of Plan Performance in 1984-85

14.9 The Annual Plan 1984-85 envisaged an outlay on Urban Development of Rs. 248.82 crores (including Rs. 10 crores under the Central Incentive Scheme)—Rs. 219.12 crores in the States and U.Ts

Sector and Rs. 29.70 crores in the Central Sector. The outlay for the Scheme of Environmental Improvement of Slums, an item of the Minimum Needs Programme as also of the 20-Point Programme, was Rs. 52.32 crores. Against the total outlay of Rs. 248.82 crores, the anticipated expenditure is Rs. 258.84 crores, the increase being entirely in the States and U. Ts Sector. The anticipated expenditure on the Environmental Improvement of Slums Scheme is Rs. 51.34 crores. Under this scheme, against the target of covering a population of 22.30 lakhs (including 4.00 lakhs under the Central Incentive Scheme) in the year 1984-85, the number of people who benefited during the year is estimated to be 24.15 lakhs, showing an achievement in excess of the target to the extent of about 8 per cent.

Annual Plan 1985-86

14.11 The Annual Plan 1985-86 envisage an outlay of Rs. 272.04 crores—Rs. 239.20 crores in the States and U.Ts Sector and Rs. 22.84 crores in the Central Sector for the Urban Development Programme. For Environmental Improvement of Slums, an outlay of Rs. 37.83 crores has been included in the States and U.Ts Plans. The Seventh Plan envisages a step-up in the per capita expenditure from Rs. 250 to Rs. 300. The target is to cover an additional 14.99 lakh slum population.

14.12 The other programmes in the States and U.Ts Sector include provision of loans and grants to local bodies for development schemes, matching provision towards the Centrally sponsored scheme of Integrated Development of Small and Medium Towns, preparation of Master Plans and Integrated Development of Calcutta Metropolitan Area and State Capital Projects.

14.13 The outlay in the Central Sector is mainly for the Integrated Development of Small and Medium Towns (IDSMT) and the National Capital Region (NCR) Schemes. Under IDSMT, 237 towns had been provided assistance till 31-3-1985. The outlay

proposed for 1985-86 is meant not only to meet the spillover commitments of the towns already covered but also for providing assistance to additional towns that are likely to be selected for development during the year. For the National Capital Region (NCR), a Statutory Planning Board has been constituted under the Chairmanship of the Minister for Urban Development and the detailed development programmes for the region are under preparation. The NCR plan envisages shift of economic activity from the core area of Delhi to regional towns located in Haryana, Rajasthan and Uttar Pradesh.

14.14 Annexure 14.2 gives details of the approved outlay and anticipated expenditure for 1984-85 as well as the approved outlay for 1985-86 for Urban Development in the States, U.Ts and the Central Sector.

WATER SUPPLY AND SANITATION

Review of Progress in 1984-85

14.15 The Annual Plan 1984-85 included an outlay of Rs. 1141.81 crores—Rs. 843.74 crores in the State/U.T. Sector and Rs. 298.07 crores in the Central Sector—for water supply and sanitation programmes. Of this, Rs. 366.08 crores in the State/U.T. Sector and Rs. 292.50 crores in the Central Sector under the Accelerated Rural Water Supply Programme (ARP) were meant for provision of drinking water supply to the identified problem villages under the Minimum Needs Programme (MNP). The anticipated expenditure during the year is Rs. 1097.69 crores—Rs. 804.23 crores in the State/U.T. Sector and Rs. 293.46 crores in the Central Sector (excluding the expenditure on Prevention and Control of Water and Air Pollution which is now shown under Science and Technology). This includes Rs. 650.65 crores under the Minimum Needs Programme—Rs. 358.15 crores in the State/U.T. Sector and Rs. 292.50 crores in the Central Sector (ARP). The scheme-wise break-up of the outlays and anticipated expenditure for the Annual Plan 1984-85 is given in Table 14.2 below :—

TABLE 14.2
Approved Outlays and Expenditure in respect of Water Supply and Sanitation Schemes

Scheme	1984-85		(Rs. crores)
	Approved Outlay	Anticipated expenditure	Approved Outlay
1	2	3	4
1. State/U.T. Plan			
(i) Rural Water Supply and Sanitation		394.21	370.50
(ii) Of which M.N.P.		(366.08)	(356.71)
(iii) Urban Water Supply and Sanitation		449.53	467.08
Total State Plan :		843.74	838.30
2. Central Plan			
(i) Centrally Sponsored Accelerated Rural Water Supply Programme		242.50	298.88
(ii) Incentive Bonus Scheme		50.00	—
(iii) Other Programmes		5.57	1.12*
Total Central Plan :		298.07	300.00
Grand Total		1141.81	1138.30

*Excluding outlay for Prevention and Control of Water and Air Pollution which has been transferred to S & T Sector.

14.16 According to the reports from the State/U.T. Governments, about 47,000 villages, including 40,152 problem villages, were provided with at least one assured source of safe water supply facility under MNP during 1984-85. Water Supply schemes in 280 towns (including augmentation schemes) and sewerage/drainage schemes in 40 towns (including augmentation schemes) are also reported to have been completed during the year.

Annual Plan 1985-86

14.17 The International Drinking Water Supply and Sanitation Decade (1981-91) is already half-way through and most of its remaining period will fall within the Seventh Plan period. In view of the objective of the decade, the emphasis on the provision of safe drinking water and adequate sanitation facilities in rural and urban areas would continue during the Seventh Plan. Keeping in view the overall resource constraint and other competing demands, an outlay of Rs. 838.30 crores in the State Sector and Rs. 300 crores in the Central Sector has been provided for water supply and sanitation for 1985-86. This includes Rs. 655.59 crores for the Minimum Needs Programme—Rs. 356.71 crores in the State Sector and Rs. 298.88 crores under the Centrally Sponsored Accelerated Rural Water Supply Programme—for providing safe drinking water supply in the rural areas. The State-wise break-up of the approved outlays and anticipated expenditure for 1984-85 as well as the approved outlay for 1985-86 for water supply and sanitation is given in Annexure 14.3 and the overall position indicated in Table 14.2.

Rural Water Supply and Sanitation

14.18 In view of the 'International Decade' objective of providing safe drinking water to the entire rural population, the distinction between problem and other villages will virtually disappear during the Seventh Plan. However, to achieve this objective concerted efforts are necessary and certain order of priorities will have to be fixed. In view of the resource constraint, it has been decided to accord first priority to the spillover identified problem villages and the second priority to those, which have been identified as problem villages subsequent to 1-4-1980 based on the existing criteria and the third priority to the augmentation schemes in other villages which may be taken up during the Seventh Plan. The objective during the Annual Plan 1985-86 would be to cover only the spillover and the subsequently identified problem villages in those States which have a substantial number of such villages. The other States may, however, take up augmentation/improvement schemes also. It is also essential to ensure that the poorer sections of the society like Scheduled Castes and Scheduled Tribes and landless agricultural labourers have an equal access to the facility of water supply. Where necessary, additional sources/water collection points for enabling the poor to obtain access to safe drinking

water should be separately provided, if access to the community sources provided under the general scheme for drinking water supply to villages is difficult for them. The existing arrangements for operation and maintenance of the water supply system are far from satisfactory. Special attention will therefore, have to be paid to this aspect of water supply. A provision under MNP upto the maximum of 10% of the outlay has been allowed in the Plan for this purpose.

14.19 The Annual Plan 1985-86 provides an outlay of Rs. 356.71 crores under MNP for the Rural Water Supply Programme, including Operation and Maintenance. This will be further supplemented by Central Assistance of Rs. 298.88 crores under the Centrally Sponsored Accelerated Rural Water Supply Programme. The Annual Plan 1985-86 also provides for an outlay of Rs. 13.8 crores for low cost sanitation schemes in the rural areas.

Urban Water Supply and Sanitation

14.20 It is estimated that about 81 per cent of the urban population was provided with drinking water supply facilities by the end of the Sixth Plan. The objective of the Seventh Plan is to raise this level. The small and medium towns are growing at much faster rate and, therefore, the old system of water supply existing in these towns is not able to cope with the increasing demands and needs to be augmented.

14.21 The coverage of the urban population in respect of sanitation facilities is much lower, about 33 per cent at the end of the Sixth Plan. Keeping in view the great magnitude of the task, concerted efforts will be necessary and, in view of the severe resource constraint, it will not be possible to adopt very liberal norms and to adopt expensive or sophisticated water supply and sanitation services. It has, therefore, been decided to take up low cost sanitation schemes in the towns other than class-I cities. The Annual Plan 1985-86 provides for an outlay of Rs. 467.80 crores for urban water supply and sanitation schemes. In addition, Central Assistance will also be provided for the low cost sanitation scheme under the Centrally Sponsored Scheme of Integrated Development of Small and Medium Towns in the Urban Development Sector.

Central Sector

14.22 All the schemes in Central Sector, which were in operation during the Sixth Plan, except one viz., the Incentive Bonus Scheme, will continue during 1985-86. The Annual Plan 1985-86 provides for an outlay of Rs. 300 crores in the Central Sector, which includes Rs. 298.88 crores for the Centrally Sponsored Accelerated Rural Water Supply Programme and Rs. 1.12 crores for the other schemes viz., PHE Training (Rs. 0.65 crore). Handling Charges for WHO/UNICEF assisted drilling rigs (Rs. 0.25 crore). Urban Waste Disposal Project Management Cell (Rs. 0.02 crore) and Feasibility Studies on Rural Sanitation Demonstration Scheme (Rs. 0.20 crore).

Outlays on Housing—States, Union Territories and Central Sector

(Rs. in lakhs)

Sl. States No.	1984-85				1985-86		
	Total appd. outlay	M.N.P.	Total anti. expdr	M.N.P	Total appd. outlay	M.N.P	
1	2	3	4	5	6	7	8
1. Andhra Pradesh	6687	5800	6637	3557	5145	4600	
2. Assam	831	275	831	275	832	250	
3. Bihar	810	200	1310	140	2064	500	
4. Gujarat	2378	703	2378	1021	1765	750	
5. Haryana	653	111	719	111	729	65	
6. Himachal Pradesh	300	—	316	1	395	—	
7. Jammu & Kashmir	427	15	427	10	592	50	
8. Karnataka	2486	1302	2568	1774	2323	1500	
9. Kerala	1230	847	1230	239	1000	200	
10. Madhya Pradesh	1840	500	1737	580	1613	506	
11. Maharashtra	3771	266	3371	266	3751	400	
12. Manipur	220	—	222	—	200	—	
13. Meghalaya	289	1	289	1	290	—	
14. Nagaland	362	—	362	—	396	—	
15. Orissa	425	100	425	100	699	100	
16. Punjab	1140	156	1140	120	1160	74	
17. Rajasthan	540	100	540	100	690	125	
18. Sikkim	64	—	64	4	85	—	
19. Tamil Nadu	3294	1030	3280	353	3317	350	
20. Tripura	170	40	170	32	260	35	
21. Uttar Pradesh	2563	30	3063	306	3219	310	
22. West Bengal	700	175	700	145	2800	135	
Total : States	31180	11851	31779	9135	33325	9950	
1. A & N Islands	112	0.50	112	5.50	125	—	
2. Arunachal Pradesh	275	50.00	235	50	302.50	—	
3. Chandigarh	425.70	—	472.70	—	594	—	
4. Dadra & Nagar Haveli	22.10	13.50	22.10	2	30	2	
5. Delhi	2200	12.00	2076	12	2900	10	
6. Goa, Daman & Diu	200	12.00	169.30	15	190	6	
7. Lakshadweep	61	—	61.08	—	81	—	
8. Mizoram	124	5.00	124	5	160	2	
9. Pondicherry	255	27.00	255	39.50	265	25	
Total : U. Ts.	3721.80	120.00	3527.18	129	4647.50	45	
Total : States & UTs.	34901.80	11971.00	35306.18	9264	37972.50	9995	
Central Sector							
1. Housing & Urban Development Corporation (HUDCO)	1600	—	1600	—	1500	—	
2. National Building Organisation	40	—	36	—	36	—	
3. Hindustan Prefab Ltd.	50	—	40	—	40	—	
4. General Pool Office and Residential accommodation	3100	—	2858	—	3000	—	
5. Subsidised Housing Scheme for Plantation Workers	100	—	100	—	20	—	
6. Subsidised Housing Scheme for Dock Workers	7	—	—	—	—	—	
7. House Building Advance	3500	—	4500	—	—	—	
8. Science & Technology	25	—	—	—	—	—	
9. Training Institute for CPWD	19	—	19	—	15	—	
10. *International Co-operation Activities	2	—	2	—	5	—	
Total : Central Sector	8443	—	9155	—	4616	—	
Grand Total : States, UTs. and Central Sector	43344.80	11971	44461.18	9264	42588.50	9995	

Note :— *Rs. 2 lakhs in respect of International Cooperation Activities have been shown under Housing Sector. Hence the total outlay under Central Sector for Housing is Rs. 9155 lakhs instead of Rs. 9153 lakhs as shown in the Plan Budget of the Ministry of Finance.

Outlays on Urban Development—States, Union Territories and Central Sector

(Rs. in lakhs)

Sl. No.	States	1984-85				1985-86	
		Total Appd. Outlay	M.N.P.	Total anti. expdr.	M.N.P.	Appd. Outlay	M.N.P.
1	2	3	4	5	6	7	8
1.	Andhra Pradesh	1707	708	1707	708	1495	450
2.	Assam	94	24	94	24	250	40
3.	Bihar	199	70	248	70	300	100
4.	Gujarat	530	100	530	100	393	65
5.	Haryana	110	88	281	88	400	140
6.	Himachal Pradesh	190	10	194	10	185	15
7.	Jammu & Kashmir	675	30	676	41	700	40
8.	Karnataka	534	315	534	347	500	200
9.	Kerala	490	100	490	75	440	50
10.	Madhya Pradesh	473	160	450	425	1140	230
11.	Maharashtra	2325	650	2725	650	2500	700
12.	Manipur	50	10	72	7	80	70
13.	Meghalaya	45	10	45	10	56	10
14.	Nagaland	167	—	167	—	177	—
15.	Orissa	320	25	320	20	120	30
16.	Punjab	398	141	398	31	818	65
17.	Rajasthan	118	70	118	55	75	70
18.	Sikkim	38	6.60	38	7	35	5
19.	Tamil Nadu	3361	770	3305	170	3000	500
20.	Tripura	90	12	90	26	140	40
21.	Uttar Pradesh	1015	225	1015	289	2030	330
22.	West Bengal	700	249	700	550	1420	400
Total : States		13629	3773.60	14197	3703	16254	3550
1.	A & N Islands	—	—	—	1	28	3
2.	Arunachal Pradesh	2	—	2	—	2	—
3.	Chandigarh	—	—	—	—	37	—
4.	Dadra & Nagar Haveli	1.58	1.50	1.58	—	1	—
5.	Delhi	3240	425	3650	400	3400	200
6.	Goa, Daman & Diu	96	13	95.30	11	94	5
7.	Lakshadweep	—	—	—	—	—	—
8.	Mizoram	25	4	25	—	53	5
9.	Pondicherry	142.50	15	142.50	19	136	20
Total : U.Ts.		3507.08	458.50	3916.38	431	3751	233
Total : States & U. Ts		17136.08	4232.10	18113.38	4134	19909	3783
CMDA & State Capital Projects		4776	—	4801	—	4915	—
Total : States, U.Ts. and State Capital Projects		21912.08	4232.10	29914.38	4134	24844	3783
Central Sector							
1.	Environmental Improvement of Urban Slums	1000	1000	1000	1000	—	—
2.	Integrated Development of Small & Medium Towns	1600	—	1600	—	1800	—
3.	National Capital Region	150	—	150	—	400	—
4.	Research & Development	50	—	50	—	40	—
5.	Development of displaced persons colony	120	—	120	—	22	—
6.	Removal of cattles in Howrah and Calcutta	50	—	50	—	22	—
Total : Central Sector		2970	1000	2970	1000	2284	—
Grand Total, States, U.Ts., State Capital Projects and Central Sector		24882.08	5232.10	25884.38	5134	27204	3783

*Rs. 2.00 lakhs in respect of International Activities have been shown under Housing.

Water Supply and Sanitation Sector—Approved Outlays and Expenditure

(Rs. lakhs)

Sl.	States/UTs.	Approved outlay 1984-85		Anticipated Expdr. 1984-85		Approved outlay 1985-86	
		Total	of which MNP	Total	of which MNP	Total	of which MNP
1	2	3	4	5	6	7	8
1.	Andhra Pradesh	3537.00	2275.00	3546.00	1900.00	3800.00	1504.00
2.	Assam	2049.00	1378.00	2049.00	1378.00	2500.00	1810.00
3.	Bihar	2488.00	1950.00	2429.00	1662.00	3065.00	1771.00
4.	Gujarat	5500.00	2500.00	5800.00	2400.00	4082.00	1237.00
5.	Haryana	2762.00	2462.00	2762.00	2462.00	2610.00	2249.00
6.	Himachal Pradesh	1590.00	1440.00	1554.00	1440.00	1580.00	1411.00
7.	Jammu & Kashmir	2100.00	1350.00	2344.00	1350.00	3272.00	1852.00
8.	Karnataka	3433.00	2043.00	3433.00	2188.00	3282.00	1555.00
9.	Kerala	1925.00	1200.00	1925.00	1200.00	2230.00	1511.00
10.	Madhya Pradesh	3840.00	2100.00	4490.00	2040.00	5054.00	2506.00
11.	Maharashtra	20716.00	6700.00	21461.00	6700.00	21281.00	7327.00
12.	Manipur	704.00	480.00	679.00	480.00	710.00	440.00
13.	Meghalaya	929.00	400.00	936.00	400.00	885.00	429.00
14.	Nagaland	400.00	300.00	400.00	300.00	460.00	247.00
15.	Orissa	1168.00	850.00	1268.00	725.00	1316.00	821.00
16.	Punjab	1351.00	800.00	1351.00	800.00	1551.00	874.00
17.	Rajasthan	1850.00	1300.00	1850.00	1300.00	2550.00	1204.00
18.	Sikkim	230.00	140.00	230.00	140.00	440.00	261.00
19.	Tamil Nadu	14046.00	1500.00	8575.00	1500.00	10000.00	2468.00
20.	Tripura	400.00	250.00	400.00	250.00	520.00	287.00
21.	Uttar Pradesh	5308.00	3500.00	5133.00	3500.00	3743.00	2014.00
22.	West Bengal	1200.00	701.00	1200.00	701.00	1300.00	700.00
Total : States		77526.00	35619.00	73815.00	34816.00	76229.00	34478.00
Union Territories							
1.	A & N Islands	188.00	102.00	188.00	102.00	236.00	109.00
2.	Arunachal Pradesh	500.00	425.00	510.00	425.00	550.00	440.00
3.	Chandigarh	350.00	—	350.00	—	501.06	—
4.	Dadra & N. Haveli	16.40	—	16.40	—	25.00	16.00
5.	Delhi	4106.00	90.00	4034.00	100.00	4700.00	189.00
6.	Goa, Daman & Diu	1050.00	174.00	872.05	174.00	850.00	113.00
7.	Lakshadweep	58.00	—	58.00	—	34.00	30.00
8.	Mizoram	460.00	183.50	460.00	183.50	555.00	259.00
9.	Pondicherry	119.67	15.00	119.67	15.00	150.00	37.00
Total : (All U.Ts.)		6848.07	989.50	6608.12	999.50	7601.06	1193.00
Total (State Sector)		84374.07	36608.50	80423.12	35815.50	83830.06	35671.00
Central Plan†		29807.00	29250.00	29346.00	29250.00	30,000.00	29888.00
Grand Total		114181.07	65858.50	109769.12	65065.50	113830.06	65559.00

† This includes Rs. 461 lakhs for prevention and control of Water & Air Pollution which has been transferred to the S&T Sector.

CHAPTER 15

SOCIAL WELFARE AND REHABILITATION

Review of Plan Performance in 1984-85

The Annual Plan 1984-85 provided an outlay of Rs. 135.76 crores for Social Welfare. Against this, the revised estimate of the expenditure is Rs. 130.19 crores.

15.2 During the period under review, Integrated National Institute of Public Co-operation and Child Development (NIPCCD) to monitor and evaluate the for delivering the basic services of health, nutrition and non-formal education to children below six years of age and pregnant and nursing mothers. This brought the total number of projects to 1019 since the inception of the scheme in 1975-76. In addition, 210 projects were sanctioned for the year 1985-86 and the State Governments and Union Territories were requested to take advance action for starting these projects.

15.3 Monitoring of the ICDS programme was given considerable importance. By the end of 1984-85, out of 1019 projects sanctioned, 921 projects were reporting their progress. Supplementary nutrition was being provided to 61.76 lakh children and mothers and non-formal pre-school education to 26.91 lakh children. There had been considerable improvement in the utilisation of supplementary nutrition, Vitamin 'A', iron and folic acid and immunisation among pre-school children resulting in improvement of their health and nutritional status. A Monitoring and Evaluation Division was set up in the National Institute of Public Cooperation and Child Development (NIPCCD) to monitor and evaluate the social components of ICDS i.e. health and nutrition education, pre-school education and community participation.

15.4 Under the scheme of services for children in need of care and protection, besides maintaining the existing 29,536 children, additional 1464 children were provided with institutional/non-institutional services. The scheme 'creches for children of working/ailing mothers' gained further momentum. In 1984-85, it reached a coverage of about 7000 creches benefitting 1.75 lakh children.

15.5 Financial assistance continued to be given to voluntary organisations for running condensed courses of education and vocational training courses for adult women as well as for setting up income generating socio-economic units for needy women. Till December, 1984, 984 condensed courses to benefit about 23,000 women and 245 socio-economic units of various categories such as small industrial units, handloom units, agro-based units, etc. benefitting 3693 women and disabled persons were sanctioned. Eleven employment and income generating production units

were sanctioned with the assistance of the Norwegian Agency for International Development (NORAD) to train 1113 women belonging to weaker sections of society and getting them employed on a sustained basis by public sector undertakings/corporations/autonomous bodies. Under the scheme for 'welfare of destitute women', 34 training courses of short duration in non-traditional trades were organised for about 1005 women in distress. The implementing agencies were required to ensure their rehabilitation after the completion of training. Sanction was accorded for 12 new hostels with an intake capacity of 830 women and day care facilities for 194 children.

15.6 To assist the handicapped in pursuing their education and professional/technical/vocational training from 9th class onwards, a target of about 21,000 scholarships was envisaged. Aids and appliances were provided to the handicapped persons through 38 implementing agencies recognised for the purpose. Thirty one Special Cells for the handicapped in normal Employment Exchange continued to assist in securing employment for disabled persons. About 150 organisations running a large number of special schools for the disabled, limb fitting centres and sheltered workshops etc. were supported financially. The National Institute for the Visually Handicapped and the National Institute for the Orthopaedically Handicapped continued to expand their activities in the fields of training, research and development of service programmes. The National Institute for the Hearing Handicapped and the National Institute for the Mentally Handicapped were at different stages of development.

15.7 The Central Social Welfare Board continued to assist voluntary organisations, both financially and technically, engaged in welfare activities for children, women and the physically handicapped to enable them to strengthen and improve their services as also to promote such organisations where they did not exist. In addition, it gave grants for the maintenance of 165 Welfare Extension Projects, 250 balwadis, 24 integrated pre-school projects, and 360 mahila mandals, organising 845 holiday camps for children and running 75 hostels for working women.

15.8 An Information and Mass Education Cell was set up at the national level for promoting greater involvement of the masses in the social development process and mobilising public opinion against social evils like dowry, child marriages, atrocities on women, drinking etc.

15.9 Considerable emphasis was laid on research/evaluation studies, training of personnel, mobilisation of public opinion through seminars/conferences etc. and dissemination of information in different fields

of social welfare. The NIPCCD, which is responsible for research and training in the field of public co-operation and child development, organised 80 training courses/seminars/workshops, completed 10 research/evaluation studies and brought out 75 publications till December, 1984. The National Institute of Social Defence (NISD) continued to deal with a wide range of preventive, correctional and rehabilitative services. It conducted 28 training courses/seminars for various categories of personnel in collaboration with State Governments, Union Territory Administrations, Universities and major voluntary organisations in addition to collecting statistical data on various aspects of social defence and assessed the trends and developments in the field. It published 4 statistical analyses and completed 2 studies. Work on 2 studies was in progress. The Union Ministry of Social and Women's Welfare sponsored 16 research and evaluation studies upto December, 1984 through 14 institutions/universities/voluntary organisations in 11 States/Union Territories on Plan programmes and various social problems. Fifteen reports on the studies sponsored earlier were received, examined and the findings communicated to the concerned agencies/departments for follow-up action. Four organisations were provided grants for organising workshops/seminars in the area of research.

15.10 In the state Sector, there was an upward revision of the outlays for Haryana, Madhya Pradesh and Orissa whereas these were lowered for Tamil Nadu and Delhi. By and large, the social welfare programmes got a fillip during the year. However, their growth had not been even when viewed in terms of inter-programme priorities and location of services. These tended to concentrate in urban areas.

15.11 Sanction was accorded for 5 more ICDS projects on the pattern of Central projects bringing the total number of projects in the State sector to 117 by the end of 1984-85. These projects extended supplementary nutrition to 7.80 lakh children and pregnant and nursing mothers and non-formal education to 3.40 lakh children.

15.12 According to the available information relating to institutional services under various legisla-

tions in the area of social defence, there existed 454 juvenile courts, 11 children boards, 212 observation homes, 21 children homes, 91 certified schools and 181 fit person/after-care institutions under the Children's Act in 343 districts with a total institutional capacity of 35,563 children, 118 rescue/protective homes and allied institutions under the Suppression of Immoral Traffic Act with an institutional capacity of 5,793 women and 84 institutions in 125 districts under antibeggary programme with a capacity of 13,681.

15.13 The other important programmes which continued to make progress related to creches, balwadis, training-cum-production centres for women, scholarships upto VIII standard and supply of prosthetic and orthotic aids to the handicapped and other institutional and non-institutional services for socially and physically handicapped persons. Voluntary organisations were further encouraged through grants-in-aid but their development had been rather slow in certain States and Union Territories, specially in the north-eastern region.

Annual Plan 1985-86

15.14 In the Annual Plan 1985-86, the existing approach of promoting preventive and development services would continue, as these have proved to be effective and economical in the long run. Provision of institutional services would be the last resort and that too only for the beneficiary-groups who, because of their acute impairment/destitution, are unable to avail of the benefit of the development services being provided otherwise. Emphasis in the programme would be on vocational training to bring in a sense of self-reliance, mass education to bring attitudinal changes and appropriate technology to reduce drudgery. This would help the different categories of disabled persons to come in the main stream of life.

15.15 An outlay of Rs. 135.17 crores has been provided both in the Central and State/Union Territory Plans with the break-up as in Table 15.1 below :—

TABLE 15.1
Approved Outlays and Expenditure

1	1984-85		1985-86
	Approved Outlay	Revised Estimates	Approved Outlay
	2	3	4
Central	77.93	78.72	100.00
States	52.85	46.75	31.40
Union Territories	4.98	4.72	3.77
	135.76	130.19	135.17

15.16 In the allocation of outlays, priority has been given to child welfare services. The ICDS scheme, which seeks to provide an integrated package of services consisting of immunisation, supplementary nutrition, health check-up, nutrition and health education, referral services and non-formal pre-school education, has proved to be quite effective in improving the nutritional and health status of young children in the age group of 0—5+ and expectant and nursing mothers, thereby reducing the mortality and morbidity among them. Emphasis will be placed on consolidating the existing ICDS projects and improving the quality of implementation, including training, supervision, monitoring and nutrition delivery system. Besides, as mentioned earlier, it is proposed to expand the scheme to cover additional 210 rural/tribal blocks and urban slums. Financial grants on the basis of enhanced unit costs would be given to voluntary organisations for providing institutional and non-institutional services to destitute children and setting up creches/day care centres. Greater stress would be laid on improving the conditions in the creches/day care centres and children's homes and enlisting community support for effective implementation of the schemes. The National Dairy Development Board will continue to get grant-in-aid for implementing the Overseas Development Agency—United Kingdom (ODA-UK) assisted project at Khaira to provide integrated health and nutritional services to young children.

15.17 The scheme of condensed courses will be expanded with a view to opening new opportunities for employment to needy and deserving women. The vocational training courses have to be in accordance with the needs of the areas. Possibility of assisting voluntary organisations to organise these courses for disabled boys/girls from the institutions for handicapped and also to prepare girl students for lateral entry to classes V and VIII will be explored. Adequate attention will be given to improve the scheme with better salaries to the teachers, scholarships to students and library facilities etc. Efforts will be made to make the 'Socio-economic Programme' bankable in order to attract more institutional finance and have larger coverage of beneficiaries under employment. A new scheme of Women's Development Corporations to promote income generating activities among women is envisaged with equity participation by the Centre and States on 50 : 50 basis. Provision has been made to avail the benefit of financial assistance from NORAD for assisting projects to train women in non-traditional trades and provide them with sustained employment. In view of the need for accurate data on different development problems of women as also for monitoring the measures/programmes taken by various Government Departments and other agencies, the Women's Bureau in the Ministry of Social & Women's Welfare would be strengthened.

15.18 Steps will be taken to improve the functional ability of the handicapped by equipping them with proper aids and appliances. Handicapped persons will be given financial assistance for purchase/fitting of aids and appliances. The scheme of award of scholarships to the handicapped will be implemented more

vigorously with the object of making them self-supporting in the long run. New areas of employment/self-employment where handicapped could seek employment and arrangement made for in-job training would be explored. The activities of the National Institutes for different categories of handicapped will be oriented to lay more stress on research and training in education and rehabilitation techniques at national level. The pilot scheme of District Rehabilitation Centre, which aims at providing comprehensive and integrated care services to the handicapped individual from the early childhood till he is rehabilitated in the community, will be evaluated to take a final view on its further expansion.

15.19 States/Union Territories would be encouraged to provide adequate infrastructural facilities to the children committed under the Children Acts and strengthen the correctional content of prison programmes by sharing the expenditure on such activities by the Centre on 50 : 50 basis.

15.20 The Central Social Welfare Board will continue to play its role in strengthening the voluntary sector and extend grant-in-aid to voluntary organisations for carrying their activities to the uncovered areas. The 'Central Information and Mass Education Cell' in the Ministry of Social & Women's Welfare will be suitably expanded for the production of software with regard to various social problems and disseminating messages through different agencies of mass media. Education work against the evils of drinking liquor, drug abuse and atrocities on women would continue through voluntary organisations. While sponsoring research studies, preference would be given to studies/projects of applied nature keeping in view Plan policies and social problems requiring urgent public intervention. NIPCCD and NISD will extend their training programmes to cover not only the requirements of Government functionaries but also workers engaged by the voluntary organisations in the welfare of children, women and other categories of socially handicapped and disadvantaged groups and strengthen their staffing resources so as to raise the quality of their technical and advisory services.

15.21 Suitable outlays have been provided for the States and Union Territories for carrying out their existing welfare programmes as well as for taking up new programmes. Importance will be given to schemes which would increase self-reliance among the destitute and deprived children, needy women and physically handicapped persons. Necessary provision has been made to encourage these groups to take education based on vocational training and set up their trade/vocation for self-employment. Institutional services of traditional type would be discouraged, and wherever these are necessary, efforts will be made to link them with economic activities. In income-generating activities such as craft training, training-cum-production centres etc. meant for needy women and handicapped persons, stress would be laid on diversification and introduction of new trades/vocations and arrangement for marketing the raw material and finished products. Under Social

Defence, it is envisaged to strengthen the services relating to juvenile courts, children boards, remand/observation homes, children homes, rescue homes, beggar homes etc. required under the various legislations in operation to check the problems of juvenile delinquency, trafficking in women and girls and beggary. The voluntary organisations would continue to receive grants for providing institutional and non-institutional services to different target groups. Action would be initiated to develop necessary technical competence in the States/Union Territories at suitable levels to identify and assess the existing social problems in a systematic manner and suggest remedial programmes. The personnel requirement at various levels would be taken care of, for ensuring effective implementation of welfare schemes and their concurrent evaluation.

15.22. The approved outlay and the anticipated expenditure for 1984-85 as well as the approved outlays for 1985-86 for the Central and State sectors are shown in Annexures 15.1 and 15.2 respectively.

REHABILITATION

15.23 The Rehabilitation Schemes relate to (a) rehabilitation of displaced persons from Pakistan, including those who migrated to India from former East Pakistan, Indian nationals repatriated from Burma, Sri Lanka, Mozambique, Zaire and Vietnam, displaced persons from Chhamb Niabet area in Jammu & Kashmir and Tibetan Refugees, and (b) provision of assistance to displaced persons who had entered Rajasthan and Gujarat during and after the Indo-Pak Conflict in 1971. The schemes are implemented directly by the Centre as well as through State and Union Territory Governments.

15.24 The outlay in the Annual Plan 1984-85 for the Rehabilitation was Rs. 23.26 crores. Against this, the actual expenditure incurred during the year was Rs. 19.90 crores. The scheme-wise performance during 1984-85 and the outlay and targets for 1985-86 are indicated below :

15.25 Relief and Rehabilitation of displaced persons from former East Pakistan (now Bangladesh)

(a) Old and new migrants in West Bengal

Against the Annual Plan 1984-85 outlay of Rs. 85 lakhs, the actual expenditure was Rs. 78.39 lakhs. During 1985-86, the approved outlay is Rs. 1 crore and the target of families to be settled is 800.

(b) Migrants outside West Bengal

(i) **Dandakaranya Project** : This project is under normalisation and the assets and institutions created in three zones of the project are being transferred to the respective State Governments, who will be provided with requisite funds. The settlement work in the 4th zone of the project, namely Malkangiri Zone, will continue.

The Annual Plan 1984-85 outlay for Dandakaranya Project was Rs. 10.23 crores and the actual expenditure during the year was Rs. 9.55 crores. The number

of families settled in Dandakaranya Project during 1984-85 was 53 against the target of 100. The outlay for Annual Plan 1985-86 is Rs. 11.25 crores and the target of families to be settled is 100.

(ii) Migrants in agriculture in places outside West Bengal and Dandakaranya Project.

The outlay for Annual Plan 1984-85 for resettlement etc. of migrants in agriculture was Rs. 1.04 crores and the actual expenditure was Rs. 1.21 crores. The target of families to be settled was 250, which was achieved. For Annual Plan 1985-86, the outlay is Rs. 1.28 crores and the target of families to be settled is 163.

(iii) New Migrants in small trade, business and employment etc. in schemes outside West Bengal and Dandakaranya Project.

The new migrants are given resettlement assistance in small trade/business. The Annual Plan 1984-85 outlay for this purpose was Rs. 10 lakhs and the actual expenditure was Rs. 6.64 lakhs. The target of 53 families was duly achieved. The outlay for Annual Plan 1985-86 is Rs. 9 lakhs and the target of families to be settled is 57.

Repatriates from Burma

15.26 The Annual Plan 1984-85 outlay for Burma repatriates was Rs. 50 lakhs and the actual expenditure was Rs. 83.11 lakhs. Against the target of 1000 families for providing assistance in the form of second and subsequent instalments of housing and business loans etc. during 1984-85, the actual number of families given assistance was 2190. The approved outlay for 1985-86 is Rs. 35 lakhs, which is mainly for giving second and subsequent instalments of housing and business loans to the eligible families.

Repatriates from Sri Lanka

15.27 During 1984-85, against the approved outlay of Rs. 8.63 crores, the actual expenditure was Rs. 5.48 crores. The target for resettlement of repatriates from Sri Lanka for 1984-85 was 8000 families, out of which 6086 families were given resettlement assistance in plantations, industry, self-employment etc. besides housing facilities. For 1985-86, the approved outlay is Rs. 8.90 crores for providing resettlement assistance to about 8000 families in plantation, agriculture, schemes of the Repatriates Cooperative Finance & Development Bank, industrial schemes, self-employment schemes etc., besides providing housing assistance to these families.

Repatriates from Uganda, Zaire and Vietnam

15.28 The work relating to rehabilitation of the repatriates from Uganda, Zaire and Vietnam is complete. For residuary liabilities, a small provision of Rs. 2000 has been made in the Annual Plan 1985-86.

Displaced persons from Chhamb Niabet area

15.29 The work of settlement of the displaced persons from Chhamb Niabet area in Jammu & Kashmir

is nearly complete. There are, however, still 30 families to be allotted land and about 779 families have been allotted land less than that admissible at the prescribed scale. It is proposed to give assistance to these families on the pattern of the Integrated Rural Development Programme. An outlay of Rs. 2 lakhs for this purpose has been provided in the Annual Plan 1985-86.

Displaced persons due to Indo-Pak Conflict, 1971 in Rajasthan and Gujarat

15.30 The work relating to the rehabilitation of such persons in Rajasthan and Gujarat is almost complete and all the families have been settled. However, some residuary work relating to provision of the infra-

structural facilities in the rehabilitation areas is to be completed by the Rajasthan Government. Besides the Gujarat Government has been asking for assistance for infrastructural facilities also.

15.31 The Annual Plan 1984-85 outlay for the rehabilitation programme under reference was Rs. 45 lakhs and the actual expenditure was Rs. 27.99 lakhs. The outlay for 1985-86 is Rs. 25 lakhs.

Other Schemes

15.32 The Annual Plan 1985-86 for rehabilitation also provides for Rs. 0.36 lakhs for Rehabilitation Industries Corporation Ltd., Calcutta and Rs. 44.44 lakhs for Rehabilitation Plantation Ltd., Punalur.

Outlay and Expenditure in the Central Sector—Social Welfare

(Rs. in crores)

Sl. No.	Programme	1984-85		1985-86
		Approved Outlay	Revised Estimates	Approved Outlay
1	2	2	4	5
CENTRAL SCHEMES				
I. Welfare and Development of children				
	1. Creches/day-care centres for children of working/ailing mothers.	3.95	3.95	4.30
	2. Grants to National Dairy Development Board (NDDB) for development programmes.	0.75	0.75	0.50
	3. Social Work Education and Training			
	(i) Bal Sevika Training.	0.30	0.30	0.30
	(ii) Training of ICDS functionaries.	6.00	6.00	7.00
	4. National Institute of Public Cooperation and Child Development.	0.50	0.49	0.13
II. Welfare and Development of Women				
	1. Functional literacy for adult women (FLAW)	5.40	5.00	0.01
	2. Hostels for working women.	2.70	2.70	1.70
	3. Setting up of employment and income generating training-cum-production centres for women.	1.00	1.00	1.00
	4. Condensed courses of education and vocational training for adult women.	1.70	2.00	1.60
	5. Scio-economic programme.	2.80	3.00	2.57
	6. Training of rural women in public cooperation.	0.10	0.12	0.10
	7. Women's Development Corporations.	—	—	0.84
	8. Women's Development, Planning and Monitoring Cell.	—	—	0.01
	9. Grants-in-aid to voluntary organisations through Central Social Welfare Board and strengthening its field activities.	4.65	5.00	4.65
III. Welfare of Handicapped				
	1. Expansion and improvement of National Institute for the visually handicapped, the orthopaedically handicapped, the hearing handicapped and the mentally handicapped.	2.60	2.38	1.75
	2. National Institute for Rehabilitation, Training and Research (NIRTR) (Earlier NIPOT)	0.30	0.30	0.10
	3. Scholarships, research, training, sheltered employment and grants to voluntary organisations.	4.65	5.23	3.54
	4. District Rehabilitation Centres.	0.30	0.30	0.20
IV. Social Defence				
	1. Short Stay Homes.	*	*	0.08
	2. Education work for prohibition and prevention of atrocities on women.	0.15	0.15	0.20
	3. National Institute of Social Defence (NISD)	0.07	0.07	0.15
V. Others				
	1. PREM and Innovative action-cum-research projects.	0.18	0.18	0.20
	2. Grants-in-aid to All-India Voluntary Organisations.	0.48	0.48	0.20
	3. Information and Mass Education Cell in the Ministry of Social and Women's Welfare	0.05	0.02	0.25
	Total Centre	38.63	39.42	30.58

S. No.	Programme	1984-85		1985-86
		Approved Outlay	Revised Estimates	Approved Outlay
1	2	3	4	5
CENTRALLY SPONSORED SCHEMES				
I. Welfare and Development of children				
1.	Services for children in need of care and protection	2.20	2.20	2.50
2.	Integrated Child Development Services (ICDS)	36.00	36.00	65.50
II. Welfare and Development of Women				
	Assistance for setting up women's training centres/instituted for re-habilitation of women in distress (welfare of destitute women and children).	0.15	0.15	0.25
III. Welfare of Handicapped				
1.	Integrated Education	0.80	0.80	Scheme transferred to Ministry of Education
2.	Placement of handicapped through special employment exchanges/special cells in employment exchanges.	0.15	0.15	0.17
IV. Social Defence				
1.	Prevention and control of juvenile maladjustments	—	—	0.70
2.	Welfare of prisoners.	—	—	0.30
Total—Centrally Sponsored		39.30	39.30	69.42
Grand Total—Central and C.S.S.		77.93	78.72	100.00

*Included under S. No. V. 2 relating to Central Schemes.

Outlay and Expenditure in the State Sector-Social Welfare

Sl. States No.		Annual Plan-1984-85		(Rs. in lakhs)
		Approved Outlay	Revised Estimates	1985-86 Approved Outlay
1	2	3	4	5
1.	Andhra Pradesh	584	584	485
2.	Assam	66	66	70
3.	Bihar	50	51	51
4.	Gujarat	121	121	139*
5.	Haryana	161	200	137
6.	Himachal Pradesh	45	45	41£
7.	Jammu & Kashmir	67	67	41
8.	Karnataka	300	300	485
9.	Kerala	118	118	93
10.	Madhya Pradesh	95	104	235@
11.	Maharashtra	126	126	126
12.	Manipur	36	36	40\$
13.	Meghalaya	30	30	32
14.	Nagaland	29	29	31
15.	Orissa	37	39	40
16.	Punjab	165	165	120
17.	Rajasthan	36	36	30
18.	Sikkim	11	11	13
19.	Tamil Nadu	2703	2042	400
20.	Tripura	109	109	41\$
21.	Uttar Pradesh	236	236	300
22.	West Bengal	160	160	190
Total : States		5285	4675	3140
Union Territories				
1.	A & N Islands	8.00	8.00	10.00
2.	Arunachal Pradesh	13.00	13.00	14.95
3.	Chandigarh	37.25	37.25	40.00
4.	Dadra & Nagar Haveli	2.00	2.00	1.65
5.	Delhi	340.00	314.00	224.00
6.	Goa, Daman & Diu	10.00	10.00	15.00
7.	Lakshadweep	6.14	6.11	6.00
8.	Mizoram	30.00	30.00	35.00
9.	Pondicherry	51.20	51.20	30.00
Total : (All U.TS.)		497.59	471.56	376.60
Grand Total		5782.59	5146.56	3516.60

*Includes Rs. 49 lakhs for 'Social Inputs'.

£Includes Rs. 10 lakhs for 'Ex-servicemen's Corporation'.

@Includes Rs. 29 lakhs for 'Legal aid to poor' and 'Sanjay Gandhi Institute for Youth, Leadership'.

\$Includes Rs. 2 lakhs for 'Legal aid and advice'.

=Includes Rs. 5 lakhs for welfare of Ex-servicemen.

CHAPTER 16

SOCIO-ECONOMIC PROGRAMMES FOR SCHEDULED CASTES AND SCHEDULED TRIBES

Review for 1984-85

For the development programmes for Scheduled Castes/Scheduled Tribes and Other Backward Classes, an outlay of Rs. 272.96 crores was provided for 1984-85 in the Backward Classes Sector, besides Special Central Assistance of Rs. 125.50 crores for Tribal sub-Plan and Rs. 140 crores for Special Component Plan for Scheduled Castes. The outlay for the Central sector was originally fixed at Rs. 69.03 crores but was subsequently enhanced by Rs. 2 crores, making a total of Rs. 71.03 crores.

16.2 Against this, the revised estimate of expenditure is Rs. 231.53 crores in the State Sector and Rs. 71.03 crores in the Central Sector. The special Central Assistance for Tribal sub-Plan and Special Component Plan is expected to be fully utilised. The following Table gives the break-up of the approved outlay and the revised estimate of expenditure for the Backward Classes Sector for 1984-85 :

TABLE 16.1

Plan Outlay and Revised Estimate of Expenditure-1984-95

(Rs. in crores)		
	Approved Outlays	Revised Estimate of Expenditure
1	2	3
Backward Classes Sector		
States	200.14	226.30
Union Territories	3.79	5.23
Centrally Sponsored Scheme	69.03	71.03
Sub-Total	272.96	302.56
Special Central Assistance		
(a) Special Component Plan	140.00	140.00
(b) Tribal sub-Plan	125.50	125.50
Sub-total	265.50	265.50

Against an approved outlay of Rs. 203.93 crores in the Backward Classes Sector for the States and Union Territories, the revised estimate of expenditure is Rs. 231.53 crores. There is also a marginal increase in the revised estimate for Centrally-sponsored schemes. A review for the Sixth Plan shows that as against the approved outlay of Rs. 726 crores for States/Union Territories and Rs. 240 crores under Centrally Sponsored Schemes, the anticipated expenditure is higher by 6.6% and 4.5% respectively.

Central Backward Classes Sector

16.3 Out of the nine schemes in the Central sector, two schemes, i.e., award of post-matric scholarship to scheduled castes and scheduled tribes and grant-in-aid to voluntary organisations, are 100% Centrally assisted. For the rest, matching assistance on 50 : 50 basis is provided by the Centre.

16.4 Award of post-matric scholarships is a major scheme for scheduled castes and scheduled tribes and has played a significant role in enabling a considerable number of scheduled castes and scheduled tribes people to enter secondary and tertiary sectors of the economy, specially in public services. During the year under review, 9 lakh scheduled castes and scheduled tribes students were given scholarships, the average cost being Rs. 1100 per annum. A provision of Rs. 39.88 crores was made for 1984-85 for the scheme. Since it is an open-ended scheme, the Centre is committed to meet the entire expenditure on the scheme. The rates of scholarships and the income limit of the parents for eligibility for scholarships were revised in 1981 due to cost escalation. During the year under review, the results of preliminary evaluation of the impact of the scheme on scheduled castes and scheduled tribes, entrusted to the National Institute of Education, Planning and Administration (NIEPA), became available. The main recommendations of the NIEPA relate to : (i) rationalisation of degree courses grouped as A, B, C and D, as at present professional and post-graduate courses are being clubbed under group-A with the same rate of scholarships; (ii) revision of income-limit of parents; (iii) revision of rates of scholarships; (iv) timely disbursement of scholarships and (v) effective monitoring and evaluation. These are being examined for necessary action.

16.5 The scheme of grant-in-aid to voluntary organisations is funded on 100% basis by the Centre. During 1984-85, an outlay of Rs. 1.75 crores was provided and the full amount was expected to be utilised. The scheme was initiated in 1953-54 with the objective of involving these organisations in improving the educational and socio-economic conditions of scheduled castes and scheduled tribes.

16.6 Among the other schemes in the Central Sector on 50 : 50 basis, the larger schemes relate to hostels for scheduled castes and scheduled tribes girls, Scheduled Castes Development Corporations and implementation machinery for Protection of Civil Rights (P.C.R.) Act. The scheme for construction of girls hostels, for which a provision of Rs. 5 crores was made for 1984-85, was revised in 1984, fixing higher rate of expenditure for construction. In spite of this, the scheme could not progress adequately due to escalation in the construction cost and inability of

the State Governments to provide 50% matching share. The State Governments have to make use of indigenous construction materials to keep costs down and enable larger spread of the scheme.

16.7 For the pre-matric scholarships for children of those engaged in unclean occupations, a provision of Rs. 1.65 crores was made for the year. The scheme was modified by raising the income-limit of the parents or guardians from Rs. 6,000 per annum to Rs. 10,000 per annum. Renting of private buildings and appointment of wardens in the hostels were the other modifications made in the scheme. It is expected that performance of the scheme will improve in future.

16.8 Under the book-bank scheme, States/Union Territories are given assistance to purchase sets of books for engineering and medical college students belonging to scheduled castes and scheduled tribes. A provision of Rs. 0.55 crores was made for 1984-85. The scheme was modified to provide a set of books to four students instead of seven students as was the practice earlier.

16.9 The Coaching & Allied Scheme for scheduled castes and scheduled tribes, for which Rs. 0.70 crore was provided for 1984-85, is meant to improve the standard of Scheduled Caste and Scheduled Tribe students for appearing in various competitive examinations at State and all-India levels. At present, there are 63 centres for giving coaching and training for various services examinations, including three centres for engineering services. Some of these centres have been performing a useful role.

16.10 An outlay of Rs. 5.50 crores was provided in 1984-85 for the scheme relating to Machinery for Implementation of PCR Act. Under the umbrella of this scheme, free legal aid to victims of atrocities, appointment of special personnel for supervising processing of cases of contravention of the provisions of the Act, survey and publicity for eradication of untouchability and liberation of scavengers are the main components. Since 1980-81, the Ministry of Home Affairs have assisted in 15 States, 51 municipalities for conversion of dry latrines into water-borne ones and had released Rs. 70.50 crores till 1983-84. The progress of work is at various stages.

16.11 Under Research and Training, an outlay of Rs. 1 crore was included in the Annual Plan for 1984-85. Financial assistance upto Rs. 80,000 is provided to institutions/universities for conducting action-oriented research and evaluation studies of educational and economic development of scheduled castes and scheduled tribes.

16.12 For Scheduled Castes Development Corporations, a provision of Rs. 15 crores was made. The number of scheduled caste families provided with financial assistance by way of margin money loan in 1984-85 is estimated at 9.72 lakhs. The Corporations also assist promotional activities like survey and training for staff, particularly for supervision, monitoring and evaluation.

16.13 It is noticed that in the Central sector, the schemes which are funded on 50 : 50 matching basis have not done well mainly due to non-provision by States of matching funds. The situation needs to be improved.

16.14 In the State sector, the emphasis has been on providing better opportunities for educational development. Schemes for grant of educational incentives and scholarships for various categories of students and provision of hostels and Ashrams were implemented. During 1984-85, 30 lakh scheduled castes/ and scheduled tribes/other backward classes students benefited from pre-matric scholarships scheme and 24 lakh students received educational incentives like books/stationery, uniforms etc. free. Eighty new hostels were set up besides maintaining 611 existing hostels and 568 Ashram schools.

16.15 There are small grants-in-aid schemes for economic assistance for inputs to families belonging to scheduled castes, scheduled tribes and other backward classes. About one lakh families received financial assistance for setting up cottage industries and for agricultural inputs. Besides, 2.39 lakhs received assistance under housing schemes i.e. for construction of houses and for development of house-sites. 11,000 drinking wells were sunk under the programme for backward classes.

Special Component Plan for SCs

16.16 During 1984-85, the flow of funds from State Plans to Special Component Plan was Rs. 869 crores and an additive Special Central Assistance amounting to Rs. 140.0 crores was provided. The number of families estimated to have been assisted economically is 27.57 lakhs against a target of 25 lakhs. The main emphasis during the period under review was on crop husbandry schemes (through provision of inputs, distribution of mini-kits), social forestry, horticulture, animal husbandry, dairy development, fisheries, village and small industries. Attention to infrastructural schemes e.g. rural electrification, rural roads and water supply to Bastis, was ensured along with attention to social service sectors like education, health and housing.

Tribal sub-Plans

16.17 During the year, for development programmes in Tribal sub-Plan areas, tribal pockets and among primitive tribes, Special Central Assistance of Rs. 125.50 crores was provided as an additive to State flow of funds of Rs. 917.40 crores. Of the special Central assistance, Rs. 108.09 crores were utilised in Tribal sub-Plan area, Rs. 13.25 crores in tribal pockets and Rs. 4.16 crores on primitive tribes. During the year, an attempt was made to simplify financial and administrative procedures and to focus special attention on investments, implementation and monitoring of Tribal sub-Plan programmes. Studies on a number of subjects like displacement of tribal on account of location of major irrigation and industrial projects, land alienation problems, etc. were taken up by various agencies. The major emphasis was on investment in family-oriented schemes as a

measure to bring ST families above the poverty line. It is estimated that by 1984-85, 36 lakh families were economically assisted.

Annual Plan 1985-86

16.18 The outlays provided for the Annual Plan 1985-86 for the Backward Classes Sector and Special Central Assistance for Special Component Plan for Scheduled Castes and Tribal sub-Plan are as follows :—

TABLE 16.2
Annual Plan 1985-86 Outlays

	(Rs. in crores)
Backward Classes Sector	Outlays
State	209.20
Union Territory	3.20
Centrally Sponsored Schemes	42.00
	<hr/>
	254.40
Special Central Assistance	
Special Component Plan	165.00
Tribal sub-Plan	140.00

Central Backward Classes Sector

16.19 In the Central Sector, the major scheme of post-matric scholarships has been provided Rs. 10 crores over and above the Rs. 80 crores on the non-Plan side. The scheme is to be reviewed again and if necessary the rates of scholarships might be enhanced. Attempts will be made for rationalisation of rates for various courses as well as for timely disbursement of scholarships. Proper monitoring and checking of mal-practices in the scheme which have come to notice, will be undertaken.

16.20 For grant-in-aid to voluntary organisations, Rs. 1.75 crores have been provided for 22 organisations. The working of these voluntary organisations will be got evaluated during the year. For the scheme of pre-matric scholarship for children of parents engaged in "unclean occupations", an outlay of Rs. 2.50 crores has been provided. To improve the functioning of the scheme, it would be extended to cover children of Classes I to V. Other necessary modifications might also be made during 1985-86 to make it viable.

16.21 The book-bank scheme, for which an outlay of Rs. 0.55 crores has been provided, would be further modified to provide one set of books to be shared between three student.

16.22 Low-cost hostels would be constructed for scheduled caste and scheduled tribe girls for which Rs. 5 crores have been provided. The scheme will be expanded and coaching facilities provided to girls for pursuing their education.

16.23 The Coaching & Allied scheme aiming at improvement of the representation of scheduled castes and scheduled tribes in various services under the Central

State Governments and Public Undertakings has been provided an outlay of Rs. 0.70 crores for 63 centres. Under the scheme, grants are given to universities and private institutes for infrastructure facilities for setting up pre-examination coaching-centres. Short-term duration courses would also be arranged for students appearing in professional examinations.

16.24 For machinery for the implementation of PCR Act, an outlay of Rs. 5.50 crores has been provided. Effective steps would be taken to tackle the problem of scavengers rendered unemployed due to conversion of dry-latrines into sanitary ones in small towns/cities. The goal to abolish scavenging by the end of the Seventh Plan.

16.25 For research and training scheme, an outlay of Rs. 1.0 crore has been provided and it is meant for assisting Tribal Research Institutes and social sciences research institutions/organisations/universities for taking-up research and evaluation studies of programmes implemented for the benefit of scheduled castes and scheduled tribes.

16.26 For the scheme of Scheduled Castes Development Corporations, Rs. 15 crores have been provided. The States will continue to provide 51% of the share capital of these Corporations as against 49% by the Centre. The main aim of these Corporations is to provide margin money loan to attract institutional credit for economic development scheme for scheduled caste entrepreneurs. The Corporations will continue to function as catalysts, promoters, guarantors, etc. At present 19 Scheduled Castes Development Corporations are functioning in the country. Efforts will be made to streamline the functioning of these Corporations.

State Backward Classes Sector

16.27 In the State sector, an outlay of Rs. 212.40 crores has been provided for implementation of educational, economic and other promotional activities for the benefit of scheduled castes/scheduled tribes/other backward classes. Scheme like pre-matric scholarships, other educational incentives, hostels for boys and girls residential and Ashram schools will mainly be taken up. For economic development, financial assistance will be given mainly for training, cottage and small industries, other small entrepreneur schemes and for purchase of agriculture implements etc.

16.28 Under other schemes, financial assistance would be given to scheduled castes and scheduled tribes for development of house-sites and construction of houses, medical aid and drinking water.

Special Component Plan for Scheduled Castes

16.29 For Special Component Plan 1985-86, Special Central Assistance amounting to Rs. 165 crores has been provided. About 25.5 lakh scheduled caste families are likely to be assisted. Programmes would be intensified, particularly under IRDP and NREP. It has been suggested to the State Governments that periodical reviews may be undertaken at various levels of administration and the monitoring mechanism strengthened, so that individual beneficiary-oriented scheme can be corrected and multiple counting of families eliminated.

Tribal sub-Plan

16.30 An outlay of Rs. 140 crores for Special Central Assistance has been provided. About 9.30 lakh families have been targeted to be assisted during 1985-86 to enable them to cross the poverty-line. The main stress will be on family-oriented scheme and development of infrastructure. In the matter of assistance to families below the poverty-line, the thrust will not merely be in coverage in arithmetic terms, but efforts will be made to ensure that the socio-economic benefits do reach them and a substantial number of scheduled tribe families in the country get raised above the poverty-line by the end of the Seventh Plan. The need for adequate monitoring and evaluation of programmes under the tribal sub-plans has been emphasised and the following points have been suggested for action by the State Governments and Union Territory Administrations :

- (i) While regular monitoring should continue to be done by the monitoring cell established at the level of the State Governments, concurrent monitoring and evaluation of programmes in the field will have to be seriously

considered by the State Governments, in order to have a continuing flow of feed back from the field. Based on a system of in-organisation check, this can reduce the cost of evaluation.

- (ii) Systematic evaluation will have to be done not only by the Tribal Research Institutes located in the States but also by the Directorates of Statistics/Evaluation of the States and other national-level and State-level professional autonomous research organisations.

16.31 The need for adoption of family cards (Vikas Patrika) in respect of scheduled tribe beneficiaries has been emphasised from time to time as this measure will not only help in checking multiple counting of beneficiaries but also assist the officers in making concurrent monitoring during the field visits. In order to encourage the State Governments in this regard, the Central Government has agreed to bear part of the expenditure on printing and maintenance of these cards.

Backward Classes Sector—Outlays for Centrally sponsored schemes for the Annual Plan 1985-86

		(Rs. in crores)
Sl. No.	Name of the Scheme	Outlay for 1985-86
1	2	3
1.	Post-Matric Scholarships	10.00
2.	Aid to Voluntary Organisations	1.75
3.	Pre-matric scholarships to children of those engaged in unclean occupation	2.50
4.	Girls Hostels for SC/ST	5.00
5.	Book Banks for SC/ST	0.55
6.	Coaching & Allied Scheme	0.70
7.	Implementation of PCR Act including Liberation of Scavengers	5.50
8.	Research & Training	1.00
9.	Scheduled Castes Development Corporations	15.00
	Total	42.00

Backward Classes Sector—State/Union Territory-wise Outlays for the Annual Plan 1985-86

Sl. State/U.T. No.		(Rs. in lakhs)
		Agreed Outlays (1985-86)
1	2	3
1.	Andhra Pradesh	5478
2.	Assam	392
3.	Bihar	1238
4.	Gujarat	1763
5.	Haryana	446
6.	Himachal Pradesh	141
7.	Jammu & Kashmir	90
8.	Karnataka	931
9.	Kerala	415
10.	Madhya Pradesh	2458
11.	Maharashtra	1700
12.	Manipur	80
13.	Meghalaya	1
14.	Nagaland	—
15.	Orissa	300
16.	Punjab	500
17.	Rajasthan	140
18.	Sikkim	25
19.	Tamil Nadu	1412
	Tripura	730
21.	Uttar Pradesh	2120
22.	West Bengal	560
	Total States	20920
	Union Territories	
1.	Andaman & Nicobar Islands	1.75
2.	Arunachal Pradesh	—
3.	Chandigarh	17.80
4.	Dadra & Nagar Haveli	—
5.	Delhi	210.00
6.	Goa, Daman & Diu	15.00
7.	Lakshdweep	—
8.	Mizoram	—
9.	Pondicherry	75.00
	Total-UTs	319.55
	Grand Total	21239.55

CHAPTER 17

AREA DEVELOPMENT PROGRAMMES

HILL AREA DEVELOPMENT

The Hill Area Development Programme (HADP) has been in operation from the inception of the Fifth Five year Plan i.e. 1974-75 in the States of Assam (2 districts), Tamil Nadu (1 district), Uttar Pradesh (8 districts) and West Bengal (3 Sub-Divisions of Darjeeling) and the Western Ghats Region (163 Talukas) falling in the States of Maharashtra, Karnataka, Tamil Nadu, Kerala and the Union Territory of Goa. It is being continued during the Seventh Five Year Plan. Under the Programme, special Central assistance is provided to supplement the efforts of the State Government concerned. The Provision for special Central assistance in 1985-86 is Rs. 170 crores as against Rs. 162.41 crores for 1984-85. The allocation among the constituent States during 1985-86 and the preceding year is as under :—

TABLE 17-1
Distribution of Special Central Assistance

Areas	(Rs. crores)	
	1984-85	1985-86
1	2	3
Hill Areas		
Assam	22.95*	22.08
Tamil Nadu	6.28	6.73
Uttar Pradesh	104.17	107.98
West Bengal	6.71	9.21
Surveys & Studies	0.25	0.93
Sub-Total	140.36	146.93
Western Ghats		
Kerala	5.42	5.63
Maharashtra	6.93	7.29
Tamil Nadu	3.95	4.11
Karnataka	4.57	4.57
Goa	1.11	1.15
Western Ghats Secretariat	0.03	0.03
Surveys & Studies	0.04	0.29
Sub-Total	22.05	23.07
Grand-Total	162.41	170.00

*Includes unspent balance from previous years.

17.2 The basic objective of the HADP is to promote ecological balance and bring about socio-economic development of the hill people, with watershed as a

unit of development. The focus is on fulfilment of basic needs viz. food, fuel, fodder, energy, health, education and drinking water supply of the hill people and involvement of local people in the development programme. The main thrusts of the HADP are as under :

- (i) Adequate attention to be paid to afforestation for restoration of degraded vegetation and forest cover in ecological fragile areas in general and catchment areas of major river valley projects in particular. Conservation of forest has to be secured through substitution of forest-based industrial raw material and encouraging use of substitute for wooden packing cases.
- (ii) Scientific land-use pattern with the use of improved technology, keeping socio-economic and ecological factors in view.
- (iii) Solution to the problem of shifting cultivation through integrated watershed management.
- (iv) Due attention to be paid to horticulture development with emphasis on diversification as well as developing facilities for processing and marketing of horticulture produce.
- (v) Improvement of local breeds of livestock: stall-feeding, use of feeding Mangers and pasture development.
- (vi) Policy of road development to be reviewed with a view to bring about balanced development of infrastructure on the one hand and productive sectors like agriculture, sericulture, handicrafts etc. on the other.
- (vii) Imparting training to field level officials particularly to ensure effective implementation of development programmes, as well as development of skills for promoting self-employment.

17.3 The Planning Commission set up a working Group on Development of Hill Areas during the Seventh Five Year Plan. The Group was called upon to review the performance of the HADP, suggest criteria for delineation of hill areas in the country on scientific lines and to prepare strategy and approach for development of hill areas during the Seventh plan period. The Working Group has submitted its report which is being examined.

17.4 The scheme for conducting integrated multi-disciplinary survey initiated during the Sixth Five Year Plan for preparation of the status report on catchment areas of major river-valley projects in the Himalayan

and Western Ghats regions will be continued. Under the scheme, proposals for undertaking catchment area surveys have been approved in respect of hill areas of U.P., Assam, Tamil Nadu, Tripura and Meghalaya. Reports on the catchment area surveys from these States are expected by the end of 1985-86.

North Eastern Council

17.5 For balanced development and for formulation of unified and coordinated regional plan for the North Eastern Areas (comprising the five States of Assam, Manipur, Meghalaya, Nagaland and Tripura and the two Union Territories of Arunachal Pradesh and Mizoram), the North Eastern Council (NEC) has been functioning since the inception of the Fifth Plan. Most of the schemes of the NEC aim at development of infrastructure facilities in the region like power, transport, manpower while some are of experimental or demonstrative nature. The outlay for the Annual Plan of the NEC for 1985-86 has been approved at Rs. 125 crores against Rs. 107.75 crores for 1984-85. The sector wise allocations are given in table 17.2 below :—

TABLE 17.2
Approved Outlays—NEC

Sectors	(Rs. Crores)	
	Annual Plan	
	1984-85	1985-86
1	2	3
I. Agriculture & Allied Programmes	9.07	5.23
II. Water & Power Development	20.78	45.07
III. Industry & Mining	5.92	3.25
IV. Transport & Communication	56.38	59.33
V. Manpower Development	9.01	10.51
VI. Social & Community Services	4.89	0.12
VII. General Services	1.70	1.49
Total	107.75†	125.00†

†Includes Rs. 10 crores as L.C. Loan.

17.6 It will be seen from the Table that the bulk of the approved outlay (i.e. 83 % of the total) is for power and transport development. In the Power sector, the Kopili-Hydro-electric project (150 MW) at an estimated cost of Rs. 185.35 crores (revised) is the main project. Khandung Units I & II (2 × 25 MW) of the project have been commissioned. The remaining two units (2 × 50 MW) of the project are scheduled to be commissioned in 1986.

17.7 Roads constitute a major sector in the NEC Plan as these cater to the needs of a critical infrastructure requirement of the region. The second bridge over Brahmaputra at Bhomoraguri near Tezpur with an estimated cost of Rs. 83.45 crores (revised) is one

of the important projects and is scheduled to be commissioned by December, 1985. Attempts are also being made for development of ropeways and improvement of inland water transport. Emphasis would be on an integrated and viable transport system having rail, road, inland water transport, air and ropeway services for the region.

17.8 In the agriculture sector, the main emphasis has been on creation of institutional infrastructure and integrated watershed management. Four watershed management projects, namely, Popompoma in Arunachal Pradesh, Shingatsusang in Nagaland and Rangacherra and Maharanincherra in Tripura, have been sanctioned and are under execution. Another two projects, namely, Umtongphar in Meghalaya and Terei in Mizoram, have been recently approved.

17.9 In the Industrial field, of the four mini-cement plants sanctioned, the one at Tezu (30 tpd) has been commissioned. The remaining three cement plants, namely, Hundung (50 tpd) in Manipur, Wazeho (50 tpd) in Nagaland and Umrangshu (200 tpd) in Assam are in different stages of execution.

17.10 Development of manpower will continue to receive due attention by way of sponsoring candidates for fellowships and training, strengthening of existing technical and administrative institutions and setting up of new institutions. A Regional Institute of Science and Technology is being set up and it has been decided to start certificate and diploma courses during 1985-86.

Desert Development Programme—1985-86

17.11 The Desert Development Programme (DDP) was introduced in 1977-78 on the recommendation of the National Commission on Agriculture with the basic objective of controlling desertification and developing conditions for raising the level of production and increasing income and employment generation for the local population. During the Sixth Plan, the DDP covered 126 Blocks both in hot and cold desert areas of the country comprising 17 districts in hot deserts (11 in Rajasthan, 4 in Haryana and 2 in Gujarat) and 4 districts in cold deserts (2 in Jammu & Kashmir and 2 in Himachal Pradesh). The coverage was based on the recommendations of a Task Force constituted in 1980 to study the existing area coverage under DDP; to lay down the objective criteria for inclusion/exclusion of areas; formulate the broad strategy of development of the programmes; and to identify its linkages with the other on-going rural development programmes.

17.12 The financing pattern during the Sixth Plan was on the basis of 50:50 sharing between the Centre and the States. For hot deserts, the funds were provided at the rate of Rs. 10 lakhs per thousand sq. kms. with a ceiling of Rs. 2 crores per district per annum. For cold desert, an annual allocation of Rs. one crore for Leh and Kargil (J&K) and of Rs. 50 lakhs each for Spiti and Pooch sub-Divisions of Kinnaur District of Himachal Pradesh was made. An

amount of Rs. 100 crores was allocated for the programme during the Sixth Plan. The year-wise allocation and expenditure were as below :

TABLE 17.3
Allocation and Expenditure—Sixth Plan

Years	(Rs. crores)		
	Allocation	Expenditure	Per-centage
1	2	3	4
1980-81	16.00	14.49	90.6
1981-82	16.00	15.47	96.7
1982-83	21.18	12.41	58.6
1983-84	20.84	15.00	72.0
1984-85	20.83	16.18	77.7
Total (1980-85)	94.84	73.55	77.6

Physical Achievements

17.13. No physical targets were fixed for various components of developmental activities under DDP

in the Sixth Plan. The physical achievement has been as under :

I. Afforestation

(i) Plantation	'000 ha'	53.87
(ii) Avenue and shelter belts Plantations	Do.	32.61
(iii) Sand dune stabilisation	Do.	12.09
II. Irrigation potential created	Do.	7.88
III. Area treated under soil conservation	Do.	2.55
IV. No. of cross-bred lambs/born/distributed		6411
V. No. of milk collection centres set up		721
VI. No. of veterinary dispensaries set up		161
VII. Employment generated ('000 mandays)		8799

17.14. In the Seventh Plan, it is proposed to give greater thrust to the programme by remodelling it on the lines of other special area programmes. For the year 1985-86, a provision of Rs. 8 crores has been made.

CHAPTER 18

SCIENCE AND TECHNOLOGY

INTRODUCTION

18.1. The approach to be adopted for the formulation of the Seventh Plan in the S&T sector was considered in detail by the Science Advisory Committee to the Cabinet (SACC). Based on this, guidelines were formulated by the Planning Commission and circulated to all the Working Groups.

18.2 To evolve measures for implementation of the various recommendations in the Technology Policy Statement (TPS) announced by the Prime Minister in January 1983, a Technology Policy Implementation Committee was set up under the Chairmanship of Member (Science) in the Planning Commission. It is working out detailed programmes for translating the basic concepts enunciated in TPS into implementable plans; it has already dealt with matters such as technology forecasting, technology development fund, incentives for technology development and utilization, including tax exemptions, etc.

18.3 There has been a special effort to create approaches and mechanisms for the development of science and technology and for its optimal utilization for implementation of the major programmes and Plan activities in the States/UTs. Almost all the States and UTs will have a proper organisational structure to carry out their S&T activities during the Seventh Plan period.

18.4. The major thrusts for the S&T sector for the Seventh Plan have been identified by the Steering Group on Science and Technology and Environment set up by the Planning Commission. The programmes worked out for 1985-86 are in line with these thrusts and would include :—

- support for thrust areas that could fructify in the development of new technologies in frontier areas, such as micro-electronics, biotechnology, new materials, etc.;
- identification and implementation of missions with high S&T component to accomplish specific end-objectives;
- creation of infrastructural capabilities in areas like information systems, instrumentation, major items of equipment operated as national facilities etc.;
- integration of the S&T efforts with the programme and plans in the major socio-economic sectors;
- S&T and society related activities such as S&T for women, weaker sections etc.;
- strengthening of the S&T component of the education system and support for basic research and centres of excellence;

—technology development in accordance with the basic principles of the Technology Policy Statement; and so on.

18.5. Achievements in the S&T sector, of the various S&T agencies/departments as well as in the various socio-economic Ministries, in the last year of the Sixth Plan 1984-85, and programmes envisaged for the Annual Plan 1985-86, the first year of the Seventh Plan, are briefly outlined below :—

Atomic Energy

18.6 The year witnessed a major gearing up of R&D capabilities for the Planning and Production aspects involved in achieving a target of 10,000 MWe of nuclear power generating capacity by the year 2000 AD. At Bhabha Atomic Research Centre, (BARC) Bombay, the DHRUVA reactor has made significant progress; commissioning of its various systems and safety documentation have been completed, and first criticality is expected shortly. High power operation of the reactor is expected to be achieved during 1985-86. The homogenous reactor PURNIMA—II, using uranium-233 fuel, attained criticality in May, 1984. This is the only operating reactor of this kind anywhere in the world at present, for studies in the thorium cycle. A mixed oxide fuel manufacturing facility was commissioned during the period 1973-77 at Trombay, by expanding and augmenting the laboratory of the Radio-metallurgy Division of BARC. The facility has already successfully developed mixed natural uranium-plutonium oxide (MOX) fuel for boiling water reactors and mixed uranium-plutonium carbide fuel for fast breeder reactors. The Variable Energy Cyclotron (VEC) was operated round the clock, and its utilisation factor has improved. The efficiency factor for beam on target attained a value of 70 per cent. Scientists from about 20 universities and research institutions are using the beam to carry out experimental research in nuclear physics, solid state physics, radiation damage in materials, analytical chemistry, radio-chemistry, biophysics and metallurgy. A new computer ND-540 was installed in January, 1985 for analysis of the experimental data.

Programmes for 1985-86

18.7 The Centre for Advanced Technology (CAT), being set up at Indore, was inaugurated in February, 1984. The major thrust at the centre will be in the areas of lasers, fusion-related research, accelerators and associated technology development. Activities pertaining to the development of the infrastructure have commenced. Major facilities planned for this Centre, such as the synchrotron light source, will be utilised as national facilities.

18.8 At the Reactor Research Centre (RRC) near Madras, construction of the Fast Breeder Test Reactor (FBTR) for the first phase of the fast breeder programme has been completed. During this phase, the Test Reactor is to achieve initial criticality and operate at low power for reactor physics experiments. Fuel loading and approach to criticality of FBTR was planned for mid 1985. The reactor will be fuelled indigenously with a plutonium and natural uranium mixed carbide fuel. Work is in progress on the detailed design of some of the components, including the steam generators, sodium pumps and their drives, rotatable plugs and fuel handling ramp, following the submission of the preliminary design and feasibility reports for the 500 MWe proto-type Fast Breeder Reactor. As a step towards developing large capacity sodium pumps indigenously, a model pump capable of 75 cu m/hr. of flow has been designed and manufactured with assistance of Indian industry. It is scheduled for tests in sodium during 1985-86.

18.9 During 1984-85, the Atomic Minerals Division (AMD) covered 38,978 sq. km. by airborne gamma ray spectrometric and magnetic surveys, 15,842 sq. km. by radiometric foot survey and more than 2,994 route km. by jeep borne scintillometric surveys. The airborne survey was supplemented with a wide variety of remote sensing applications and techniques comprising study of aerial photographs, Landsat imageries and computer enhancement technique of Landsat data. Significant uranium anomalies were located in some parts of the country.

18.10 The Tata Institute of Fundamental Research (TIFR), Bombay operates a National Centre for Software Development and Computing Techniques, a National balloon fabrication and flight facility and a tritium laboratory for hydrological studies. "Anuradha", a sophisticated payload designed and fabricated by Scientists of TIFR and Physical Research Laboratory (PRL), Ahmedabad in collaboration with the ISRO and BARC, for the study of ionisation states of extremely low energy cosmic ray particles incident on the earth's atmosphere, has been successfully flown in the Spacelab experiment. At the Kolar Gold Fields, the experiment on nucleon decay, at the depth of 2,400 metres, is continuing on an uninterrupted basis; one more nucleon decay candidate event of high quality has been registered, in addition to the 3 earlier fully confined candidate events. For the second phase of the experiment, the construction of a new laboratory of dimensions 25 m × 10 m × 8.5 m at the depth of about 2,100 m in the same mines has been completed. A detector about three times as large as the current one has been fabricated and is under installation. The Ooty Radio telescope was, for the first time, used in a very long base-line interferometry (VLBI) mode to investigate the milli-arc second structure of radio galaxies and quasars. This involved simultaneous observations with radio telescopes in U.K., Netherlands, West Germany, Poland and USSR. The Pelletron accelerator is in the process of installation at the Institute.

18.11 The Tata Memorial Centre is one of the foremost research centres in the country conducting extensive research on cancer. It comprises the Tata

Memorial Hospital and Cancer Research Institute. The Tata Memorial Hospital has consolidated its routine activities for undertaking bone marrow transplantation; four more bone marrow transplantations were undertaken. The Hospital installed and commissioned a whole-body computerised axial tomographic scanner equipment (CAT SCAN). Considerable progress has been made in computerisation of medical records and administrative functions. Cancer camps were set up at various places in Maharashtra. The Community Rural Cancer Centre at Barsi of Sholapur district continued its activities in conducting rural camps. At the Cancer Research Institute, preliminary trials were undertaken to evolve preventive strategies in the control of cancer. Using laboratory models, attempts are being made to evolve strategies to overcome drug resistance in cancer patients. Conditions have been standardised at the Institute for growth of primary culture of human brain tumours.

18.12 The Saha Institute of Nuclear Physics is conducting research on electron microscopy, spectroscopy, mass separation, micro-wave absorption etc. The Council of the Institute has approved a hot plasma project using toroidal tokamak device.

18.13 The Institute of Physics, Bhubaneswar carries out research in all branches of pure and applied physics. The Institute provides advanced training at the post M.Sc./pre-doctoral level for teachers and research workers from all over the country as well as technical consultancy and help in instrumentation to educational institutes and industries. This institute has been taken over by the Department of Atomic Energy as an aided institute from 1985-86.

18.14 The programmes in this strategic area are primarily geared to attain self-reliance in all aspects of nuclear power generation. In addition, basic research is carried out at front line contemporary levels in a variety of related areas.

Ocean Development

18.15 Oceanography is an important emerging area for India in the Science and Technology sector. Apart from aspects of strategic importance, there is the richness of physical and biological ocean resources, the role of ocean phenomena in relation to weather and the long coast line of India.

18.16 The Department of Ocean Development (DOD) has had the responsibility for successful completion of four research expeditions to South Indian Ocean and Antarctica, organizing a polymetallic nodules survey and mining feasibility programmes and promotion of research programmes in the area of marine Science and Technology. DOD acquired during the Sixth Plan one Oceanographic Research Vessel (ORV) "Sagar Kanya" and a Fisheries and Oceanographic Research Vessel (FORV) "Sagar Sampada". In 1983-84, a permanent Research Station named Dakshin Gangotri was set up in Antarctica. The Antarctica expeditions have enhanced the capabilities of the country to undertake polar research. For ultimate exploitation of deep sea bed polymetallic nodules, two mining sites have been selected in the Indian Ocean. Further, a number of grants-in-aid

schemes relating to Oceanographic Research have been supported during the Sixth Plan, and preparatory work carried out on human resources development and capability build up.

Programmes for 1985-86

18.17 In the area of Antarctic Research, a group of 6 persons will be doing preliminary work for undertaking an expedition to the South Pole during 1985-86; and the fifth expedition to Antarctica will be organised for continuing the Antarctic research programme. It is planned to establish an Antarctic Study Centre where material and data from the Antarctica can be displayed, analysed and worked upon and also to coordinate further Antarctic Research activities. As a Pioneer Investor, India has filed its application with the Preparatory Commission of the International Sea-Bed Authority of the UN in January 1984 for allotment of one of the two mining sites identified by India in the Central Indian Ocean. Detailed surveys in the Prime/Pioneer area in the Central Indian Ocean will be continued by adopting suitable methods and techniques. It is planned to acquire under-water technology in the form of manned sub-mersibles. For promoting scientific research under the Marine Research & Development programme, about 60 projects in areas covering desalination and marine chemicals, marine pollution and marine instrumentation etc. will be taken up, and seminars, symposia etc. will be organised during 1985-86. R&D activities related to ocean energy, particularly ocean thermal energy conversion will also be taken up. An important area for study will be prevention of coastal erosion. Short term training programmes will be organized and a programme for the setting up of Post-Graduate Centres initiated.

18.18 The other important activities to be taken up during 1985-86 include setting up of a National Oceanographic Data Bank and the project on the Remote Sensing for oceanographic data collection. In the first programme, advanced computer facilities would be linked with other national and international data centres with terminals in various related organisations. In the second programme, multi-spectral aerial surveys of sea areas around Bombay, Madras and Visakhapatnam will be conducted; pollution due to various causes, including sewage, will be evaluated; and studies undertaken on coastal monitoring; identification of beach erosion and accretion; coastal geomorphology; chlorophyll etc.

Science and Technology

18.19 The Department of Science & Technology (DST) has the prime responsibility for : coordination of S&T activities; promotion of research and development in frontier and emerging areas and in areas of societal application, coordination of inter-disciplinary, multi-institutional programmes and providing support to academic and research institutions; providing secretarial support to SACC, National Biotechnology Board, National Science & Technology Entrepreneurship Development Board and National Council for S&T Communication. The Department is also the focal point for international S&T collaboration, except in specific fields such as Atomic Energy, Space
26—500 PC/85

and Agriculture. There are several aided institutions under the Department, and major survey organisations like Survey of India (SOI) and National Atlas and Thematic Mapping Organisation (NATMO). In January, 1985, the India Meteorological Department and the three aided institutions namely, Indian Institute of Astrophysics, Indian Institute of Geomagnetism and Indian Institute of Tropical Meteorology were transferred from the purview of the Ministry of Civil Aviation to DST. On the other hand, schemes relating to Technology Utilisation, National Information System for Science & Technology (NISSAT) and work of two public sector undertakings, namely Central Electronics Limited (CEL) and National Research and Development Corporation (NRDC) have been transferred to the newly created Department of Scientific and Industrial Research (DSIR).

18.20 One of the major activities of the Department relates to the promotion of nationally relevant and high quality Science and Technology R&D, particularly in newly emerging frontier areas. This is done through the Science and Engineering Research Council (SERC) which has evaluated 188 research projects and recommended 35 projects for funding. Programmes in specifically identified thrust areas in Life Chemical and Physical Sciences have been initiated through 19 Programme Advisory Committees. Special programmes in thrust areas identified in Engineering Sciences would be initiated during the 7th Plan. The scheme on Intensification of Research in High Priority Areas (IRHPA) has provided continued support to major research groups which were set up around outstanding scientists in the areas of genetic engineering, cellular and molecular biology, photo-synthesis, metallic glass, solid state surface chemistry, plasma physics etc. As part of the S&T promotion programme, major national facilities like 500 MHz FTNMR, 200 KV Electron Microscope, Solid State Spectrometer etc. have been established. A number of research programmes of relevance to various sections of society such as women, young scientists, weaker sections etc. have been sponsored; a State of Art report on 'Occupational Women' has also been brought out. Four Regional Sophisticated Instrumentation Centres (RSICs) have been strengthened, and three new centres have been made operational. Assistance is provided to professional bodies and scientific academies in connection with their planned activities related to publication, holding of Conferences/Seminars etc. Support has also been provided for organising a number of Seminars and symposia at the national and international level in various fields of science and technology. Through sustained efforts of DST and the Planning Commission, 20 States and 7 Union Territories have now formed State Councils/Committees and/or State Departments for Science & Technology.

18.21 Under the special programme on Instrument Development, in the second phase, work has been initiated on equipment for Scanning Electron Microscopy, Lasers, Laser Raman Spectrometry, Hot Axle Box Defection System for Railways etc. Under the New Fibres & Composites programme many resin

systems like Vinyl ester, Furan and pitch have been fully developed on laboratory scale. Batch scale production of aramind fibre is likely to be completed. New resin systems for load bearing phenolics and toughened epoxies have been taken up for development.

18.22 In the programme on Earth and Atmospheric sciences, pilot studies were conducted to develop a Natural Resources Data Management System on typical mountaneous terrain, plain sand semi-arid regions, parts of eastern and western coastal belts and typical backward areas. A detailed status report on Integrated Deep Sea Fans of the Bay of Bengal was prepared and discussed at a National Consultants Meet. A Regional Remote Sensing Service Centre is being established at the Indian Institute of Technology, (IIT), Kharagpur.

18.23 Under the Technology Absorption and Adaptation Schemes, status reports on tyres/tubes, lead acid batteries, hand tools, fibre glass tractors etc. are being prepared. M/s. Instrumentation Ltd., Kota, has taken up with DST support, a project for effectively absorbing the technology and further possible improvement/upgradation for future digital types of process instruments.

18.24 Significant work has been done under the National Bio-Technology Board (NBTB) on manpower development through organising training courses/workshops in universities and research institutions, awarding NBTB associateships and strengthening of seven universities/institutions for teaching and training at post graduate level in bio-technology. Feasibility reports were prepared on setting up infrastructural facilities such as plant culture collection, blue green Algal culture collection, animal cell culture, biochemical pilot plants, animal house facilities, informatics, etc. The work plan for setting up of International Centre for Genetic Engineering and Biotechnology in Delhi has been prepared.

18.25 The Survey of India (SOI) has carried out topographical and engineering surveys for development projects connected with coal fields, irrigation, power, communication, flood control, water supply, forestry, cantonment areas, command areas and canal areas. Several engineering models for survey work have also been fabricated. The National Atlas and Thematic Mapping Organisation, (NATMO) has printed 10 plates of water resources atlas.

Programmes for 1985-86

18.26 Under the Science & Technology Promotion Programme, efforts would be made to consolidate the SERC activities. Several new units are proposed to be set up in thrust areas such as Atomic Collisions, Material characterization, X-ray Crystallography, Laser spectroscopy etc. in addition to the support to the ongoing programmes through the IRHPA scheme. It is planned to set up a Phytotron as a national facility with UNDP assistance. Efforts will be to consolidate and intensify the work at various institutions on development of S&T for weaker sections; the focus would be on coordinated programmes. Under the "S&T for Women" scheme, collaborative research programmes have been worked out on problems in hilly regions

coastal and arid regions and in the rice-farming systems; R&D on technologies specially suitable for women such as wool spinning charkha and paddy transplanters etc. would be initiated. Several programmes in the fields of integrated rural development of educational materials, preparation of State of art reports, writing of scientific monographs etc. would be initiated to utilize the expertise of retired scientists. Special projects on application of S&T for rural development would be taken up. The activities of RSICs would be strengthened for optimum utilisation of the equipment in the existing centres and creating further capabilities. S&T activities at the State level would be intensified through financial support for setting up appropriate S&T secretariats for the State S&T Councils, programmes for remedying regional imbalances, particularly through inter-agency coordinated programmes, location oriented technology development programmes etc.

18.27 Several programmes in the field of Atmospheric Sciences, namely those relating to cloud physics, numerical modelling studies, short and long term weather prediction and other monsoon related studies, severe thunder storms and cyclone studies, satellite meteorological studies, tropospheric studies, etc. would be undertaken. In addition, major activities would be taken up in relation to Natural Disaster Studies in the areas of earthquakes, cyclones and floods, droughts, avalanches and weather modification.

18.28 Under the sectoral programme, the activity on development of resin systems, instrumentation etc. would be intensified.

18.29 The major emphasis in the area of Biotechnology would be on manpower development in genetic engineering, cell fusion technology, molecular genetics, immunology and bio-engineering, through integrated training programmes, associateships, visiting scientists programmes etc. It is proposed to initiate multi-disciplinary teaching and training units in 6 universities at post graduate level. An intensive course programme for industrial personal is proposed to be initiated through short term courses in industrial bio-technology. Several research projects in the field of biocids to control mosquito larvae, tissue culture programme relating to coconut palm, bamboo etc. would be supported. Infrastructural facilities like animal house facilities, Microbial Culture collection, plant and animal tissue cultures, bio-chemical engineering, informatics etc. would be set up. In addition, it is proposed to establish manufacturing units for production of vaccines for human and animal use, of plasma/serum, using high biotechnology based processes, large scale production of economically useful agricultural crops and trees through tissue culture etc. Necessary steps are being taken for setting up the International Centre for Genetic Engineering and Bio-technology.

18.30 Under the S&T Entrepreneurship Development Programme (EDP), the emphasis would be on Training Courses for S&T Entrepreneurs, promotional measures for the establishment of six S&T Entrepreneurship Parks, organisation of a few Employment Camps, undertaking case studies etc. It is proposed to conduct 71 courses in various parts of the country which would train about 1775 persons in 1985-86.

18.31 The Science & Technology communication and popularisation programme would include setting up of a National S&T Information Bureau, Training programme for S&T Communicators, Support for R&D projects etc.

18.32 Several new programmes are proposed to be undertaken in the area of Engineering Sciences, including thrust areas in Chemical Engineering, Civil Engineering, Computer Application, Energy etc; coordinated R&D programmes would be initiated in these areas.

18.33 It is proposed to sponsor studies regarding total stock of S&T manpower, demand forecasts for various selected categories of S&T personnel and data bank of personnel who have received higher industrial training etc. under S&T manpower development schemes. It is also proposed to undertake a programme on "S&T for consumer protection" under which a few selected items of mass consumption would be taken up for study of technologies utilized for production, quality/reliability aspects and so on.

18.34 Major strengthening and modernisation of the two scientific survey organisations namely SOI and NATMO would be initiated in 1985-86.

18.35 A Mission Oriented approach for technology development, technology acquisition and its application and visible demonstration of its effectiveness was recommended by the Steering Group on Science & Technology and Environment for the 7th Plan. S&T Missions to accomplish well identified tasks would be taken up. Necessary organisational structures would be created for identification, coordination, and monitoring of important S&T missions, on an interagency basis. In the identified areas, interdisciplinary groups would be set up for preparing project documents and lead agencies specified as also all the participating entities.

18.36 Through the above mentioned efforts, DST would continue to play the role of a coordinating department for promotion, and advancement of Science and Technology activities.

Meteorology

18.37 The India Meteorological Department and the three aided institutions, namely Indian Institute of Tropical Meteorology, Indian Institute of Astrophysics and Indian Institute of Geomagnetism have been transferred from the Ministry of Tourism and Civil Aviation to the Department of Science & Technology with effect from January, 1985.

India Meteorological Department

18.38 Under the INSAT-I programme, 11 Data Collecting Platforms (DCPs) for obtaining data for the inaccessible areas have already been installed, and 9 more such platforms are being installed. Similarly, 7 Secondary Data Utilisation Centres (SDUCs) for receiving data for the cloud imageries from Meteorological Data Utilization Centre (MDUC) have been

established. The establishment of uplink facility from Disaster Warning System (DWS) Receivers has been deferred to 1985-86 due to the certain difficulties.

18.39 Under the observational network programme, a Multimet radar has been commissioned at Patiala; and a Radar at Srinagar has been installed.

18.40 One part-time observatory has been converted into a departmental one, and preliminaries for the remaining stations have been completed. Under the programme for modernisation of aeronautical meteorological instruments at National airports, one airport has been taken up for installation of current weather instruments. Equipment in respect of other airports, as also the Switching computer as part of the expansion of telecommunication facilities and high speed transmission of meteorological data, is expected to be delivered shortly. 4 Stations for soil moisture observations have already been established and the remaining 7 stations are being set up. Studies in regard to rainfall climatology for agricultural planning were undertaken in the State of Rajasthan.

18.41 Preliminaries for starting a Flood Meteorological Office at Agra, and for starting two stations for strengthening of coastal network of surface observatories are likely to be completed.

Programmes for 1985-86

18.42 Under the INSAT Project, 5 more Secondary Data Utilisation Centres (SDUCs) will be linked to MDUC, New Delhi. A few SDUCs are proposed to be upgraded. The remaining Data Collection Platforms envisaged under the Project will be installed; the uplink facility for transmission of DWS messages to the Satellite will be established and about 50 DWS receivers will be installed.

18.43 The observational programme includes installation of: 2 S-Band radars for improvement of Cyclone Warning Service and meeting Defence requirements; 2 multimet radars at Ranchi and Masulipatnam; and one X-Band radar to replace the existing old and obsolete equipment. The multimet radars installed at Patiala and Srinagar for recording upper air observations will be used for weather surveillance as well; Ceilographs and skopographs will be installed at Trivandrum and Nagpur. Part-time surface observatories at Malada, Keonjargarh and Chandbali will be upgraded to departmental observatories. Automatic wind recorders will be installed at 4 Coastal stations.

18.44 The forecasting service is expected to improve with the introduction of round-the-clock watch at Bombay and Bhubaneswar; improvement in the forecasting service being rendered at Bhopal and Trivandrum; and procurement of a fast off-line curve plotter to be used with the Scientific Computer at New Delhi to completely automate preparation of prognosis charts. A Cyclone Operational Plan has been drawn up for improving the cyclone warning service. A Switching Computer will be installed at Bombay airport for high speed transmission of meteorological data; telecommunication facilities at many of the other forecasting offices will also be improved.

18.45 Agromet Advisory Units in 8 more States and 4 evapotranspiration stations and 11 soil moisture observatories are to be set up. A comprehensive programme for improvement in the Agromet services is being drawn up. For improving the Flood Meteorological Services, one more office is being set up at Agra shortly. A mini computer will be installed at Calcutta for computation of hydromet data.

18.46 Research programmes like World Climate Programme, Limited Area Modelling Programme, Improvement in Long Range Forecasting Techniques, Development of Positional Astronomy are also envisaged. A monsoon Activity Centre is expected to be set up at New Delhi. A high speed computer would be procured to facilitate both operational and research activities.

18.47 Other programmes include establishment of seismological observatories at Kalpa and Valmikinagar, marine research using Oceanographic Research Vessel (ORV) data, Research & Development in Instrumentation, and International Co-operation in Meteorology. Research schemes will also be taken up in the field of Physical Meteorology.

18.48 The major items of constructional works expected to be completed during the year include : DCP laboratory building at Pune; DWS laboratory building at Madras; extension of the workshop building and trainees hostel at New Delhi.

Indian Institute of Astrophysics (IIA)

18.49 This is a national centre for conducting research in astronomy, astrophysics and allied fields. During 1984-85, the erection of the 2.34 meter telescope in the new dome at Kavalur has started. The VAX 11-780 computer system has started functioning. Photometric and spectrometric observations by several types of stars and Nebulae were conducted by using new optical and electronics instruments with the 102 cm. telescope. Under the programme of high resolution astronomy, the discovery of the structure of the rings of Uranus and the outer rings of Saturn are major points of success. During 1985-86, image acquisition and guiding system for the 2.34 meter telescope will be installed. CCD imaging system would be used for processing with the VAX computer system; the necessary software and the computer programmes would also be developed. Additional facilities would be provided with the 102 cm. reflectors for carrying out newer scientific programmes, infrared studies, medium and high resolution spectra of stellar objects. In addition, a new photometer with a photo-multiplier tube having a high quantum efficiency and even response over the region of the emission from the Comet is planned to be used with the 75 cm. telescope at Kavalur. A modern microdensitometer system will be acquired for analysing the astronomical data.

Indian Institute of Geomagnetism (IIG)

18.50 IIG has undertaken various R&D programmes like micro pulsation recordings, theoretical studies in space plasma-magnetospheric-Ionospheric couplings, recordings of atmospheric electricity, recordings of

radio scintillations etc. During 1985-86, these programmes would be continued. In addition, several research programmes on measurement of electric and magnetic fields through balloon and rocket borne payloads, studies on earth's interior, acquisition and operation of audio-magnetelluric unit for geological studies setting up of division on marine electro-magnetism etc. would be initiated.

Indian Institute of Tropical Meteorology (IITM)

18.51 This institute is engaged in numerical weather prediction, Monex studies, hydro-meteorological studies, cloud physics and weather modifications etc. Major achievements during 1984-85 are : development of a model to explain the vertical distribution of aerosols ; development of a rocket payload using wire as sensor; development of a numerical baroclinic, barotropic and CISK instability model; and also development of a numerical model to study interaction between monsoon disturbances and planetary scale stationary waves. During 1985-86, in addition to the on-going research programmes, several other R&D activities are proposed to be initiated like numerical simulation and modelling experiments for initiating cold cloud seeding experiments, fabrication of rocket payloads with wire as sensor elements, development of electronic analog computer for flood forecasting etc. Global spectral general circulation model will also be developed and the effect of the carbon dioxide will be incorporated in the model.

Scientific and Industrial Research

18.52 The Department of Scientific & Industrial Research (DSIR) was created in January, 1985 and forms part of the Ministry of Science & Technology. This department has been set up with a view to bringing about greater coordination between scientific research and industrial development and to establish close linkages between the national laboratories of the Council of Scientific and Industrial Research (CSIR) and the major socio-economic Ministries/Departments.

18.53 During the year 1984-85, several laboratories under CSIR have made significant contributions. The expertise and resources available in CSIR laboratories were mobilised for attending to the immediate problems resulting from the toxic gas leakage from a pesticide factory at Bhopal; 'Operation Faith' to neutralise the remaining gas in the tank of the pesticide factory was also carried out under supervision of (DG), the Director General CSIR. Laboratories of CSIR participated in the major experiments in the Third Antarctica Expedition and in the analysis of the data collected.

18.54 Considerable progress was made towards the establishment of the Institute of Microbial Technology at Chandigarh and the Regional Research Laboratory. (RRL) Bhopal. Notable advances were made in the field of biological sciences; a beginning was made in the preparation of restrictive enzymes. The tower testing facility of SERC at Madras was commissioned. For strengthening linkages of the national laboratories with the various socio-economic Ministries and Industry, vigorous efforts were made to constitute Research

Advisory Councils of these laboratories, involving appropriate participation from those sectors. The Indian Petro-chemical Corporation Ltd. has commissioned a 10,000 tonne per annum capacity plant for production of acrylates based on a process developed at the National Chemical Laboratory, Pune; a solvent extraction process for the production of benzene has been made available to Bharat Petroleum Corporation by the Indian Institute of Petroleum; an indigenous plant of 900 tonnes per day capacity for low temperature carbonisation of coal, developed at Regional Research Laboratory, Hyderabad, has gone into production; 500 KW and 1 MW fixed frequency 'S' Band magnetrons have been developed by the Central Electronics Engineering Research Institute, Pilani. In all, 57 new processes went into production and 55 new processes were released to industry; 397 sponsored research projects were in operation during 1984-85; 139 schemes and 189 consultancy projects were completed. 68 patents were filed during the year.

18.55 Under the scheme of granting recognition to in-house R & D units, there were, in December, 1984, 883 units having valid recognition. About 200 such in-house R & D units incurred an annual expenditure of over Rs. 25 lakhs each; 64 of them spent over Rs. 1 crore each. During the year, the screening committee for according recognition considered 173 cases and accorded recognition to 99 in-house R & D units. Over 200 in-house units were examined and 180 units were accorded renewal.

18.56 Plant and machinery for producing items based on indigenously developed technologies is given a higher investment allowance at 35 per cent; 18 certificates were issued under this scheme involving plant and machinery costing Rs. 920 lakhs. This includes plant and machinery installed in the manufacture of Swaraj tractors, front end loaders made by Bharat Earth Movers, menthol and thymol manufactured by Camphor and Allied Products, etc.

18.57 An action plan relating to the National Register on Foreign collaboration has been prepared for implementation during the Seventh Five Year Plan. The Department has commissioned studies relating to the state of technology absorption in a few important fields such as tyres, tractors, lead acid batteries etc. It also organised a seminar on the role of consultancy in technology exports, and supported other activities in the area of technology cooperation among developing countries. Assistance to the Technology Policy Implementation Committee was provided on issues such as fiscal incentives for scientific research, measures to support innovation, unpackaging of technology, technology forecasting and evolving guidelines for International R & D collaboration. Close linkages were maintained in the area of technology transfer with the International Organisations such as UNCTAD, UNIDO, UNCTC, ESCAP, WIPO, UNDP etc. Significant contributions were made in strengthening the role of the Regional Centre for Technology Transfer as well as to the ongoing negotiation on an international code of conduct on transfer of technology.

18.58 The National Research Development Corporation India (NRDC) participated in the production of blood bags, developed by Shree Chitra Tirunal Medical Institute for Science & Technology. It prepared projects to be launched in a few African countries, and cooperated in the setting-up of projects in Guinea and Ethiopia. NRDC has also set up eight demonstration units to promote technology diffusion in various parts of the country.

18.59 The Central Electronics Ltd. (CEL) has carried out work on intensive technology development in the field of solar photovoltaics. It has now embarked upon setting up of 5 MW solar cells and module manufacturing facility.

Programmes for 1985-86

18.60 In the first year of the 7th Five Year Plan, CSIR will increase its efforts to undertake research programmes oriented to sub-serve the objectives of the national plan. The main emphasis will be on accomplishment of technological missions related to national priorities, capability build-up and excellence in basic research in a few areas, and identification of thrust areas in which indigenous capability will have to be developed for achieving self reliance over the future. Efforts will be continued to ensure that CSIR's R & D programmes become an integral part of major socio-economic sectors, such as agriculture, irrigation, coal, petroleum, chemicals, electronics etc. A major programme will be on modernisation of the laboratories and replacement of obsolete equipments, optimal use of the infrastructure and capabilities already created, redeployment and re-training of S&T personnel, etc. A Research Planning Group is proposed to be set up at the headquarter of CSIR to draw up a 10-year perspective plan. A new information system will also be introduced at CSIR headquarter. It is intended to generate a large basket of ideas and projects and select a few according to the availability of resources for implementation in a phased manner. The programmes of the national laboratories have been grouped into 26 major areas such as food and agriculture, agro-chemicals, housing, mining, electronics, oceanography, basic research etc. A large number of projects are in the areas of food and agriculture, health and family welfare and nutrition, energy, power and chemicals. In addition, there will be concentration on some priority areas, such as radio physics, atmospheric sciences, modern biology, geophysics, development of raw materials, construction technology; development and strengthening of linkages with user organisations and other scientific agencies will be ensured. The major new laboratories, viz. Centre for Cellular and Molecular Biology (CCMB), Hyderabad, Palampur complex in Himachal Pradesh, Structural Engineering Research Centre (SERC), Ghaziabad (recently shifted from Roorkee to Ghaziabad) and RRL, Bhopal will all be built up rapidly to their planned strength. Some of the facilities which will be created in the CSIR during 1985-86 will be treated as national facilities with a separate management structure e.g. facilities at the National Physical Laboratory (NPL), New Delhi for characterisation of material.

18.61 Under the scheme of special research programmes and grants-in-aid, CSIR fellowships would carry the new enhanced rates, but the number of fellowships during 1985-86 would not be increased. Resource requirements for 1985-86 for the on-going programme of construction of staff quarters with financial assistance from HUDCO have been fully provided. In addition, other amenities for the staff like community centres, dispensaries, schools etc. at a few places are also to be provided.

18.62 Several programmes/schemes, recently transferred from the Department of Science and Technology will now be implemented under the Department of Scientific & Industrial Research (DSIR). These include promotion of industrial research in industry, technology absorption and adaptation, transfer and trading in technology, national register of foreign collaborations, technology, evaluation and demonstration, support for R&D schemes of CEL and National Research Development Corporation, National Information System for S&T (NISSAT) etc.

18.63 Through the net work of national laboratories where wide based capabilities and infrastructure now exist, DSIR plans to make a sustained effort to support industrial and agricultural production, through increases in productivity, new products and new technologies. For this, close linkages will be fostered between the laboratories, industry and user organisations. Full efforts would also be made to undertake sponsored research for major socio economic sectors.

Space Science and Technology

18.64 The Indian space programme is executed by the Department of Space and its six establishments namely Vikram Sarabhai Space Centre (VSSC) Trivandrum, Space Application Centre (SAC) Ahmedabad, ISRO Satellite Centre (ISAC) Bangalore, Sriharikota Range (SHAR), Sriharikota, National Remote Sensing Agency (NRSA) Hyderabad and Physical Research Laboratory (PRL) Ahmedabad. The thrust of the space programme has been : to develop infrastructure skills and capabilities to design and build satellites, and satellite launch vehicles; to define areas of application such as telecommunications, broadcasting and remote sensing, and to design and fabricate instrumentation for such application; and to commission and utilise operational application systems to ensure benefits of space science and technology for the socio-economic development of the nation. The space research and development profile for the decade 1980-90 was approved by the Government in 1981. Most of the tasks envisaged in the profile for the Sixth Plan period have been completed. The 1985-90 space programme comprises mainly of the remaining tasks of the decade profile; it includes follow-up work on the ASLV/PSLV, IRS and Proto-INSAT (INSAT-II Test Spacecraft) projects as well as advanced R&D towards the space missions and activities during the nineties.

18.65 As a major step towards the realisation of the basic objectives set in the approved Space Profile

for the decade 1980-90, financial sanctions for the three major projects, namely, Augmented Satellite Launch Vehicle (ASLV), Polar Satellite Launch Vehicle (PSLV) and Indian Remote Sensing Satellite (IRS) were issued in June 1982. Sanctions for the Stretched Rohini Satellite Series (SROSS) Project (1 & 2), as well as IRS utilisation programmes were also issued in November, 1983 and May, 1984 respectively. The INSAT-II Test Spacecraft Project has been approved.

18.66 The first launch of ASLV is scheduled for 1986. All actions are progressing well to realise this target. Service structure and launch pad facilities as well as tracking stations are expected to be commissioned during 1985. Qualification testing of flight hardware is in full swing and assembly of flight packages is under way. The major part of wind tunnel testing has been completed. Force measurements on ASLV model with updated protrusion configuration has also been completed. Qualification tests were conducted on the first stage and second stage motors with RCNA 18 propellant. Qualification model of Stabilised Platform Inertial Navigation System (SPINS) was realised and tests on the vehicle guidance and electronics packages are under way. A 'Microarts' computer system was realised as part of the check-out system. Power System Consoles, Telemetry Test Set, Pyro and Sequencer Console, Tracking and Commands Console have been made ready. Design review, and identification of software for Shock Acoustic and Vibration Experiment (SAVE) package and Velocity Increment Determination Experiment (VIDE) package were completed; and evaluation of engineering model is under way. Mechanical and electrical interfaces between the vehicle and the spacecraft have also been consolidated.

18.67 The first launch of PSLV is scheduled for 1988. Preliminary design review has been completed. Orders have been placed for most of the critical components and materials through a special procurement effort. Major civil works and tasks relating to development of facilities are progressing at Valiamala, Mahendragiri and Sriharikota. The augmentation of the Solid Propellant Space Booster Plant (SPROB) and the Static Test and Evaluation Complex (STEX) are nearing completion. Major contracts for fabrication of booster motors cases have been awarded. The first lot of maraging steel plates from MIDHANI was realised and welding studies completed. Trial fabrication of the first stage mid-segment mock-up shell was completed. Rolling of the forged rings has been taken up. Technical and financial evaluation of the fabrication contract for the first stage motor case was completed and contracts awarded to two parties. Formulation trials of propellant composition for the first stage and third stage rocket motor casing has been completed. Detailed design of the second stage systems has been completed and action initiated to realise long lead items such as stage tankage, thrust structures, contour nozzles, propellants, etc. Fabrication works related to the establishment of test facilities, namely, the gas generator test stand, the principal test standard the auxiliary test stand are in good

progress. Many of the on-board telemetry, tracking and telecommand packages are now qualified for PSLV applications. Considerable progress has been made in the development of systems, procedures and facilities for the integration and check out of the vehicle. Integration and performance evaluation of Resins will be completed at the engineering model level and fabrication of qualification model will be carried out with indigenous sensors. Fabrication of engineering/qualification model will be taken up.

18.68 The integration of engineering model IRS systems is expected to commence shortly. The option to import a few critical sub-systems, which was originally planned as a contingency, has been terminated due to the satisfactory progress of indigenous development. The study and design phases of the IRS project have been completed and the project is now entering into the fabrication and testing phase. Fabrication of the structural/thermal model of IRS-1A was completed. Solar panels were tested for acoustic loads at the Indian Institute of Technology, Madras and Static Test on spacecraft structure was conducted at the National Aeronautical Laboratory (NAL), Bangalore. Fabrication of the mechanical and electrical systems of the engineering model of IRS-1A has been completed. Structure/Thermal model testing for thermal design verification, Engineering model integration and ground check-out activities, environmental testing of Engineering model, acoustic testing, Thermal Balance Testing using solar simulation facility for Engineering model, fabrication of flight model-1, integration and testing of flight model-2 etc. would be taken up in 1985-86. For the IRS Ground Station at NRSA, the centre is developing various sub-systems such as X/S band composite feed, modems and RF chains. The development of software for the different types of IRS data products has made substantial progress. The data products laboratory is being established. Identification of collaborating user agencies for the operational and quasi-operational application projects has been completed by NRSA. Interaction with user agencies has been initiated for finalising their participation, the signing, of a Memorandum of understanding etc. Preliminary activities on the 16 defined experiments will be initiated using data from other Satellites.

18.69 Stretched Rohini Satellite Series (SROSS-1) satellite is slated for launch in 1986, by ASLV in its first flight; it is mainly intended to monitor launch vehicle performance and to validate in orbit operation of new technological elements related to spacecraft main frame. SROSS-1 and SROSS-2 are presently being built. Mission definition and configuration of SROSS-3 has been completed. Preliminary design review of the payloads has also been completed. Static and dynamic tests of structural model of SROSS-1 is over. The Engineering model structure is expected to be completed soon. The detailed mathematical and thermal model test plan are being prepared. Ground support requirement and Ground Station configuration have been finalised. Data processing software is under development.

18.70 Activities in the various centres/units of DOS have been oriented towards the realisation of the major projects e.g. ASLV, PSLV, IRS and INSAT-II Test Spacecraft. R&D efforts at VSSC are aimed at achieving the milestones in fabrication/development and testing of various systems and sub-systems of ASLV and PSLV. Facilities for PSLV at Valiamala and Mahendragiri are nearing completion. At SHAR, work on augmentation of the ISRO Range Complex (IREX) STEX, ISRO Telemetry Tracking and Command Network (ISTRAC) and SPROB for ASLV and PSLV has gained momentum. APSU is carrying out works related to thrusters, propulsion and components for control power plant package for PSLV and ASLV launch vehicles as well as IRS spacecraft.

18.71 The ISTRAC TTC stations at Sriharikota and Ahmedabad continued tracking support for Indian satellites and for National Oceanographic and Atmospheric Administration (NOAA-7 & 8), USA and LANDSAT spacecraft. It is being expanded to provide TTC support for PSLV, ASLV and IRS with six Ground Stations and a spacecraft control centre. One of the two Ground stations at Sriharikota and one each at Trivandrum and Car Nicobar for ASLV support are expected to be commissioned by mid-1985. For IRS mission, a northern station, a second station at SHAR and a ground station and spacecraft centre at Bangalore are planned.

18.72 The PRL, which is a premier national institution carrying out research in Space Sciences, Astronomy and allied fields, will continue upper atmospheric studies using Rocket borne probes and vapour releases, as well as studies relating to the solar system, geochronology and aqueous geo-chemistry. During 1985-86, the infrared telescope at Gurushikar, Mount Abu will be installed and preliminary test and evaluation of its performance will be undertaken. A high resolution chronology of the glacial events in the last two million years in the sub-Himalayan region will be taken up. In addition support is being provided for the multi agency Indian Middle Atmosphere Programme. PRL also provides managerial support for the Udaipur Solar Observatory.

18.73 A new unit namely Development and Educational Communication Unit (DECU) was set up in December, 1983 out of the existing software systems Group and Kheda Communications Project (KCP) of SAC for the production of developmental and educational TV programme, related research and training, especially in support of INSAT services, in close co-operation with Doordarsan/Ministry of I & B. Research studies in Kheda and some impact studies in the fields of communications and Remote Sensing were initiated, DECU school and children programmes have been capsuled for use in the morning, area-specific, school transmission via INSAT. Training to Doordarsan production staff was provided in the fields of production, engineering, research and camera operations. In addition two major workshops were conducted for University Grants Commission (UGC) on Video for S&T education and Video for education respectively.

18.74 At NRSA considerable progress has been made in the establishment of the ground segment for reception, processing and dissemination of IRS data. The new facilities being established include terminal for receiving data from METSAT, Monocular Electro Optic Stereo Scanner (MEOSS) Pay load of DFVLR to be launched by SROSS-2, and an S-band telemetry terminal for SROSS. All the photographic data products taken over India, as part of the 'Terra Experiment' during the Indo-Soviet joint space flight have been taken up for analysis.

18.75 The national seminar on the National Natural Resources Management System (NNRMS) held in Hyderabad in May 1983 resulted in a 16-point resolution to provide direction to the future of remote sensing activities in the country. A presentation was made to Planning Commission on the evolution of NNRMS and the role of IRS. Following this, 9 National Task Forces for specific remote sensing applications in the area of Agriculture, Cartographic Representation of Data, Forestry, Geology, Oceanography, Marine Resources and coastal studies, soils and land use, Urban and Rural Studies, Water resources and Natural Resources Information System were constituted by the Planning Commission to go into technical suitability, data requirement, cost-benefits and integration of remotely sensed data with traditional techniques. Most of the Task Forces have completed their work and submitted their reports. On the advice of PC-NNRMS, 5 Regional Remote Sensing Service Centres (RRSSCs) are being set up at Dehradun, Jodhpur, Nagpur, Bangalore, Kharagpur to facilitate use of remote sensing data and generate necessary trained manpower for computer processing of remotely sensed data and also collateral data which will be used in resources management. Funding for the RRSSC by DOS, DST, ICAR and Deptt. of Mines/GSI has been finalised. The RRSSC at Dehradun has been established and is operational. It has conducted thematic training courses with the computerised Interactive Muthispectral Data Analysis System (IMDAS) developed by NRSA. Procurement of computers, inter-pretation and ground truth equipment and civil works for the centres have commenced; details of the software requirements are being worked out.

Science and Technology component of the Socio-Economic Sectors

18.76 The thrust during the Seventh Five Year Plan would be : to identify the S&T component in the plans and programmes of the major socio-economic sectors; formulate specific projects relating to this S&T Component and implement these, using the capabilities and infrastructural facilities of the existing institutions and research laboratories, and ensure that the scientific effort in the country plays an important role in enhancing efficiency and productivity, increasing employment opportunities, and generating new technologies. A sustained attempt has been made to identify projects with a large S&T component, that can be implemented in a mission mode and have direct relevance to industry. This is an ongoing process; and efforts will continue during the Seventh Plan period. The Steering Group on Science & Technology and Environment had suggested several S&T Programmes of great relevance

in these sectors. These have been taken note of during discussions concerning the Annual Plan of these Ministries and Departments. The achievements in some of the major socio-economic sectors in the S&T area and the programmes proposed to be undertaken in 1985-86 are briefly indicated below.

Agricultural Research

18.77 The Indian Council of Agricultural Research (ICAR) is the apex body for sponsoring, coordinating, and promoting agricultural research and education in the country. The main programmes of the ICAR include : Crop improvement including plant protection; Soil, Agronomy, Water Management and Agricultural Engineering; Animal Sciences; Fisheries Sciences; Biotechnology in Agriculture; Agricultural Economics, Statistics and Marketing; Home Science; Agricultural Education, Extension Education; Tribal Area Research; International Co-operation etc. The details relating to agricultural research and education have been given in the Chapter on 'Agriculture'.

CHEMICALS AND FERTILIZERS

18.78 The Pyrites Phosphates and Chemical Ltd. (PPCL) successfully conducted bench-scale tests for extracting elemental sulphur from Pyrites shales of Amjhore. A demonstration plant is being set up at Amjhore for extracting elemental sulphur from pyrite-ferrous shales.

The Project and Development India Ltd. (PDIL) have made notable achievements in their R&D Wing. These are : (i) Process Engineering of the one tonne per day demonstration plants for recovery of sulphur from Amjhore pyrites based on PPCL's know-how; (ii) Laboratory scale development of a process for manufacture of a balanced grade fertilizer called IMPEX. The R&D Complex of Hindustan Insecticides Ltd. (HIL) located at Dundahera in District Gurgaon has started functioning since January, 1984.

CIVIL AVIATION

18.79 The R&D Directorate of the Department of Civil Aviation is involved in promotion of R&D relating to : development and testing of materials and components for aircraft; design and development of prototype gliders/light aircrafts; research in airworthiness, and scientific laboratory investigation of accidents and in-service failure of aircraft and their components. During 1984-85, a second prototype diesel-engine powered winch TCW-14 has been successfully developed and constructed. During 1985-86, design and development of a light trainer aircraft LT-I for use of civil flying clubs and centres is expected to be completed.

COAL

18.80 The salient features of the results of some of the important investigations during 1984-85 are as follows :

1. A set of new formulae have been developed for optimum design of mine pillars leading to conservation of coal;

2. Means for extraction of coal below surface structures;
3. Successful development of steel pit prop as an alternative to wooden prop;
4. Hydrogeological investigations to predict water inflow;

In addition, important R&D activities have been conceptualised in the fields of coal conservation and coal transportation. Experimental projects on coal conservation by underground coal gasification and coal transportation by slurry pipelines are likely to be taken up in 1985-86.

COMMUNICATIONS

18.81 The projects undertaken by the Telecommunication Research Centre (TRC) include: modification to Strowger system such as Uniselectors type PARX and electronic modules of relay sets; development of programmes for computerisation of net-work planning for planning of local and long distance telecommunication network; improvements in telex working; development of switches such as message switching system for automatization of telegraph network; data communications services through public switched telephones and also by a dedicated data switching network. In the Radio Transmission Group, the project on modification to analog M/W systems, development of VHF/UHF systems and digital microwave systems will be continued. Work will be taken up on mobile telephone systems, propagation studies etc. In the satellite communication division a pilot project on random switching network and projects for satellite-based rural telegraph network for north-eastern region would be taken up.

Indian Telephone Industries (ITI)

18.82 A number of analog microwave systems both broad band and narrow band, and associated equipment in the 2, 4, 6, 7, 8 GHz bands have been developed and have gone into production. Digital UHF systems are in advanced stage of development and under field trials. In the Satellite communication area, equipment for FDM-FM as well as FM-SCPC transmission have gone into production. The whole range of analog multiplex systems, for defence specifications and P&T specifications, have been completed and have gone into production. Work on optical fibre systems for Defence applications has been completed. Microprocessor controlled telemetry and telecontrol systems and CTC systems have gone into production. In the area of Electronicswitching, work on the PAX family was consolidated. Work was also completed on 200 line exchange and its variants which have gone into production. A 100 line rural exchange is under field trial. The commercial field trial model of Digital ILT has been switched over to public and is working satisfactorily since July 1984. A notable development has been the setting up of Large Scale Integration (LSI) design and silicon wafer fabrication facilities for the development of custom bipolar and CMOS chips.

During 1985-86 the following projects are proposed to be taken up:—

- (1) 2/7 GHz Digital Radio systems for non P&T users.
- (2) Development of techniques to meet EMI/EMC requirements for Microwave system.
- (3) Multiaccess digital UHF/VHF system.
- (4) Evaluation of Fibre optic components like Fibres, devices etc.
- (5) Development of digital multiplex 556 Mb/s.
- (6) Computer based supervisory control system.

Hindustan Teleprinter Ltd.

18.83 Work has taken upon the development of 300 BPS and 1200 BPS Data Modem for two wire PSTN Working, low level signalling and telex electronic control unit for telex network. Serial Electronic Exclusive Key Board (SEEK), developed to work with SITT system of P&T, was productionised.

Monitoring Organisation

18.84 The S&T unit established in 1983 successfully developed prototypes of sophisticated electronic frequency counter/comparator and FSK Units. These prototypes are now being taken up for quantity production.

DRUGS AND PHARMACEUTICALS

18.85 The major product range of Hindustan Antibiotics Ltd. (HAL) is antibiotics produced by fermentation process. The following projects have been planned:

- (1) Improvement of penicillin, streptomycin and gentamycin producing strains using conventional mutagenesis and genetic engineering techniques;
- (2) Bio-technology and bio-engineering on the above strains, using fermentation process and developing better controls strategy for economising the process;
- (3) Development of synthetic and semi-synthetic drugs as a programme for expansion and diversification of the product range;
- (4) Development of immuno—diagnostic kits;

18.86 The Bengal Chemicals and the Pharmaceuticals Ltd. (BCPL) has been working in the field of bulk drugs and has developed new bulk drugs and a new product mix which includes sustained release formulation, drug intermediates etc. The Smith Strain—Street and Pharmaceuticals Limited (SSPL) is to modernise its research and development department and set up a formulation and packaging standardisation centre with a view to developing further product formulation and substitutes for imported ingredients. The Indian Drugs and Pharmaceuticals Ltd. (IDPL) proposed to develop new strain for penicillin and to modify the formulation facilities for expansion of penicillin production.

EDUCATION

18.87 Considerable emphasis has been given to improving the quality of science teaching in schools. For creation of computer awareness and for a pilot programme on computer literacy and studies, 250 schools were selected. Under the "Evaluation, Surveys and Talent Nurturing Scheme", a few research programmes were undertaken with the assistance of State Boards of School Education to improve their examination practices. Under the 'Educational Technology Programme' Educational Technology Cells (ET Cell) were established in 21 states. A National Science Centre is proposed to be set up during 1985-86 for displaying experimental models and projects and for exhibitions. The Ministry of Education, in collaboration with the Department of Electronics is envisaging the introduction of computer literacy programme in 1000 more schools. A Nuclear Science Centre is being established at Jawahar Lal Nehru University (JNU), New Delhi as a common research facility. A Science Information Service has already been set up at the Indian Institute of Science, Bangalore. 4 Mass Communication Research Centres for strengthening the programmes for utilisation of educational technology have become operational with assistance from the University Grants Commission. On the basis of recommendations by SACC, the UGC had initiated during 1983-84, a programme for strengthening on a highly selective basis the infrastructure for research and post-graduate education in science and technology in the universities. The scheme has been operating under a high level Committee in Universities called the Standing Committee on strengthening of Infrastructure for Science & Technology (COSIST), 37 departments have been selected for financial support after a rigorous selection.

Technical Education

18.88 The five Indian Institutes of Technology (IIT) at Kharagpur, Bombay, Madras, Kanpur and Delhi have further expanded their infrastructural facilities by way of sophisticated equipment. Out of 15 Regional Engineering Colleges, 13 colleges have facilities for post graduate and doctoral programmes. Current emphasis is on modernisation of laboratories, provision of computer facilities and expansion of research facilities etc. 19 R&D projects were carried out by the National Institute of Foundry and Forge Technology at Ranchi. Under the scheme of "Community Polytechnics", 46 polytechnics were selected to act as focal points for transfer of technology to the rural community and to promote rural development on scientific lines. A high powered Review Committee on post graduate education and research in engineering and technology was set up. The major recommendations of the Committee have been accepted. It is proposed to set up an International Centre for Science and Technology which will operate through a network of existing institutions, and serve as a Resource centre as well as a Centre for co-operative research. Special Institutions/Centres for Appropriate Technology are proposed to be established, one in each region, for transfer of Rural/Appropriate Technology to the rural areas directly, and also by using already available infrastructure and facilities

of other technical institutions. It is also proposed to take up an "Experimental Pilot Project for Application of Science and Technology for total Rural Development" to make educational efforts more relevant to the live situations in the rural areas.

ELECTRONICS

18.89 Technology development by the Department of Electronics is supported mainly through two mechanisms, namely, the Technology Development Council (TDC) and the National Radar Council (NRC). Recently a high-powered National Microelectronics Council (NMC) has been set up to co-ordinate and promote, R&D and technology development in the vital and strategic area of micro-electronics. In addition to these mechanisms, major thrust areas for technology development have been identified, e.g. electronics switching systems; LSI/VLSI; computer architecture; software engineering; special microwave products; ultra pure silicon, and so on. More than 270 R&D projects, spread over about 80 organisations, have been funded under the TDC programme so far. Of these, 190 projects have been completed. So far about 78 projects have been funded under the NRC programme; 25 projects have already been completed. These include different types of radars required for meteorology and aviation and automatic test equipment. The radar transponder beacons developed for Light Houses and light ships are undergoing field evaluation. Important new development projects taken up during the year are: airport surveillance radar to cater to specific requirements; development of ferrite material; as also design and manufacture of ferrite phase shifters. About twenty more projects are in the pipeline for consideration of the NRC. A major programme in the LSI/VLSI area is under way in the Semiconductor Complex Limited (SCL). The computer aided design (CAD) hardware of SCL is now fully operational, and all the software packages for LSI design have been installed. A dedicated group has been set up to design analog devices in association with IIT Delhi. Keeping in line with the recommendations of the LSI/VLSI Task Force, SCL has started development of 3 micron and 2 micron production capability. Specific technology development projects have been started with a view to achieve 3 micron single metal and double metal process by 1985-86 and 2 micron process by 1986-87. The progress of development of E² PROM devices in association with American Microsystems Inc., is on schedule. In addition to the above programmes of the Department of Electronics, there is a great deal of S&T development in the field of electronics, supported in a major way by the Departments of Atomic Energy, Space, Telecommunications, Defence, Research and Development, Scientific and Industrial Research and to a lesser extent by various other concerned Ministries/Departments. There is also significant S&T work on electronics in major public sector undertakings such as Bharat Electronics Ltd., Indian Telephone Industries Ltd. ECIL, Keltron etc.

FOOD

18.90 During 1984-85, the Indian Grain Storage Institute (IGSI) has constructed 176 non-metallic and

metallic storage structures of improved design for demonstrating their use in farm level storage. 7 insecticides, 6 Rodenticides and 2 fungitoxic compounds were tested for suitability at laboratory/field levels for use in food grain storage, several samples of food grains were qualitatively analysed for determination of pesticidal contamination. Several programmes are proposed to be initiated during 1985-86; these include: alternative pest control methods; development of suitable grain driers of different capacities; improvement of existing bag storage facilities etc. Under education and training activities, it is proposed to start : a post graduate diploma course in food grain storage and inspection; development of laboratory testing facilities; extension programmes to assist the State Governments by providing improved storage structures and storage pesticides; and establish quality control cells in some selected States.

FORESTS AND WILD LIFE

18.91 To give greater impetus to the Forestry Sector, a new Ministry for Environment and Forests was set up in January 1985 under which a separate Department of Forests and Wild Life has been created.

Forest Research Institute (FRI), Dehradun

18.92 The major thrusts during 1984-85 have been tree improvement, regeneration, growth and management statistics of forest stands including soil to ensure sustained productivity. Under silviculture research, experiments were conducted on biomass production based on fast growing short rotation crops in semi-arid zones. In the area of biological research, larvae of poplar defoliator were bioassayed against 14 conventional insecticides. "Larval transfer method" for laboratory testing of timber was perfected. In the area of forest products research, the solar timber seasoning kiln developed recently at FRI as part of its energy conservation programme has received wide recognition. So far 21 kilns of various capacities have been erected in different parts of the country. During 1985-86, special efforts will be made to initiate research on social agro-forestry to generate employment for rural landless poor, and to establish a resource base for starting small scale and cottage industries. In the field of silviculture research, the main thrust will be on : productivity of improved biomass and energy plantations; and creation of genetically improved material and its identification and multiplication through advanced techniques like Isoenzymes, micro-propagation and tissue culture; writing of forest floras; identification of plants; study of anatomical structure of wood and protection of seeds; nursery stocks; plantations; prevention of forest and harvested wood raw material from degradation by various insects and fungal pathogens. Appropriate control measures would be undertaken in the field of Biological Research. Investigations on various pathological diseases, viz., root-rot, foliage rusts, steam cankers, lead spots, needle blight etc. will be continued, and measures for controlling them worked out. Educational programmes will be organised at the Wild life Institute of India; and centres on Wetland Ecology, Arid Zone etc. will be established. In addition, captive breeding programme of different endangered species of animals and birds, prior to their rehabilitation

in protected areas of their former range of distribution, will be initiated.

HEAVY INDUSTRY

18.93 A Central Institute for Metal Forming (CMF) has been set up at Hyderabad. The Institute has drawn up long range R&D plans for developing metal forming systems which are currently considered advanced technology in Europe and USA. A significant achievement of the Central Machine Tool Institute (CMTI) during the year was the development of a decladding machine for profile machining of three dimensional curved surfaces in atomic reactors. A new programme on computer aids for metal-working industries has been commissioned during the year for providing CAD/CAM facilities to industries. The Bharat Heavy Electricals Ltd (BHEL) initiated work for setting up a Pollution Control Research Institute at Hardwar with UNDP assistance. It is participating as a lead agency in the National High Voltage Direct Current (HVDC) Transmission Experimental Line Project. Through its R&D efforts, BHEL has developed ceramic lining materials "CERALIN" and ceramic sound absorbers which are made of hard porcelain. The Hindustan Machine Tools Ltd. (HMT) has developed new technologies in the field of metal cutting machine tools. The Bharat Heavy Plates and Vesals Ltd, (BHPV), has successfully developed the individual Quick Freezing Unit (IQF), the first of its kind in the country, for freezing of sea foods using liquid nitrogen. The heavy machine building plant of the Heavy Engineering Corporation (HEC), has designed a completely new HT (6000 volts) electric system for OB drills to suit Indian mining needs. The Bharat Pumps and Compressures Ltd. (BPSL), through its in-house R&D, has developed slurry pumps required for super charge system in mud pumps. The Automotive Research Association of India (ARAI), has developed expertise for : the design of Taper leaf springs for light commercial vehicles and cars; adjustable and collapsible steering systems for safety; and aerodynamic cabs and bodies for vehicles to reduce drag and to improve fuel efficiency. Work on the establishment of a Fatigue Testing Laboratory is in progress and is expected to be completed in 1986.

HOME MINISTRY

Forensic Science and Police Wireless

18.94 The major emphasis with the new Plan allocations will be on : acquiring essential sophisticated equipment; re-organisation of professional staff; training and re-training; organising special courses, refresher courses, workshops and seminars; etc. The creation of modern laboratory facilities and taking up of R&D projects in the area of forensic science has been proposed. The activities of the Institute of Criminology and Forensic Science will be mainly in imparting training in the field of criminology and forensic science sector R&D activities are proposed to be undertaken in the areas of analysis of various writing materials and development of new and improved techniques in photography for application to question documents. Research & Discovery Committee will be set up for laboratories in the area of Forensic Science.

The Police Wireless Network

18.95 Several sophisticated equipments are proposed to be installed like : dedicated speech channels; intelligent terminals; mobile earth stations; network analyser etc. A major restructuring of the R&D Cell is proposed. An interdisciplinary Research Advisory Committee would be set up to advise on the R&D aspects.

INDUSTRIAL DEVELOPMENT

18.96 The Bharat Ophthalmic Glass Ltd. has entered into a formal collaboration agreement with CSIR-CGCRl for the transfer of technology and know-how for the commercial bulk manufacture of 17 types of special optical glass. The corporate R&D centre of Hindustan Cables is actively engaged in perfecting new cable designs, new manufacturing techniques, joining methods and fault location techniques to ensure improved performance. The Hindustan Photo Films Manufacturing Company is setting up a full-fledged R&D centre at Ootacamund to expand its R&D activities. During 1984-85, the Cement Research Institute of India (CRI) pursued various schemes comprising technological services support to the cement and related building materials, cement machinery and construction and allied industries. The Central Pulp and Paper Research Institute undertook twelve major research projects on high yield pulping of indigenous raw materials and evaluation of pulping characteristics of agricultural residues, etc. The important projects proposed for the year 1985-86 include improved pulping of dense hardwood by destructuring of the chips, improvement of cold soda pulps through modified refining techniques, use of modified chemicals additives for paper strength improvement etc. The National Small Industries Corporation (NSIC) Ltd. has taken up the development of technology in respect of fuel briquetting and soap making. An improved hand operated and mechanised potters wheel has been designed.

INFORMATION AND BROADCASTING (I&B)

18.97 Studies and projects related to the immediate needs of AIR and Doordarshan in the areas of VHF—UHF, TV Studio equipment, TV transmitters, multilingual attachments, scale model measurements of antenna and colour TV systems have been taken up. Other important programmes initiated include MF/HF propagation, stereophonic broadcasting, TV transmitting and receiving aerials, TV transmitting equipment, digital TV, audio and acoustic engineering studies, development of MF/HF equipment and FM transmitting equipment, Satellite sound broadcasting etc. Seventeen Thonstle TV transmitting Antenna were designed and supplied to the Doordarshan network which helped in timely commissioning of many of the new TV centres. Work on a 'Big Wheel' type VHF TV transmitting antenna has been initiated.

IRRIGATION

18.98 The Central Water & Power Research Station (CWPRS), Pune is the major national facility for specific R&D work on major interconnected aspects

of water and energy resources pertaining to the fields of irrigation, river behaviour, flood control, development of river basins, ship model testing etc. It has been providing advice in the areas of Coastal Engineering Research, Hydraulic structures instrumentation, Hydromechanics, Calibration of closed conduit flow meters etc. The setting up of a water and power information system will be completed in 1985-86. The advanced research, consultancy and developmental work of the Central Soil and Material Research Station (CSMRS), in the areas of geomechanics and material sciences would continue during 1985-86. Research at the National Institute of Hydrology (N/H), Roorkee, pertains to hydrologic analysis of stream flows in a basin, watershed models, studies on storm precipitation for flood estimation etc. Other S&T areas that would be taken up by NIH would cover water quality, remote sensing, snow and glacier hydrology, nuclear techniques in hydrology etc.

LABOUR

18.99 The Ministry of Labour has two plan schemes involving S&T components viz. (i) Augmentation of R&D capabilities of Directorate General of Mines Safety (DGMS), whose activities include gas surveys, air borne dust surveys, noise surveys, field study of mine fires, investigations into causes of accidents, monitoring of vibration due to blast etc.; and (ii) Development of mines rescue apparatus and the setting up of Laboratory facilities for breathing apparatus used in mines.

MEDICAL RESEARCH

18.100 The Indian Council of Medical Research (ICMR) is the apex national body under whose auspices the bulk of biomedical research in the country is carried out. The ICMR has identified thrust areas in each broad biomedical field, and adopted a Task Force Approach for the rapid execution of time-bound and specific, goal oriented research programmes. The Council has been successful in diversifying the areas of biomedical research and in strengthening the infrastructure for biomedical research. High priority is being accorded to reproductive biology and family planning programmes, both in the urban and rural areas, to control communicable diseases and to improving the nutrition of weaker sections of the society. Maternal and Child health will receive special attention in order to reduce the high mortality rates in this age group and to facilitate the acceptance of family planning. The existing programmes will be strengthened and augmented by clinical and field trials encompassing a wide range of contraceptive technologies. In the field of communicable diseases, emphasis will be on the major diseases affecting the country such as tuberculosis, leprosy, cholera and enteric diseases. In cholera and enteric diseases, the bacterial and viral spectrum of causes will be further investigated. Work will be initiated for developing and testing newer vaccines such as oral anti-cholera and typhoid vaccines and a vaccine against the recently introduced epidemic strain of Shigella, Shigae, Type-I, which is resistant to multiple antibiotics. The programme of treatment of oral rehydration in diarrhoea

with home made and home available fluids is proposed to be pursued vigorously. Non-communicable diseases like: cardiovascular rheumatic fever and rheumatic heart disease; mental health; dental health; occupational disorders; etc. will be supported more effectively. The work of the National Cancer Registries will be expanded. Activities on Informatics will be intensified through popular publications, audio-visual programmes (both short films and slide tapes presentations) radio, television and INSAT-B programmes on priority areas of health identified by ICMR.

MINES

18.101 The major schemes under implementation include: micro seismic network for rockburst research; conductivity/magnetic ore sorter for pre-concentration of copper ore; extraction of cobalt from copper converter slag; extraction of gallium, tungsten, tellurium etc. as valuable by products; extraction of metals from polymetallic ocean bed nodules; development of new aluminium alloys; rock mechanic investigations; geological/geochemical investigations on sulphide ore bodies; experimental magnetotelluric studies, development of instruments and techniques for geothermal exploration; alloy phase diagrams; study of trace elements; optimisation of exploration inputs etc.

NATIONAL TEST HOUSE

18.102 A major programme under implementation is to update its equipment facilities and technology at the head office as well as in the regional offices. During 1984-85 a large number of consultancy and advisory services were provided to manufacturers on premature failure of machines, incorrect designs of prototype equipments, expert opinion in case of dispute etc. NTH has been considered as echelon-II level calibration centre. During 1985-86, the organisation will, in addition to continuance of the current activities, identify the areas for further competence building in the field of testing and calibration. It will acquire laboratory space for the Calcutta office and dispose of obsolete equipments no longer suitable for its testing.

NON-CONVENTIONAL ENERGY SOURCES

Solar Energy

18.103 Research efforts on silicon material for Photo Voltaic applications were continued. Other projects relate to the casting of polycrystalline silicon for solar cell fabrication. The integrated programme on amorphous silicon solar cells was strengthened. Other areas where R&D efforts are being carried out are: Photo-electrochemical cells, thin film devices based on Cadmium Telluride, Copper Indium Diselenide and other materials.

Biomass

18.104 A task force has been set up to work out a stepped up plan of action for exploitation of water

hyacinth for generation of biogas. Two new projects for utilisation of aquatic and marine weeds for biogas production, and augmentation of biogas production with substrate bio-degradation have been taken up during the year.

Wind Energy

18.105 R&D projects for combinations of wind pumps for operation with animal power or hand pumps have been sponsored. The Wind Energy Centre at Allahabad which has carried out further modifications in the 12-PU-500 windmills and in the development of small multiblade horizontal axis aerogenerators (unit size 1 KW-3KW). A three-year joint Indo-FRG project for the design and development of a 20 KW vertical axis wind electric generator has also been taken up.

Micro Hydel Power

18.106 An Alternative Hydro Energy Centre at the University of Roorkee has been established with a view to developing and installing new and improved versions of Micro Hydel Energy Systems. The Centre has taken up 3 Demonstration projects of various categories.

Ocean Energy

18.107 A special cell set up at the Indian Institute of Technology (IIT) Madras, for development of Ocean Thermal Energy Conversion (OTEC) technology, has carried out the preliminary work and established the feasibility of 1 MW OTEC plant at Kavaratti. Based on this work, the preparation of the Detailed Project Report has been assigned to a public sector engineering consultancy firm, Metallurgical & Engineering Consultants (India) Limited (MECON). This report is expected to be available by the end of 1985.

R&D on Battery Powered Vehicles

18.108 Ten Electro Vans fabricated through BHEL are being used for demonstration and extensive trials.

PETROLEUM

OIL AND NATURAL GAS COMMISSION (ONGC)

18.109 The K. D. Malaviya Institute of Petroleum (KDMIP) provides major R&D back up to ONGC in the area of hydrocarbon exploration and implements a number of R&D programmes in collaboration with various institutions and universities. During 1985-86, about 200 research projects, 26 ongoing S&T projects and about 28 new S&T projects will be in hand. The Institute of Drilling Technology would concentrate in the area of drilling under high pressure and high temperature conditions, standardisation of casing policies, combating drilling problems like stuck ups, blow out prevention, designing of bottom hole assemblies, development of mud system and drilling mud and cement additive. The research programme of the Institute of Reservoir Studies covers designing

and monitoring of polymer pilot projects at Jhalera and Sanand; insitu combustion Pilot Plant at Lanwa & Kalol; Misceller polymer pilot project at Ankleswar; and CO₂ Pilot project in Kalol—1 for enhanced oil recovery (EOR). Two institutes are to be set up near Bombay—an Institute of Engineering and Ocean Technology for undertaking R&D activities in the field of Ocean Engineering and Technology and an Institute of Production Technology for the purpose of identifying and implementing improved production techniques.

INDIAN OIL CORPORATION (IOC)

18.110 The R&D Centre at Faridabad has already completed phase-I of its programme which included development of various petroleum products with special emphasis on lubricating oils, greases and specialities. In the second phase, it is proposed to set up facilities for development of high performance lubricants, lubricants for new equipments and synthetic lubricants. The R&D centre also supplies formulation know-how for all the products blended and manufactured by IOC blending plants.

LUBRIZOL INDIA LIMITED (LIL)

18.111. The LIL's R&D Centre will continue work on the development of substitutes for imported raw materials, studies on evaluation of flow improvers for Bombay High crude, synthesis of sulfonate from indigenous heavy alkylate bottom and EP additives from indigenously available non-edible oils. During 1985-86, R&D programmes in the Petroleum sector will also be undertaken by the R&D Centre of Engineers India Ltd. (EIL) at Gurgaon, the laboratories of IPCL and HPCL at Bombay, the R&D Department of Madras refineries and the Indo-Burma Petroleum (IBP) Co.

PETRO-CHEMICALS

18.112 In the field of petro-chemicals, S&T work on organic chemistry, polymers, catalysts, process development ect. is being carried out by the R&D Centre of IPCL which is being expanded. Three pilot plants are being set up for the study of catalysts and processes for polyolefins, melt and wet spinning of synthetic fibres and manufacture of catalysts used in hydrocarbon industries.

POWER

Central Power Research Institute (CPRI), Bangalore

18.113 The schemes to be taken up during 1985-86 include an experimental line facility for UHV AC transmission, a Power System Simulation and Study Centre, 2500 FVA SC testing station, contractor testing scheme and setting up of a few Regional Testing Laboratories.

Central Board of Irrigation and Power (CBIP), New Delhi

18.114 The studies pertain to boiler tube failures in thermal power stations, water chemistry, performance of induced draft fans, erosion in pulverised

coal pipes and burners, vibration analysis on turbines, performance of control valves etc.

Geothermal

18.115 Two pilot projects—Parbati valley project in Himachal Pradesh and Puga valley project in Jammu & Kashmir have been taken up. The programme for 1985-86 for Puga valley is the completion of the drilling of a 500 m hole, well testing and continuation of non-electrical utilisation studies such as space heating of temporary huts.

Tidal Power Generation

18.116 A revised scheme for the development of tidal power in the Gulf of Kutch was sanctioned in September, 1984. According to this, most of the field investigations were to be completed speedily. Collection of wave data and hydrological data of rivers will continue upto 1986 and techno-economic feasibility studies for tidal power generation will be completed by March, 1987.

Energy Conservation

18.117 To oversee the programmes of energy conservation in coordination with the Petroleum Conservative Research Association (PCRA), the Rural Electrification Corporation (REC), SEBs etc., a separate wing is being constituted in the Department of Power. The REC is implementing a pilot programme for rectification or improvement of pumps sets in eight States. Several sub-groups of the Standing Group on Electrical Energy conservation will undertake in-depth studies on energy audit, incentive schemes, modification of standards of equipment etc.

LCV Gas Warm up

18.118 The R&D project on low calorific value gas system for the 2 × 60 MW boilers at Ennore Thermal Power Station is progressing well and is expected to be completed by 1986.

RURAL DEVELOPMENT

18.119 The Council for Advancement of Rural Technology (CART) is a nodal agency for co-ordination of efforts relating to the development and dissemination of rural technologies. It sanctioned 21 projects during 1984-85 based on the recommendations of a panel of scientists. The projects mainly covered the areas of ceramics, biogas, water wells, food consumption, bio-mass etc.

SHIPPING AND TRANSPORT

Roads

18.120 Major research and planning schemes are continuing on: highway design study directed towards determination of maximum discharge, scour and efflux for design of well foundation; estimation of lateral pressure of soil for the design of well-foundations for bridges; laboratory studies for improvements in expansion of joint bridges etc.

Road Transport

18.121 Work on modernisation of bullock carts has been completed and Inter-modal studies for road transport will be undertaken during 1985-86.

Inland Water Transport

18.122 NRSA has completed a hydrographic survey of waterways and furnished the survey output data. Studies on the improvement of river craft, jetties, suitability of low horse power engines etc. will be initiated during 1985-86.

Ports

18.123 The sponsored research schemes relate to : artificially developed shipping channels; forces on marine structures for evolving economical design criteria; coastal erosion and protection, corrosion of iron, steel and RCC structures etc.

Ship building

18.124 Updating of technology and design inputs for floating/fishing industry and basic design and research facilities at the Hindustan Shipyard Ltd. (HSL), will be undertaken during 1985-86.

SOCIAL WELFARE

18.125 The scheme relating "Research on Rehabilitation of Handicapped" would receive adequate S & T inputs to develop appropriate aids and appliances for the handicapped, and to ensure an optimal system for production and distribution of these aids.

STEEL

18.126 At the R & D Centre for Iron and Steel (RDCIS) sustained efforts are being made to develop technologies and to incorporate technological innovations taking place elsewhere in order to bridge the technology gap within the shortest possible time. So far

74 research projects in different technological areas have been completed. Results of many of the completed projects have been gainfully incorporated into regular plant practice. Some of the major schemes are : demonstration plant for lime dust injection at Durgapur Steel Plant (DSP), direct reduction pilot plant; modernisation of steel plants; pilot coke oven complex at Ranchi; beneficiation of coal; creation of plated through hole (PTH) facilities, INRED and KR processes; etc. The laboratory complex of the R&D Centre is getting progressively commissioned, most of the equipment has already been received and is in operation and the remaining is in the pipe line. The construction of the Information and Documentation Centre and Computer Centre is also progressing. The Computer is expected to be commissioned by March, 1986.

TEXTILES

18.127 Eight cooperative research association under the administrative control of the Department of Textiles took up a number of projects during 1984-85 and continued their scientific activities in the areas of national interest. Appreciable results have been obtained in the field of spinning, weaving, wet processing, energy conservation, quality improvement, computer colour matching etc. The associations have identified areas for improvement of yield of cotton, improvement of its quality, improved utilisation of India cotton, conservation of energy, application of micro processors, utilisation of agro-wastes, utilisation of non-conventional energy, measures for health and safety, pollution control etc. They will take up projects in these areas during 1985-86. The Indian Jute Industries Research Association has been working on cost reduction quality improvement, improvement in productivity, diversification of product range etc. in jute industry.

Outlays

18.128 The 1985-86 outlays for Science & Technology are given in Annexure 18.1 and 18.2.

Science and Technology Plan outlays

(Rs. Crores)

1	2	1984-85			1985-86 outlay		
		BE	RE	Total	Centre	States	UTs
		3	4	5	6	7	8
1.	Atomic Energy (R & D)	92.73	94.16	55.00	55.00	—	—
2.	Environmental & Ecology/Prevention & Control of Air and Water Pollution and Ganga Action Plan	13.52*	12.17*	48.98	35.75	12.84	0.39
3.	Ocean Development (S & T)	22.44	17.74	20.00	20.00	—	—
4.	Science & Technology	47.81	46.35	108.17	94.10	13.36	0.71
	(a) Meteorology	+	+	15.00	15.00	—	—
	(b) Science & Technology	47.81£	46.35‡	80.67	66.60×	13.36	0.71
	(c) Meteorology Component of INSAT Space Segment @	+	+	12.50	12.50	—	—
5.	Scientific & Industrial Research	57.95	60.43	69.60	69.60	—	—
	(a) CSIR	56.00	59.03	67.00	67.00	—	—
	(b) Schemes transferred from DST to DSIR §	1.95	1.35	2.60	2.60	—	—
6.	Space (S & T)	108.78	104.45	140.00	140.00	—	—
7.	National Test House	3.29	2.19	@@	@@	—	—
8.	Forensic Science and Police Wireless	—	—	3.00	3.00	—	—
	Total	346.52	337.49	444.75	417.45	26.20	1.10

* Excluding prevention & Control of Air and Water Pollution.

+ Shown under Transport Sector.

£ Including Rs. 14.41 crores under States/UTS.

‡ Including Rs. 12.53 crores under States/UTS.

@ The Department of Space has operational/budget responsibility for this programme.

§ These do not include the schemes on TASS and Promotion and Support to consultancy Services which were transferred to DSIR later on.

@@ Transferred to I & M Sector.

× Includes Rs. 1.50 crores for Flood Plain Joining Surveys.

S & T outlays under Socio-economic Ministries/Departments (Central Sector)

(Rs. crores)

Socio-economic Sectors		1984-85		1985-86 outlays
		BE	RE	
1	2	3	4	5
1.	Agriculture (ICAR)	78·00	73·00	75·00
2.	Chemicals & Fertilisers	3·26	1·70	6·16
3.	Civil Aviation	0·50	0·46	0·45
4.	Coal	2·91	2·30	5·00
5.	Communications	14·23	18·25	30·10
6.	Drugs & Pharmaceuticals	2·22	1·46	1·88
7.	Education	44·00	NA	NA
8.	Electronics	6·60	3·35	7·00
9.	Food & Civil Supplies	2·20	1·05	2·40
10.	Forests & Wild Life	3·07	3·81	6·45
11.	Heavy Industry	15·88	14·26	17·88
12.	Health (ICMR)	13·10	13·10	30·00
13.	Housing	0·25	—	0·90
14.	Industrial Development	6·04	6·98	7·10
15.	Information and Broadcasting	0·81	0·94	0·91
16.	Irrigation Development & Water Management	4·16	3·65	6·59
17.	Labour	0·37	0·22	0·67
18.	Mines	4·30	4·54	4·38
19.	Meteorology	14·50	12·29	+
20.	National Test House	*	*	2·90
21.	Non-Conventional Energy Sources	14·45	11·44	25·96
22.	Petroleum & Petrochemicals	50·28	29·15	76·15
23.	Power	17·66	14·26	15·82
24.	Railways	—	—	NA
25.	Rural Development	2·60	1·50	2·00
26.	Shipping & Transport	1·33	1·02	3·22
27.	Social Welfare & Nutrition	0·30	0·23	0·25
28.	Steel	22·05	12·90	15·62
29.	Textiles	9·89	NA	NA
Total (Sectors)		334·96	231·86@	344·79@

NA Stands for information not available.

+ Shown under S & T Sector (Annexure 18·1)

* Shown under S & T Sector (Annexure 18·1)

@ Excluding the S & T outlays under Education, Railways and Textiles,

CHAPTER 19

ENVIRONMENT AND ECOLOGY, FORESTRY AND WILD LIFE

ENVIRONMENT AND ECOLOGY

The need to bring about sustainable development in harmony with the environment has been recognised for some time now, and been referred to explicitly in the Sixth Plan document. The Government of India created a Department of Environment in 1980 with responsibility for : environmental policy, planning, management & coordination; environment research promotion; survey and regulation; developing environmental awareness, education and training; natural living resource conservation; pollution monitoring and control; environmental impact assessment; eco-development; environmental information and law; international cooperation. During the Sixth Plan period, it has been able to initiate a number of programmes; and closed operational linkages have been established with concerned Ministries, Departments and voluntary agencies. Since January, 1985, the Department is part of the newly created Ministry of Environment and Forests.

Achievements during 1984-85

19.2 Under Pollution Monitoring and Control, the Central Board, together with the State Pollution Control Boards, has completed a country-wide inventory of pollution from large and medium industries; Minimal National Standards (MINAS) for discharges from specific industries have been formulated, and control measures are being implemented in a phased manner. About 50 per cent of large and medium industries in the country have so far installed pollution control devices. To provide a basis for water quality management, and to work out measures for prevention of pollution from different sources, zoning and classification of all the 14 major inter-State rivers have been completed. Basin-wise inventories based on detailed 'source-to-sink' surveys have been prepared for the rivers Yamuna and Ganga. An Action Plan has been drawn up for preventing pollution of the Ganga. In the area of Environmental Impact Assessment, questionnaires have been prepared for eliciting information on environmental aspects of development projects in selected sectors such as industry, multi-purpose river valley schemes, thermal power generation, shipping and harbours, and mining. A multi-disciplinary team of scientists has made a detailed study on the toxic gas leakage in Bhopal. The team has identified the sensitive and tolerant species of plants. The recommendations arising out of the survey are being followed up with the concerned agencies. A programme to ascertain the long-term effects of the disaster has been initiated. A policy paper for a legislative and institutional framework to regulate the import, manufacture, handling and disposal of hazardous substances (toxic chemicals and micro-organisms) has been formulated. A document recommending Threshold Limit Values (TLV) for selected hazardous substances in the work environment has been prepared.

19.3 Under the Living Resources Conservation programme, maps on environmental themes using latest techniques such as remote sensing have been prepared. The first project in this series is a National Vegetation Map of the country. The Flora of India project of the Botanical Survey of India (BSI) is being restructured for implementation in a phased manner. The Zoological Survey of India (ZSI) has given special emphasis to studies on the ecology and population of rare and endangered mammals and birds. Studies on faunal composition of specified marine, estuarine, fresh water and terrestrial ecosystems are being conducted giving priority to the hitherto unexplored and less explored areas. Environment Monitoring Centres have been established for investigations on the biotic communities as affected by developmental projects. Based on the recommendations of an Advisory Group, 13 sites have been identified for recognition as Biosphere Reserves. Comprehensive project documents have been prepared for delineation of the biosphere reserves in respect of sites in Nilgiris, Namdapha, Nanda Devi and Uttarkhand. A National Conservation Strategy is under formulation to provide a perspective plan for integration of environmental concerns in development projects of various sectors.

19.4 Under the Eco-development programme, Eco-Development Task Forces, consisting of ex-servicemen have been deployed in Uttar Pradesh and Rajasthan for revegetation of degraded areas, especially watersheds for soil conservation and eradication of weeds. Students and voluntary agencies are encouraged to hold Eco-Development Camps for tree plantation, nursery bed preparation, environmental awareness programmes etc. Among the major field action projects farmed out to voluntary organisations are those in the Shivalik Foothills (Punjab), Joshimath and Dasoli Areas of Chamoli District (UP), Haldighati in Udai-pur District (Rajasthan) and Auroville in Pondicherry.

19.5 A distinctive feature of the Environmental Research Programme has been the initiation of coordinated, multi-institutional work in priority areas. These include All India Coordinated Projects on Heavy Metals, Microbial Degradation of Industrial Wastes, Tissue Culture and Seed Biology and Ethnobiology.

19.6 Other major studies relevant in the formulation of environmental policy have been the multi-agency environmental monitoring of the Idukki Multipurpose River Valley project and the Beas Sutlej Link project. Coordinated research programmes have also been initiated for the integrated development of the Western Ghats, Himalayan region and the Ganga Basing. Proposals have been formulated for initiating programmes in the Eastern Ghats and cauvery basin. A programme for the creation of 'Centres of Excellence' was initiated to strengthen the country's environmental re-

search and training base. One such centre now functioning within the Indian Institute of Science, Bangalore has as its primary focus on the Western Ghats. Another Centre on Environment Education has been set up at the Nehru Foundation for Development, Ahmedabad. Centres have been identified and programmes initiated for the network based Institute of Himalayan Environment and Development.

19.7 In the areas of Environmental Education, Training and Awareness, several activities have been initiated, which are addressed to specific target groups such as decision makers, planners, administrators, executives, students and people in general. The particular emphasis of this programme has been on non-formal education through seminars, workshops, refresher courses, group discussions, popular lectures, multi-media campaigns, posters and essay competitions etc. The National Museum of Natural History (NMNH) organises a number of educational programmes, and has expanded its facilities for non-formal education. Feasibility studies for establishing National Institute of Environmental Management covering the conceptual design and functional requirements have been carried out.

19.8 A computerised Environmental Information System (ENVIS), having its focal point within the Department of Environment and a network of ten Distributed Information Centres (DIC) all over the country, has been established. Proposals have been worked out for establishing centres to meet environmental management information needs at the regional and State level. A variety of 'information products' have become available like Directory of Non-Governmental Organisations, 'Paryavaran—Environment News India' etc.

19.9 For promotion of environmental programmes, and integration of environmental considerations in development projects at the State/UT level, guidelines suggesting possible institutional mechanisms, and areas of Centre-State/UT collaborative programmes, have been identified. A National Environmental Advisory Committee with a representation from a wide spectrum of public concern in the field of environment has been constituted for advising the Department to promote public participation in environmental programmes.

Programmes for 1985-86

19.10 Under the Pollution Control activities, the Central Water Laboratory would be strengthened. Waste Recycling Programmes for the treatment of waste water to obtain irrigation water and liquid fertilizer are to be launched in five locations already selected viz., Bhopal, Calcutta, Jamshedpur, Hyderabad and Pondicherry. Comprehensive documentation programmes covering the industrial sectors of Petrochemicals, Pharmaceuticals and Pulp and Paper are nearing completion; a National Implementation Programme for all these industries is planned to be initiated. Work on a national network for ambient air quality monitoring will be intensified. Emission limits have been demarcated for four categories of air polluting industry, namely: Non-Ferrous Metallurgical Industry (Aluminium, Copper and Lead); Petroleum refineries; Chemi-

cal and Allied industry (carbon black and calcium carbide); and Fertilizer (Phosphatic and Mixed) industry. Exhaust emission monitoring is proposed to be conducted for 1000 more vehicles. An Audio-Visual programme on Electroplating Industry from the view point of pollution and its control is planned for production. Four stations would be set up, at Daman and Goa on the West Coast, and Pondicherry and Sagar Islands (West Bengal) on the East Coast, for the programme on Prevention of Coastal Pollution. A comprehensive inventory of existing chemicals and micro-organisms will be prepared, besides creating facilities for generation of data on new substances as they get introduced. A hazardous Substance Control Cell will also be established.

19.11 An Action Plan has been drawn up for pollution Control along crucial stretches of the Ganga. The primary objective of this plan is to provide for appropriate sewage treatment, coupled with systems for recovery of resources as fuel, fertilizer and irrigation water. In the first phase, projects will be taken up in 27 Class-I cities which are directly discharging wastes into the river and are responsible in a major way for the pollution load. A Central Ganga Authority (CGA) headed by the Prime Minister has been set up to oversee the implementation of the Action Plan. A National Environmental Monitoring Organisation (NEMO) is to be set up to monitor the status and trends of environmental quality, thus providing an early warning system.

19.12 Work on two Biosphere reserves is planned. For setting up a National Botanic Garden in Delhi, activities to survey the soil, water and drainage system would be initiated. In addition, preliminary work for establishing four model Botanic Gardens—one each in the northern, southern, eastern and western regions would be initiated. A captive breeding programme for Endangered Species of Plants would be undertaken.

19.13 Various research programmes of the Zoological Survey of India, namely: Mopping Survey of Faunal Resources; Setting up of Insect Pest Identification and Surveillance Centre and Sub-centres; Qualitative Resource Survey and Analysis of Conservation Areas; Setting up of Marine Aquarium and Research Centre at Digha, West Bengal etc. would be undertaken.

19.14 Under the Eco-Development programme, 2 Eco-Development Task Forces, one in Himachal Pradesh (Lahaul-Spiti) and the other in Maharashtra (Koyna Catchment), would be set up. Special programmes would be taken up for celebrating the International Youth Year by involving students in Eco-Development camps.

19.15 Action Oriented Research, Development and Extension Projects in the Himalayas, Western Ghats and Ganga basin would be further intensified; and Projects in Eastern Ghats and the Kaveri basin would be initiated.

19.16 Several field action programmes are to be taken up on restoration of selected eco-systems, regeneration of Himalayan foothills, mined areas reclamation and environmental improvement of hill resorts/pilgrim-centres.

19.17 Under the Environmental Research Programme, in addition to the ongoing activities, several new research programmes would be initiated e.g. an impact of human activities on mountain eco-systems; research on conservation of mangroves; effect of air pollution on plants; studies on Ethnobiology; ecological effects of major engineering works; conservation of tropical forests; etc. The environmental educational programme would lay emphasis on : audio visuals; adult literacy; training of rural masses about environmental protection and awareness; etc. It is also proposed to set up an Environmental Management Institute. The National Museum of Natural History would undertake the setting up of Mobile Museums, Regional Museums in Lucknow and Mysore, Development of School loan kit programme etc. The ENVIS programme would be strengthened and catalytic support would be provided to the new ENVIS centre. Greater thrust and priority would be given to environmental programmes at the State level. A legal cell is proposed to be set up to prepare a comprehensive data base on the Indian environmental situation in its totality, based on which appropriate action can be taken with regard to legislation.

19.18 The outlays for Environment & Ecology are given in the following Table :

TABLE 19.1
Environment and Ecology Outlays

	(Rs. crores)		
	1984-85		1985-86
	BE	RE	Outlay
Deptt. of Environment	13.52@	12.17@	25.75*
Ganga Action Plan	—	—	10.00
Total	13.52	12.17	35.75

@Excluding prevention and control of air and water pollution.

*Including prevention and control of air and water pollution.

Forestry and Wildlife

19.19 Forests, on account of complex organic multidisciplinary interaction with the bio-sphere, play an extremely important role in maintaining the life support system. Thus the National Forest Policy (1952) recommended that the country should aim at coverage of one-third of the total geographical area under forests. Against this, approximately 75 million hectares representing only 23 per cent of the total geographical area of the country has been classified as forests by the State Forest Departments.

19.20 With a view to preserving the fragile Himalayan Eco-system, a Centrally Sponsored Scheme (with 100 per cent financing by the Centre) viz. Soil, Water and Tree Conservation in the Himalayas (Operation Soil Watch), was implemented in 12 States and 2 Union Territories during 1984-85. Further, to meet the fuelwood, fodder and small timber requirements of the rural people in and around the villages, a Centrally Sponsored Scheme (with 50 per cent Central assistance), viz., Social Forestry, including Rural Fuelwood Plantations, was continued in 157 fuelwood deficit districts. In addition, Social Forestry Schemes were also undertaken in different States, supplemented to a substantial extent by external assistance. Under Farm Forestry, seedlings were distributed to the public for planting on the farm boundary and other available spaces. In order to meet the industrial wood requirement, the scheme of Production Forestry, which includes plantation of quick growing species and economic and commercial plantations, was continued.

19.21 The targets and achievements under the various afforestation programmes, are given in Table 19.2 below :—

TABLE 19.2

Progress under different Plantation Programmes during 1984-85

Programme	unit	1984-85	
		Target	Achievement
(i) Afforestation (total seedlings planted)	No. in crores	251	253
(ii) Social Forestry (Area planted)	Lakh hectares	4.50	4.51
(iii) Farm Forestry (Seedlings supplied to the public)	No in crores	120.00	126.08
(iv) Production Forestry (Area planted)	Lakh hectares	1.15	0.98
(v) Soil, Water and Tree Conservation in Himalayas (Operation Soil Watch)	Lakh hectares	0.42	0.42

The progress of all plantation schemes other than production forestry has been quite satisfactory. The survival percentage of the seedlings was found over 60 and in some good areas, particularly in farm forestry, it was as high as 90.

19.22 The task of bringing the optimum area under tree cover has been recognised as a vital need,

and efforts would be further intensified in this direction. During the year 1985-86 the principal thrust would be to improve and increase substantially the vegetal cover by massive afforestation through social forestry, farm forestry and other plantation programmes, as also to enhance the productivity of forest areas and encourage efficient utilisation of the forest produce to meet the basic needs of the people

in respect of fuelwood, fodder, minor forest produce and timber, consistent with the maintenance of ecological equilibrium.

19.23 The Social Forestry Programme will be continued with emphasis on qualitative improvement in the programme content. While Uttar Pradesh and Gujarat will have a second phase of the World Bank aided National Social Forestry (Umbrella) Project, Rajasthan and Himachal Pradesh will also be brought under the purview of this project. This programme would aim at proper choice of species, streamlining of nursery management, appropriate management model for distribution of usufructs and sharing of the harvested forest produce.

19.24 After meeting the needs of the local people, forest produce would be supplied to the industries. Productivity of the forests would be raised by increasing forest cover through artificial regeneration. The working of the Forest Development Corporations would be streamlined. Industries would also be advised to enforce strict economy and discipline in the use of forest raw materials and royalty would be reviewed keeping in view the market price of forest produce.

19.25 As against the achievement of 253 crores of seedlings planted during 1984-85 under afforestation, a target of 280.96 crore seedlings has been fixed for the year 1985-86. If 2000 seedlings are taken equivalent to one hectare of plantation, the total area to be planted in 1985-86 would be approximately 1.40 million hectares.

19.26 While preserving the diverse and rich heritage of forests, forest research would have sharper

focus on increasing the productivity of forests, reducing the cost, utilisation and improvement of the quality of wood and other forest produce. Appropriate scientific and technological inputs, including modern biology and genetic engineering, would be utilised for increasing the bio-mass production per unit of area. Further, apart from forestry education for the in-service candidates, the University level courses would also be initiated. The Council of Forest Research and Education would be suitably restructured to achieve these objectives.

19.27 Presently, data base in Forestry is comparatively weak. There is an urgent need for collection of reliable data about location and content of the forests, composition of the growing stock, growth losses etc. Priority would, therefore, be given to complete the survey of forest resources on scientific lines. Having regard to the utility, cost effectiveness and reliability, new techniques like remote sensing would be utilised for conducting forest survey to improve the data base in forestry.

19.28 In regard to wildlife, the conservation programme as set out in the Wildlife National Action Plan would be implemented.

19.29 A National Wasteland Development Board has been established, whose main objective is to bring wastelands under fuelwood and fodder plantations. The Board will formulate, within the overall national policy perspective, plans and programmes and it would promote, encourage and finance development of wastelands through involvement of non-governmental organisations, voluntary agencies and the public at large including the landless.

CHAPTER 20

CRAFTSMEN TRAINING AND LABOUR WELFARE

Review of Performance in 1984-85

The approved outlay for the Annual Plan 1984-85 was Rs. 60.79 crores comprising Rs. 16.50 crores in the Central sector and Rs. 44.29 crores for the States and Union Territories. The revised estimate of expenditure for the year is Rs. 62.13 crores comprising Rs. 14.10 crores in the Central sector and Rs. 48.03 crores for the States and Union Territories. The actual expenditure in the Central sector is placed at Rs. 13.38 crores (vide Annexure 20.1). The shortfall was accounted for by the delay in the execution of civil works and difficulties regarding sanctioning and filling of posts affecting the implementation of several schemes. However, in the case of the scheme for Rehabilitation of Bonded Labour, the provision of Rs. 4.5 crores made for Central grants to the concerned States was exceeded.

20-Point Programme

20.2 Minimum Wages in agriculture : The minimum wages in agriculture were revised during the year by the Central Government and Governments of Assam, Himachal Pradesh, Karnataka, Kerala, Orissa and Union Territories of Andaman & Nicobar Islands, Delhi and Pondicherry (for Yanam region). As the wages in Haryana, Madhya Pradesh and Punjab are linked with consumer price index numbers, the Governments in these States have increased wages for agricultural labourers with effect from 1-1-1985. The prevalent rates of wages are indicated in Annexure 20.2. For securing better and effective implementation of the Minimum Wages Act in agriculture, in-depth studies were made by the officials of the Labour Ministry through visits to various States. The Labour Bureau is conducting evaluatory studies on the extent of implementation of minimum wages for agricultural workers in certain States.

20.3 In order to ensure better enforcement of minimum wages in agriculture, a Centrally Sponsored scheme for financial assistance to States for strengthening the enforcement machinery was sanctioned on a pilot basis in four States i.e. Madhya Pradesh, Rajasthan, Orissa and Manipur and a provision of Rs. 30 lakhs made for the same in the Annual Plan for 1984-85 in the Central Sector. Under the scheme, financial assistance was to be given to the States towards the cost of salaries and allowances of Rural Labour Inspectors. The inspectors would be appointed for enforcement of minimum wages in agriculture in those blocks where the agricultural workers belonging to Scheduled Castes and Scheduled Tribes happen to be more than 70 per cent. Two hundred inspectors were to be appointed in all in the four States put together. However, no Central grant was released to any of the States during the year as the process of recruitment of Inspectors

by the State Governments concerned was not completed.

20.4 Rehabilitation of bonded labour : The number of bonded labourers identified and freed stood at 177,062 at the end of February, 1985 as per the reports received from the 12 States where the incidence of the problem had been located. The total number of bonded labourers rehabilitated by the time was 134,802 leaving a balance of 42,260. As against the target of rehabilitating 31,326 released bonded labourers fixed for 1984-85, the achievement during the year was 23,382 i.e. 74.6%. The Ministry of Labour have been impressing upon the State Governments that the programme should be viewed in an integrated manner, involving voluntary agencies and social action groups dedicated to the cause of bonded labour and pooling resources from different sources for securing a permanent and effective rehabilitation of freed bonded labourers.

Training

20.5 Training was provided in 38 engineering and 21 non-engineering trades in 1,268 industrial Training Institutes/Centres having a total seating capacity of 2.4 lakhs. Under the Apprenticeship Training Scheme, nearly 1.3 lakh trade apprentices were undergoing training in 135 designated trades as at the end of March, 1985. The number of utilised seats represented about 72 per cent of the total number of seats identified at about 1.8 lakhs. The total number of seats utilised included trainees belonging to some special categories like Scheduled Castes (12,663) Schedule Tribes (3,904) minorities (13,519) physically handicapped (545) and women (3,786). In addition, 14,605 technician apprentices were also undergoing training; this constituted about 56 per cent of the total number of seats located for this category of apprentices. The Advanced Vocational Training System (AVTS) was implemented in the Advanced Training Institutes located at Calcutta, Bombay, Hyderabad, Kanpur, Ludhiana and Madras and in 16 selected Industrial Training Institutes. So far, more than 34,000 workers have been trained under the scheme. Specialised and advanced skill training facilities were also provided in the Advanced Training Institutes for Electronics at Hyderabad and Dehradun, Foreman Training Institutes at Bangalore and Jamshedpur and the Central Staff Training and Research Institute, Calcutta. Experimental courses in the modular pattern of training were also being conducted in 4 Model Industrial Training Institutes set up at Jodhpur, Calicut, Haldwani and Chowdwar.

20.6 In the case of vocational Training for women, training facilities are provided in a 3-tier system, i.e. basic skills, advanced skills and instructor training in a few selected trades with high employment potential

such as dress making, electronics, secretarial practice, embroidery and needle crafts. Short-term specialised courses are also conducted for upgrading of skills and retraining in selected fields. The National Vocational Training Institute for Women (NVTI), New Delhi acts as the apex institute and the Regional Vocational Training Institutes (RVTIs) at Bombay, Bangalore and Trivandrum function as satellite centres. So far, 3,386 persons have been trained in these institutes in regular and short-term courses. The number on roll at the end of March, 1985 was 542. During the year, sanction for the construction of the NVTI building at NOIDA (U.P.) was issued.

20.7 In addition to the Central Institutes run by the Directorate General of Employment and Training (DGE&T), training institutions for women were also functioning in many States. These included 115 Government Industrial Training Institutes (ITIs) Industrial Training Centres (ITCs), 13 private ITIs|ITCs and 70 women wings in the general ITIs with a total seating capacity of 14,573 at the end of March, 1985.

Employment Service

20.8 The network of the National Employment Service comprising 745 employment exchanges through-out the country undertakes registration of job seekers and their reference to the employers against notified demands; this includes 79 University Employment Information and Guidance Bureaux, 16 professional and executive employment exchanges, 22 special employment exchanges for physically handicapped and one special exchange for Plantation Labour. During 1984, 6.2 million persons were registered; 4.1 lakh placements were effected constituting 6.5 per cent of registrations and 57.5 per cent of the vacancies notified. Under the pilot scheme initiated in September 1983, employment exchanges/University Employment Information and Guidance Bureaux in 30 selected districts were to be strengthened with Central assistance for guiding and motivating the job seekers for self-employment. By the end of 1984-85, 23 districts were covered. Some States have been slow in creating the necessary posts accounting for the shortfall in the implementation. The cells already set up motivated and registered about 54,500 persons for self-employment and helped about 2,600 persons in settling in self-employment upto the end of March, 1985.

20.9 The three new Vocational Rehabilitation Centres (VRCs) for physically handicapped started during the Sixth Plan as also the six skill training workshops attached to the VRCs at some centres were not fully operational due to reasons such as delayed starts, unfilled posts and lack of accommodation. The number of persons rehabilitated during 1984 through 13 VRCs was 4,722.

20.10 The Coaching-cum-Guidance Centre (CGC) for Scheduled Castes and Scheduled Tribes at Nagpur started functioning at the beginning of 1984-85 bringing the total number of such centres to 16. Another centre at Guwahati was started although it was not operational by the end of 1984-85, mainly because of delayed start. The other important activities of the Employment Service related to vocational guidance, surveys and studies, etc.

Industrial and Mines Safety

20.11 In the field of industrial safety, the Central Labour Institutes under the Directorate General of Factory Advice Service and Labour Institutes (DGFASLI) were continuing their efforts to provide consultancy services to the industries as well as to the State Governments on matters pertaining to safety and health. The training programmes conducted by these institutes have been geared up. Special in-plant training programmes were also being conducted. The involvement of the management, trade unions and workers was being promoted making them appreciate the problems through deliberations and technical seminars. Efforts were also being made to spread safety awareness in the small scale sector of industries. States were also being advised to take necessary steps to provide treatment facilities for the effluents so as to check air, water and gas pollution.

Other Programmes

20.12 Under the Workers' Education programme importance was given to programmes for workers in rural and unorganised sectors and special need-based programmes. Upto the end of March 1985, 70,323 worker-teachers, 1,197 rural workers educators and about 33.27 lakh workers were trained. Under the Centrally Sponsored Scheme for organising rural workers, 739 honorary rural organisers were appointed in 11 States as against a target of 1,000 covering 13 States and the Union Territory of Pondicherry. The Child Labour Cell in the Ministry of Labour gave financial assistance to voluntary organisations for undertaking certain action oriented projects. A Group of Women Workers was set up in the Ministry of Labour consisting of persons with expertise and experience in the sphere of women's development. During 1984-85, grant-in-aid was released for certain action-oriented|income generating projects connected with the welfare of women labour.

Annual Plan 1985-86

20.13 A total outlay of Rs. 60.95 crores has been approved for the Annual Plan 1985-86 comprising Rs. 18.50 crores in the Central Sector and Rs. 42.45 for the States and UTs (Annexure 20.3).

20.14 A provision of Rs. 5 crores has been made in the Central Sector for the rehabilitation of bonded labour. In addition, the provisions made in the Plans of the concerned States would amount to Rs. 5.27* crores. The target for rehabilitation of released bonded labourers during the year has been set at 30,593. With a view to quickening the rehabilitation programme, delegation of powers of sanction of rehabilitation assistance to the District Collector/District Commissioner in the case of States where considered necessary, is envisaged. A change in the procedure for the release of Central assistance through quarterly releases in advance is also under consideration. Provision has been made for grant-in-aid to voluntary agencies being involved in the work regarding identification of bonded labour.

*Provisional and tentative.

20.15 Emphasis is to be given to improvement in the quality of training through upgradation of ITIs and replacement of obsolete machinery. It is proposed to train 400 persons during the year in the four Model ITIs at Haldwani (U.P.), Choudwar (Orissa) Jodhpur (Rajasthan) and Calicut (Kerala) which aim at a common broad based basic training for a group of trades followed by specialisation in one or more modules, thus making training more flexible with improved quality resulting in better employability of the candidates. It is proposed to set up the Instructional Media Institute (IMI) at Coimbatore to organise preparation, production and dissemination of course material in various fields and provide suitable audio-visual aids and written instructional material. Computer courses are proposed to be introduced in the National Vocational Training Institute (NVTI) for women at New Delhi and Regional Vocational Training Institute for Women (RVTI) at Trivandrum. A new RVTI for women is also proposed to be set up at Hissar in Haryana. The other new training schemes proposed to be under-taken in 1985-86 would include establishment of Numerical Control (NC)/Computerised Numerical Control (CNC) training facilities at the Advanced Training Institute, Madras and expansion and development of Foreman Training Institute, Bangalore.

20.16 It is proposed to make the three new Vocational Rehabilitation Centres (VRCs) set up during the Sixth plan at Sitamarhi, Bhubaneswar and Guwahati and the six skill training workshops attached to some VRCs fully operational. Work is likely to be initiated on the setting up of one new skill training workshop at the VRC at Kanpur. Programmes for the construction of buildings for workshops for VRC, Bombay and for VRC at Delhi are also intended during 1985-86. The Coaching-cum-Guidance Centre (CGC) at Guwahati is proposed to be made fully operational. In addition, there are proposals for a new CGC at Mandi in Himachal Pradesh and strengthening of the existing CGC at Bangalore by providing facilities for typing and shorthand practice to job seekers belonging to SCs and STs. Under the Scheme for Strengthening Employment Exchanges, all the 30 selected districts are proposed to be covered. Before it is extended to other districts, this pilot phase of the scheme would need to be evaluated during the year.

20.17 The other schemes proposed to be taken up during 1985-86 include computerisation of the data processing unit of the DGE&T, improvement of career literature and conduct of survey to ascertain the pro-

portion of employed persons on the live registers of employment exchanges.

20.18 Provision has been made to extend financial assistance to voluntary organisations for undertaking projects for women workers. Provision has also been made for action-oriented projects to be implemented through voluntary organisations for supplementary nutrition, non formal education and vocational training for working children. It is proposed to start a national child labour project for the welfare of child labour. Initially, the project is proposed to be started in two areas which have a large concentration of child labour, namely Mirzapur-Bhadohi area in U.P. and Sivakasi in Tamil Nadu. The project will have emphasis on primary education, health care, nutritional supplementation, deterrent measures against violation of legislative provisions regarding employment of children, intensification of Special Employment Programmes and education and training of women in the target families. As for the Central Board of Workers' Education (CBWE), specific mention may be made of projects pertaining to (a) training of rural educators, (b) training of workers in small-scale unorganised sector, (c) leadership development programme and (d) training of workers in unit level classes.

20.19 In the State sector, stress has been laid on revamping of the industrial Training Institutes (ITIs) by making provision for removing the deficiencies in terms of buildings for the Institutes, hostels and staff quarters, tools, equipment and machinery and trained instructors, with a view to bringing the institutes up to the required level of standards so that quality training could be imparted by them. At some of the ITIs, more seats would be added in the trades which are in demand and the trades which have become unpopular over a period of time would be replaced by the popular trades. New ITIs for women would be set up in some of the States to meet the requirements of training for women. New trades suiting the needs of the rural areas would also be introduced. In the field of employment service, the facilities would be extended to cover more areas and, to some extent, to meet the requirements of rural areas. Holiday homes for the benefit of workers would be set up in some places. The existing labour welfare centres would be geared up and new labour welfare centres, where required, would be established. Provision has also been made to strengthen the enforcement machinery for effective implementation of various labour laws. Considerable emphasis has been placed on measures for industrial safety.

Approved outlays and Actual Expenditure at the Centre for 1984-85

Sl. No.	Name of the Scheme	(Rs. in lakhs)	
		1984-85	
		Approved outlay	Actual Expenditure 1
1.	Training	450.00	193.94
2.	Employment Service	112.00	70.87
3.	Labour Welfare	562.00	326.63
4.	Centrally Sponsored Schemes		
	(i) Rehabilitation of Bonded Labour	450.00	530.02
	(ii) Strengthening of Enforcement Machinery for Implementation of Minimum Wages in Agriculture	30.00	—
	(iii) Organising Rural Workers	46.00	10.43
	Total	1650.00	1131.89²

Note :—1. Expenditure figures have been taken from the records of Pay and Accounts Offices.

2. The amount for civil works (excepting National Labour Institute) is provided in the budget of the Ministry of Works and Housing. Taking the revised estimate in this regard amounting to Rs. 2.06 crores, the total expenditure for the year 1984-85 would come to Rs. 13.38 crores.

Statement of Minimum wages in agriculture for unskilled workers as fixed by the Central Government and reported by the State Governments/Administrations.

(Position as on 15.4.1985)

Name of the State	Date from which effective	Rates of wages	Remarks.
1	2	3	4
Central Government	12-2-85	Rs. 8.50 to 12.75 according to areas.	
Andhra Pradesh	7-9-83	Rs. 7.00 to 18.00 per day according to areas and nature of work.	
Assam	22-2-85	Rs. 12.50 per day	
Bihar	12-4-82	5 kg. paddy or any other kind of grain of the same value besides one time nashta or Rs. 8.50 in cash.	
Gujarat	2-1-82	Rs. 9.00 per day or Rs. 3,200/- per year.	
Haryana	1-5-82	The rates as revised on 1-5-82 were Rs. 10/- + meals or Rs. 14.00 without meals. As, however, the minimum wages are linked with C. P. I., the minimum rates of wages as on 1-1-85 were Rs. 12.48 with meals or Rs. 16.48 without meals.	
Himachal Pradesh	16-8-84	Rs. 10.00 per day	Workers are entitled to 12 1/2% to 25% higher wages in certain areas.
Jammu & Kashmir		Minimum Wages have not been fixed so far.	The State Government has undertaken a survey with a view to fix minimum wages in respect of agricultural workers.
Karnataka	1-2-1985	Rs. 9.50 to Rs. 14.00 per day according to class of work and type of land.	
Kerala	1-6-84	Rs. 12.00 per day for light work and Rs. 15.00 per day for hard-work.	
Madhya Pradesh	1-1-82	Rs. 7.00 plus special allowance per day linked to C. P. I. compiled half-yearly. The wages have been increased w.e.f. 1-1-1985 at the rate of Rs. 9.13 per day.	The rate of special allowance is 45 paise per month per point for every point rise in the average CPI. No. above 447 (1960=100).
Maharashtra	1-2-83	Rs. 6.00 to Rs. 10.00 per day according to areas	
Manipur	1-3-83	Rs. 10.00 to Rs. 10.50 per day according to areas.	
Meghalaya	1-11-83	Rs. 11.00 per day.	
Nagaland	1-2-84	Rs. 10.00 per day	
Orissa	5-11-84	Rs. 7.50 per day.	
Punjab	1-1-82	Rs. 11.00 per day with meals or Rs. 14.00 per day without meals as on 1-1-1982. As however wages have been linked with C. P. I. Nos. with effect from 1-10-84 the rates are Rs. 13.44 per day with meals or Rs. 16.44 per day without meals.	
Rajasthan	1-4-82	Rs. 8.05 to Rs. 9.00 per day according to areas.	
Sikkim		Minimum wages Act, 1948 has not yet been extended to the State.	
Tamilnadu	5-4-83	Rs. 8.00 per day for employees engaged in sowing, plucking of seedlings or weeding and Rs. 10.00 to Rs. 11.00 per day for other operations.	Except where wage rates have been fixed under the Tamil Nadu Agricultural Labour Fair Wages Act, 1969. The State Government has intimated in September, 1984 that the question of repealing the Act is under consideration.

1	2	3	4	5
Tripura		1-8-82	Rs. 8.00 per day	These minimum rates of wages are adjusted each year w.e.f. 1st October on the basis of annual average Agriculture CPI. No. of the previous year (July to June). Accordingly the wages were further revised at the rate of Rs. 13.91 with effect from October, 1983.
Uttar Pradesh		13-7-83	Rs. 8.00 to Rs. 9.50 per day according to areas	
West Bengal		13-8-82	Rs. 10.15 per day (Adult) Rs. 7.29 per day (Child)	
Andaman & Nicobar Islands		19-8-84	Rs. 10.60 per day.	These minimum rates of wages are linked with Consumer Price Index Number. Neutralisation is at the rate of 4 paise per point on the rise or fall of CPI Nos. (Punjab series).
Arunachal Pradesh		1-1-84	Rs. 11.00 per day.	
Chandigarh		12-4-82	Rs. 14.05 per day without meals or Rs. 11.00 per day with meals	
Dadra & Nagar Haveli		August, 83	Rs. 9.00 per day.	
Delhi Administration		1-6-84	Rs. 13.60 per day.	
Goa, Daman & Diu		2-10-83	Rs. 6.75 per day.	
Mizoram			There is no organised agricultural labour. Prevailing rated is Rs. 10.00 per day or so.	
Pondicherry				
(i) Mahe region		23-8-83	Rs. 7.45 to Rs. 9.20 per day according to nature of work.	
(ii) Yaham region		5-4-84	(a) For all kinds of agricultural operations except harvesting.	
			Adult	Non-adult
			Rs. 10.00 per day	Rs. 6.30 per day
			(b) Harvesting.	
			9 Kg. of paddy per day	4½ Kg. of paddy per day.
(iii) Pondicherry		28-11-83	Adult	Non-adult
			Rs. 7/- per day	Rs. 4.20 per day
(iv) Karaikal		5-8-82	7 litres of paddy + Rs. 2.80 per day or Rs. 9.00 per day.	
Lakshadweep			There are no agricultural workers in the Union Territory.	

Annual Plan 1985-86—Craftsmen Training & Labour Welfare Sector

(Rs. in lakhs)

Sl. No.	Group of Schemes	Centre	States	Union Territories	Total
1	2	3	4	5	6
1.	Craftsmen Training	366*	2633	226	3225
2.	Employment Service	100	248	27	375
3.	Labour Welfare	874@	527	57	1458
	Total (1 to 3)	1340	3408	310	5058
4.	Centrally Sponsored Schemes				
	(a) Rehabilitation of Bonded Labour	500	527	—	1027
	(b) Grant-in-aid to voluntary Agencies	10	—	—	10
	Total	1850	3935	310	6095

Note: Break-up of the total outlay by group of schemes in respect of states and Union Territories given in this annexure in column 4 and column 5 are provisional and tentative.

*Includes token provision for Centrally Sponsored scheme Upgradation of State Government ITIs for improving quality of training.

@Includes provisions for Centrally Sponsored Schemes of Organising Rural Workers and Strengthening of Enforcement Machinery for Implementation of Minimum Wages in Agriculture.

CHAPTER 21

THE 20-POINT PROGRAMME

The 20-Point Programme forms an integral part of the Plan and focuses attention on certain high priority areas of national development effort and seeks to impart greater dynamism to these. While the thrust of the Programme continues to be on providing better living conditions for the less privileged sections of the population, it also aims at all-round improvement in productivity.

21.2 Effective implementation and monitoring of the Programme are very essential to achieve the objectives. The Central Ministries and State Governments have taken steps for effective implementation of the Programme and to furnish monthly and quarterly progress reports regularly.

Review of Performance in 1984-85

21.3. Under the Annual Plan for 1984-85, a total outlay of Rs. 12152.54 crores was provided for the implementation of the 20-Point Programme—Rs. 4141.26 crores at the Centre and Rs. 8011.28 crores in the States and Union Territories. The anticipated expenditure during the year is Rs. 11840.88 crores—Rs. 4137.50 crores for the Centre and Rs. 7703.38 crores for the States and Union Territories.

21.4 The performance improved further during 1984-85. It was 90% and above of the Annual Plan target under 21 items viz. (i) Irrigation, (ii) Pulses Production, (iii) Oilseeds Production, (iv) Integrated Rural Development Programme, (v) National Rural Employment Programme, (vi) Scheduled Castes Families, (vii) Scheduled Tribe Families, (viii) Rural Water Supply, (ix) House Sites, (x) Construction, Assistance (xi) Slum Improvement, (xii) Houses for Economically Weaker Sections, (xiii) Village Electrification, (xiv) Pumpsets Energisation, (xv) Tree Plantation, (xvi) Biogas Plants, (xvii) Primary Health Centres, (xviii) Sub-Centres, (xix) ICDS Blocks, (xx) Elementary Education, and (xxi) Adult Literacy. Under the Rural landless Employment Guarantee Programme, the progress recorded was between 80% and 90% of the target. The progress was below 80% in the remaining items. These are : Land Allotment (79%), Bonded Labour (74%) and Sterilisation (68%).

21.5 Although the progress was not uniform and even under all the points and is slow and poor under certain points, the implementation of the Programme, as a whole, had been quite satisfactory. The results during the year were superior in quality because of the much greater monitoring of the Programme undertaken at all levels.

21.6 The machinery for monitoring has been established in all the States/UTs and the concerned Central Ministries. A 20-Point Programme Cell has been

set up in the Planning Commission for continuous monitoring of the Programme. Nodal Officers have been appointed in all the States/UTs and the concerned Central Ministries. In the States/UTs, high level implementation and monitoring committees have been set up under the Chief Ministers and Chief Secretaries at Headquarters. At the district and block level, Committees have also been set up which include Members of Parliament and of State Legislatures irrespective of their party affiliation and other non-official people's representatives. These monitoring bodies suggest measures for removing constraints to effective implementation.

Annual Plan 1985-86

21.7 The 20-Point Programme will continue to lay particular stress on programmes designed to ameliorate the economic and social conditions of the poorer and the less privileged section of the community. Strengthening and expansion of the coverage of Integrated Rural Development Programme, National Rural Employment Programme and Rural Landless Employment Guarantee Programme, implementation of agricultural land ceiling provisions and distribution of surplus land as well as growth of handicrafts, handlooms and small and village industries etc. are intended to increase employment and strengthen the resource base of the rural poor and raise their incomes. The package of poverty alleviation programmes will continue at an accelerated pace. Since incidence of poverty varies among and within the States, there will be a degree of selectivity in terms of approach, outlays and programmes for different areas. The anti-poverty programme will be implemented in an integrated manner, with the simultaneous involvement of various disciplines or departments in a decentralised framework and participation of people at the grass root level through Village Panchayats, Panchayat Samities, Zila Parishads etc. Voluntary organisations will be involved in the implementation and monitoring of the Programme.

21.8 Programmes for economic and social development of Scheduled Castes and Scheduled Tribes will be accelerated. Efforts to identify, release and rehabilitate bonded labourers will be continued intensively and minimum wages for agricultural labourers will be effectively enforced. Particular attention will be given to the provision of safe drinking water to problem villages. The shelterless in the rural areas will be provided house sites and construction assistance.

21.9 Greater stress will be laid on utilisation of the irrigation potential created. Programmes necessary to raise out-put of oilseeds and pulses, with particular attention to the problems of transmission of known techniques for raising productivity in the semi-arid and dry regions of the country, will be undertaken.

A massive programme of greening to reclaim waste land and conserve soil and water resources will be undertaken.

21.10 Stress will be laid on increased utilisation of the existing and newly-created power generation capacity through proper maintenance and minimising transmission and distribution losses. Non-conventional alternative and renewable sources of energy will be fully exploited and developed.

21.11 Measures will be taken to attract students, particularly girls, from poorer sections and to prevent drop-outs. Family Planning will be propagated and promoted on voluntary basis to achieve the 'two child' norm and to reduce infant and maternal mortality through universal immunisation, child care facility and nutrition programme for pregnant women, nursing mothers and children. Measures to provide universal health care through establishment of primary health centres and sub-centres in accordance with the approved norms will be taken. Preventive and curative programmes for bringing down the incidence of leprosy, TB and Blindness will be intensified.

21.12 The public distribution system will be extended and strengthened to supply essential consumer goods to the poorer sections, particularly in inaccessible areas. A strong consumer protection movement

will be developed. Public sector will be modernised and streamlined to increase its efficiency and capacity utilisation. Efforts will be directed at all-round industrial growth, including the development of village and small industries.

21.13 Better publicity arrangements about implementation and monitoring of the Programme will be made through radio, TV and other media. Greater efforts will be made to increase public participation in different aspects of the programme. Consultative Groups of voluntary organisations will be set up in the States to support action of voluntary agencies and widen their role. Efforts will be made to mobilise and organise the weaker sections of the society with a view to achieving the objective of removal of poverty.

21.14 An outlay of Rs. 13117.88 crores—Rs. 4756.30 crores at the Centre and Rs. 8361.58 crores in the States/UTs will be available for the 20-Point Programme during 1985-86. This marks a step up of 11.1% over the last year's outlay. The physical targets under different items of the Programme have been derived from the targets under different developmental heads. The point-wise break-up of financial outlays and physical targets is given in Annexures—21.1 and 21.2 respectively.

20—Point Programme—Financial Outlays

Point	1982-83 (Actuals)						1983-84 (Actuals)						1984-85 (RE)						1985-86 (Outlays)					
	Centre		States/ UTs		Total		Centre		States/ UTs		Total		Centre		States/ UTs		Total		Centre		States/ UTs		Total	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1. Irrigation	12.21	1830.42	1842.63	21.82	2046.05	2067.87	25.36	2201.76	2227.12	28.05	2303.87	2331.92												
Dryland	—	—	—	11.30	—	1.30	4.40	—	4.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Pulses & Oilseeds	24.12	23.50	47.62	24.91	25.00	49.91	34.00	27.00	61.00	184.50	27.00	61.50												
3. (a) IRDP	377.16	377.16	754.32	194.23	211.86	406.09	221.99	329.31	461.30	244.05	183.31	407.36												
b) NREP	—	—	—	189.64	189.82	379.46	236.00	230.95	466.95	230.00	238.59	468.59												
(c) RLEGP	—	—	—	99.90	—	99.90	400.00	—	400.00	400.00	—	400.00												
4. Land Reforms	1.31	60.99	62.30	1.96	64.64	66.60	6.43	57.21	63.66	4.70	63.39	68.09												
5. Minimum Wages for Agricultural Labour	—	0.56	0.56	0.25	1.50	1.75	0.30	1.62	1.92	0.30	1.62	1.92												
6. Bonded Labour Rehabilitation	2.69	6.22	8.91	4.26	4.25	8.51	4.50	5.08	9.58	5.10	5.27	10.37												
7. SC/SF Welfare	173.14	241.35	414.49	155.31	183.72	239.03	171.03	231.58	302.56	42.00	212.40	254.40												
8. Rural Water Supply	151.45	308.35	459.80	265.71	360.51	626.22	292.50	358.15	650.65	300.00	356.71	656.71												
9. House-sites/Construction Assistance	—	92.31	92.3	—	110.51	110.51	—	92.64	92.64	—	99.95	99.95												
10. Slum Improvement	—	27.15	27.15	12.00	35.23	47.23	10.00	41.34	51.34	—	37.83	37.83												
11. Power	984.94	2723.58	3708.52	1173.63	2918.82	4092.45	1743.01	3164.29	4907.30	2395.00	3604.84	5999.84												
12. Afforestation	9.72	9.80	19.52	22.66	173.70	196.36	35.61	208.76	244.37	54.25	239.56	293.81												
Biogas Plants	7.00	—	7.00	13.00	—	13.00	47.52	—	47.52	—	—	—												
13. Family Planning	284.76	—	284.76	382.99	—	282.99	440.02	—	440.02	500.00	—	500.00												
14. Primary Health Care	32.87	67.53	100.40	44.65	91.68	136.33	61.78	113.19	174.97	5.70	173.99	179.69												
15. I.C.D.S. Nutrition	27.51	68.41	95.92	33.76	117.79	151.55	42.00	163.82	205.82	72.00	312.59	384.59												
16. Elementary Education and Adult Literacy	23.74	169.17	192.91	39.73	213.92	253.65	67.18	304.66	371.84	100.58	263.72	364.30												
17. Public Distribution System	0.03	—	0.03	0.46	—	0.46	1.00	—	1.00	0.30	—	0.30												
18. Village and Small Industries	156.52	169.60	326.12	194.07	208.53	402.53	392.85	262.07	654.92	313.00	236.94	549.94												
TOTAL	2269.17	6176.10	8445.27	2776.24	6957.53	9733.77	4137.50	7703.38	11840.88	4756.30	8361.58	13117.88												

Physical Performance Under 20-Point Programme

Point No.	Item	Unit	1982-83		1983-84		1984-85		1985-86
			Target	Achievement	Target	Achievement	Target	Achievement	Target
1	2	3	4	5	6	7	8	9	10
1A	Irrigation Potential	'000 ha.	2375	2515	2370	2480	2310	2279	2320
1B	Dryland Farming	No. of Micro Water sheds	—	—	—	—	4609	7420	8430
2A	Pulses Production	'000 Tonnes	14870	11857	13027	12688	13000	12500	14362 (13500)*
2B	Oilseeds Production	'000 Tonnes	13507	9995	12500	12814	13000	13000	15055* (13600)*
3A	IRDP	No. of families'000	3100	3179	3054	3685	3027	3982	4009**
3B	NREP	Lakh Mandays	3532	3378	3216	3027	3091	3523	2280***
3C	RLEGP	Do.	—	—	—	—	3000	2519	2057***
4	Land Reforms	Acres	530700	253000	284182	190996	198760	158228	125180
6	Bonded Labour	No.s	35828	36019	28804	17143	31326	23382	30593
7A	S. C. Welfare	No. lakh	23.41	20.08	24.98	26.92	25.26	25.81	22.07
7B	S. T. Welfare	No. lakh	9.50	9.20	7.62	9.30	9.61	10.63	8.35
8	Rural Water Supply	No. of Villages	42342	54526	48846	53382	41530	56059‡	28177 (MN)P
9A	House Sites Allotted	Lakhs Nos.	10.43	10.07	8.74	11.78	7.98	10.35	5.80
9B	Construction Assistance	Do.	7.39	3.77	5.56	3.64	4.73	4.32	4.13
10A	Slum Improvement	Lakh Nos.	18.43	17.17	21.20	23.45	18.30	24.15	14.99
10B	EWS Houses	Do.	1.86	1.46	4.05	1.48	1.68	1.84	1.51
11A	Villages Electrified	Nos.	26252	22539	23631	23743	23105	21780	20694@
11B	Pumpsets Energised	Lakh Nos.	3.78	3.18	3.68	3.37	3.86	3.86	3.96
12A	Tree Plantation	Lakhs Nos.	19614	21172	22240	24231	25097	25300	28146
12B	Biogas Plants	Nos.	75835	53797	75000	92590	150410	180430	150000
13	Sterilisation	Lakh Nos.	44.60	39.48	58.12	43.67	58.75	40.21	55.09‡
14A	Primary Health Care	Nos.	209	148	405	1229	192	1155	1446
14B	Sub-Centres	Nos.	7931	7784	9010	6634	9071	8782	6132
15	ICDS Blocks	No.s	320	320	200	200	183	197	206
16A	Elementary Education	'000 Nos.	4092	4070	4702	4985	5029	5251	5132
16B	Adult Education	'000 Nos.	5585	4310	5157	4806	6155	6500	7546

Notes

- *The targets for pulses and oilseeds are operational targets for the States/UTs. National targets are given in brackets.
- **Includes old and new beneficiaries.
- ***Based on discussions with States. According to Planning Commission norms the targets for 1985-86 are 250 million mandays for NREP and 200 million mandays for RLEGP.
- ‡Exclusive of villages to be covered under the Centre's Accelerated Rural Water Supply Programme. The figures for earlier year are inclusive of such villages.
- @Including hamlets.
- §The targets and achievement pertain to States/UTs only. Defence and Railway figures are not included.

CHAPTER 22

MINIMUM NEEDS PROGRAMME

The objective of the Minimum Needs Programme (MNP) is to establish a network of basic services and facilities of social consumption in all areas upto a nationally accepted norm, within a specified time frame. This programme was started in the Fifth Plan and continued in the Sixth Plan. It is basically a State sector programme, but the Centre also provides assistance for some of its components.

22.2 In view of the important of the MNP in raising the standard of living of the rural poor, the programme is continuing in the Seventh Plan also and, with the introduction of 1985-86 Annual Plan, it has entered the 12th year of its implementation.

22.3 The contents of the programme have basically remained the same and include Elementary Education, Adult Education, Rural Health, Rural Water Supply, Rural Roads, Rural Electrification, Rural Housing for Landless, Environmental Improvement of Urban Slums and Nutrition. In addition, another programme of Rural Domestic Cooking Energy is being added to the MNP.

22.4 The outlay provided for the MNP in the Sixth Plan was Rs. 5807 crores (Rs. 4924 crores in the State sector and Rs. 883 crores under the Central Sector Plan). The year-wise expenditure in the plan period is indicated in Table 22.1 below :—

Table 22.1
Sixth Plan Expenditure—MNP
(Rs. crores)

Year	State Sector	Central Sector	Total
1980-81	718.75	129.45	848.20
1981-82	861.10	150.66	1011.76
1982-83	974.99	208.06	1183.05
1983-84	1293.06	362.09	1655.15
1984-85 (Anticipated)	1417.43	431.46	1848.89
Total (Anticipated)	5265.33	1281.72	6547.05

Component-wise expenditure during the Sixth Plan is given in Annexure 22.1. Higher financial performance was possible mainly because of larger investments under the programme of rural water supply, rural health and rural roads as compared to the original outlays provided in the Plan for these components. The outlays provided for each component in the Annual Plan for 1985-86 are given in Annexure 22.2.

PROGRAMME

Elementary Education

22.5 The Sixth Plan target of enrolment of additional 18 million children has been achieved. In fact, the enrolment may be in the neighbourhood of 22 million additional children. The achievement of enrolment during 1984-85 was 52.51 lakh additional children in classes I to VIII as against a target of 50.29 lakhs.

22.6 While the overall enrolment was satisfactory, there is a shortfall in the enrolment of girls in classes I to V, especially in educationally backward States. A scheme of award for excellent performance in the enrolment of girls at elementary stage was introduced in 1983-84 and continued in 1984-85.

22.7 Regarding non-formal education, the Sixth Plan achievement was only 35 lakh children. The programme being experimental, the performance has been low. The non-formal education scheme provides educational opportunities to those who drop out of school or are unable to attend for any reason. The programme of non-formal education would be further expanded during 1985-86.

22.8 With a view to achieving the universalisation of elementary education under the MNP by 1990, about 50 million additional children would have to be enrolled both in the formal and in the non-formal system of education during the Seventh Plan. Of these, 25 million children would be under the formal system and an equal number in the non-formal system. Special measures will be adopted to shift the focus of efforts from enrolment to attainment of learning objectives with emphasis on reduction of drop-out rate and on qualitative improvement. Special attention will also be paid to education of girls and students from poor and backward sections of the community.

22.9 During 1985-86, it is proposed to enrol 52.72 lakh additional children under the formal system of education with an outlay of Rs. 237.19 crores in the State sector and Rs. 37.58 crores in the Central sector.

Adult Education

22.10 It is proposed to cover 100 percent illiterate persons in the age-group 15-35 years by 1990 under the adult education programme. Though no definite target was fixed for the Sixth Plan, it is estimated that about 20 million persons were covered under the adult literacy programme in the Plan. During 1984-85, the enrolment in adult literacy centres was reported at 6.5 million against a target of 6.1 million persons.

22.11 A target of covering 7.55 million persons under adult education has been fixed for 1985-86 with an outlay of Rs. 26.53 crores in the State sector and of Rs. 63.0 crores in the Central sector.

Rural Health

22.12 The health care infrastructure in the rural areas was further augmented and strengthened to pro-

vide primary health facilities to all by 2000 AD. Emphasis has been placed on stepping up training capacity for Auxiliary Nurse Mid-wives (ANMs) and other para-medical staff. The targets and achievements reported under the Minimum Needs Programme during 1984-85 vis-a-vis the achievements made in the previous four years 1980-84 are given in Table 22.2 below :—

Table 22.2

Sixth Plan Achievements—Rural Health

Programme	No. in position as on 1-4-1980	Sixth Plan Target	1980-84 (additional Units set up)	1984-85		Sixth Plan Anticipated Achievement
				Target	Likely Achievement	
1	2	3	4	5	6	7
Sub-Centres	47,517	40,000	26,727	9,071	8,782	35,509
Primary Health Centres	5,477	600	928	192	1,155	2,083
Subsidiary Health Centres	1,922	1,000	1,223	396	396	1,619
Community Health Centres	249	174	301	118	99	400

In view of the importance of Sub-centres, which constitute the nuclei at grass root level, high priority has been given to their establishment. The achievement in the matter of establishment of Primary Health Centres in the Sixth Plan is more than three times the target. High priority was also accorded to the setting up of Community Health Centres. The States, however, have not given due priority to the proper manning of health units and did not utilise the funds provided for this purpose in the Central sector. For 1985-86, it is envisaged that 6,132 additional Sub-Centres, 1,446 additional Primary Health Centres and 298 Community Health Centres would be established. Under the village health guide scheme, which is 100% centrally funded, 3.72 lakh health guides were trained and positioned in 4,170 primary health centres under the programme till the end of 1984-85. Additional 30,000 health guides would be trained during 1985-86.

22.13 Under the multi-purpose workers scheme, health workers appointed under various public health programmes have been trained as multi-purpose functionaries in 340 out of a total of 412 districts upto the end of March 1985. But they could not be deployed by most of the States because of the issues relating to the unification of cadres and rationalisation of pay scales.

22.14 The training of uni-level health workers into multi-purpose workers expected to be concluded by 1983-84 spilled over into the year 1984-85. The programme will continue in 1985-86 also. Besides completion of the backlog, it is proposed to initiate training of male multi-purpose workers and male health assistants required for augmenting infrastructural facilities under the rural health programme.

22.15 Continuing education of staff of primary health centres and training of specialists and para-medical workers required for manning of rural health

care infrastructure, which made no effective progress hitherto, is expected to pick up in 1985-86.

22.16 A sum of Rs. 173.99 crores has been allocated for Rural Health under the Minimum Needs Programme during 1985-86 of which Rs. 170.09 crores are for the States and Rs. 3.90 crores for Union Territories.

Rural Water Supply

22.17 At the time of formulation of the Sixth Plan, the identification of problem villages had not been completed. With the data then available, the Sixth Plan had aimed to cover 1.9 lakh villages; when the task of identification was completed, this figure went upto 2.31 lakhs. A massive programme was launched to provide potable water in most of the identified problem villages. The results have been impressive. Out of the total of 2.31 lakh villages identified as problem villages, 1.92 lakh of such villages and 47,000 other than problem villages are estimated to have been provided with water supply facilities by the end of the Sixth Plan. With this, 54% of the population in rural areas had been covered by the Rural Water Supply Scheme. The achievement was made possible by investment on a scale larger than originally envisaged, amounting to Rs. 2485.33 crores—Rs. 1566.68 crores in the State Sector (MNP) and Rs. 918.65 crores in the Central Sector (Accelerated Rural Water Supply Programme), including Rs. 116.11 crores under the Incentive Bonus Scheme.

22.18 The objective in the Seventh Plan is to cover all the remaining problem villages and to upgrade the level of services in the other villages, both through piped water supply and spot sources. Priority will be given to the left over problem villages.

22.19 A total outlay of Rs. 356.71 crores has been provided in the State Sector (MNP) and Rs. 298.88 crores under the Central Sector (ARP) for the Annual Plan 1985-86.

Rural Electrification

22.20 The MNP objective in the Sixth Plan was to electrify at least 60% of villages in the States and Union Territories and for this purpose, a target of covering 46,464 villages was fixed. However, only 34,480 villages could be covered during the Plan. While the MNP target could not be attained in full for a variety of reasons, the overall achievement in village electrification during the Sixth Plan was 1.20 lakhs against the target of 1.0 lakh.

22.21 In the Seventh Plan, the rural electrification programme under the MNP aims at ensuring a minimum coverage of 65% by all States and Union Territories by the end of 1989-90. The following priorities will be followed in implementing the rural electrification programme :

- (i) All North Eastern hill States and Union Territories.
- (ii) Districts in other States with less than 65% electrification would be covered. The districts having least percentage electrification coverage, will be given priority over others.
- (iii) All areas included in the tribal sub-Plan.

The States in which intensive MNP efforts are required are : Assam, Bihar, Madhya Pradesh, Orissa, Uttar Pradesh, West Bengal and North Eastern States. In 1985-86, it is proposed to electrify 6506 villages under the MNP with an outlay of Rs. 80.68 crores.

Rural Roads

22.22 The long-term objective indicated in the Sixth Plan was to link 100% villages with a population of 1500 and above and 50% villages with a population of 1000 to 1500 with all weather roads by 1990. For hilly, coastal, tribal and desert areas, which are sparsely populated, a 'cluster of villages' approach was to be adopted. In terms of these objectives, 40,000 villages were to be linked, half of them in the Sixth Plan and the balance thereafter. The achievement has been about 18000 villages, in the Sixth Plan period.

22.23 During the Seventh Plan, concerted efforts will have to be made by the States, particularly those below the national average, which include Andhra Pradesh, Himachal Pradesh, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. The outlay for the programme during 1985-86 has been fixed at Rs. 293.27 crores for linking up 3440 villages with roads under the MNP.

22.24 In view of the problems of linking villages under MNP in hilly, tribal and desert areas, the norms for these areas are being liberalised in the Seventh Plan and will be as follows :—

- (i) *Hill Areas*
 - (a) 100% linkage during 10 years' time-frame to villages with population over 500, and
 - (b) 50% linkage during 10 years' time-frame to villages with population between 200 and 500,

(ii) Tribal, Coastal and Desert Areas :

- (a) 100% linkage during 10 years' time-frame to villages with population over 1000, and
- (b) 50% linkage during 10 years' time-frame to villages with population between 500 to 1000.

Rural Housing for Landless Workers

22.25 The MNP and 20-Point Programme give high priority to the rural house-sites-cum-house construction scheme. During 1984-85, house-sites were provided to 10,35,225 families as against the target of 7,97,856 families. As regards construction assistance, the achievement was about 91% of the target.

22.26 During the Sixth Plan period as a whole, 54.32 lakh families have been provided house sites as against the target of 67.70 lakh families. The number of families provided construction assistance is estimated at 18.82 lakhs against the target of 36 lakhs.

22.27 An outlay of Rs. 99.95 crores has been provided for the Annual Plan 1985-86 for the scheme of house-site-cum-construction assistance. A target of providing house sites to 5.80 lakh families and construction assistance to 4.13 lakh families has been fixed for the year.

Slum Improvement

22.28 The Sixth Plan target was to cover 10.0 million slum dwellers under the scheme of environmental improvement of urban slums. During the first four years of the Sixth Plan, the scheme had benefited 6.75 million persons. The achievements during 1984-85 is reported at 2.42 million. Thus, a total of 9.17 million slum dwellers have been covered under the scheme in the Sixth Plan period. The performance picked up during the later years of the Sixth Plan as a result of constant monitoring of the scheme in the States and U.Ts. The norms of assistance under the scheme have also been revised. It has been decided to step-up the per capita expenditure to Rs. 300 from the rate of Rs. 250 fixed in 1984. A total provision of Rs. 37.83 crores has been made for the scheme in the Annual Plan 1985-86. The target is to cover 14.99 lakh slum population.

Nutrition

Special Nutrition Programme (SNP)

22.29 The Special Nutrition Programme (SNP) covers the pre-school children in the age-group-0-6 years and pregnant women and nursing mothers. The Programme provides supplementary feeding of 300 calories with 8-12 grams of protein for children and 500 calories with 25 grams of protein for mothers, for 300 days in a year. The programme is operated through special nutrition programme centres and the Integrated Child Development Scheme. From 8 million beneficiaries at the beginning of the Sixth Plan, the coverage of beneficiaries increased to 11 million, in-

cluding 6 million beneficiaries under the Integrated Child Development Scheme by March, 1985. During 1985-86, it is proposed to increase the coverage to 12 million beneficiaries, including 8 million beneficiaries within ICDS projects, and, wherever possible, the SNP Centres would be brought within the ambit of ICDS.

Mid-Day Meals (MDM) Programme

22.30 The Mid Day Meals (MDM) Programme is meant for school-going children in the age-group of 6-11 years and it provides supplementary food of 300 calories with 8-10 grams of protein for 200 days in a year. By the end of the Sixth Plan, 200 million children were getting nutrition support.

22.31 During the year 1985-86, the main emphasis under the MDM Programme would be on its consolidation rather than expansion.

Rural Domestic Cooking Energy

22.32 In view of the rapidly dwindling sources of domestic cooking energy in rural areas, especially fire-wood, crop waste and animal dung, it is proposed to introduce a programme under the MNP which would include the two on-going schemes of Rural Fuel-wood Plantation (Social Forestry) and the Improved Chullahs Programme which were in operation in the Sixth Plan. The Programme under rural fuel-wood plantation would include distribution of seedlings to the rural families so as to ensure adequate fuel-wood for meeting their cooking needs. Under the

Chullah programme, improved Chullahs would be installed in the villages through subsidies and financial assistance. Besides, training courses would be organised to improve the design and thermal efficiency of Chullahs.

22.23 During the Sixth Plan, an outlay of Rs. 97.21 crores was provided for the Rural Fuel Wood Plantation Scheme in the Central sector. Year-wise expenditure is given below:

Year	Expenditure
	(Rs. crores)
1980-81	4.27
1981-82	4.88
1982-83	9.72
1983-84	12.85
1984-85	19.00
Total	50.72

Details of the Scheme for 1985-86 are being worked out. Similarly, for Improved Chullahs, an expenditure of Rs. 574 lakhs was incurred during the two years 1983-84 and 1984-85. The scheme was introduced only in December 1983. By the end of 1984-85, 8.12 lakh Chullahs had been installed. During 1985-86, It is proposed to instal 6 lakh improved Chullahs, conduct 3000 training course and make 6000 villages smokeless. An allocation of Rs. 5 crores is proposed for the programme in the Central Sector and of Rs. 1.25 crores in the State Sector.

Annexure-22.1

Sixth Plan Outlay and Expenditure—Minimum Needs Programme (1980-85)

Programme	(Rs. crores)						
	Outlay 1980-85	1980-81	Expenditure 1981-82	1982-83	1983-84	Outlay 1984-85	Anticipated Expenditure 1984-85
1	2	3	4	5	6	7	8
1. Elementary Education	851.00 + 54.00	97.94 + 4.80	108.18 + 7.44	143.43 + 9.26	196.54 + 14.71	256.01 + 22.61	281.87 + 25.98
2. Adult Education	68.00 + 60.00	9.38 + 6.08	9.89 + 8.92	11.28 + 14.48	17.38 + 25.02	21.40 + 40.00	22.79 + 41.20
3. Rural Health	408.00 + 169.00	48.05 + 19.57	62.84 + 24.30	67.53 + 32.87	91.68 + 44.65	109.76 + 63.43	113.19 + 61.78
4. Rural Water Supply	1407.00 + 600.00	211.91@ + 99.00	259.54@ + 110.00	307.79 + 151.45	360.51 + 265.71	366.08 + 292.50	358.15 + 292.50
5. Rural Electrification	301.00	43.41	51.04	52.94	54.63	46.20	47.23
6. Rural Roads	1165.00	203.25	232.18	204.15	308.79	211.78	313.24
7. Housing for Landless	354.00	54.54	76.54	92.31	110.51	119.71	92.64
8. Improvement of Urban Slums	151.80	21.69	25.52	27.15	35.23 + 12.00	42.32 + 10.00	41.34 + 10.00
9. Nutrition	219.00	28.58	35.37	68.41	117.79	139.72	146.98
10. Total : State Sector	4924.00	718.75	861.10	974.99	1293.06	1312.99	1417.43
Total : Central Sector	+ 883.00	129.45	150.66	208.06	362.09	428.54	431.46
GRAND TOTAL :	5807.00	848.20	1011.76	1183.05	1655.15	1741.53	1848.89

@Tentative

+Represents Central Sector Outlay/Expenditure.

Minimum Needs Programme—Approved Outlays—1985-86
States and Union Territories

S. No.	States/U. Ts.	(Rs. in lakhs)										
		1	2	3	4	5	6	7	8	9	10	11
		Elementary Education	Adult Education	Rural Health	Rural Water Supply	Rural Electrification	Rural Roads	Rural Housing	Slums Improvement	Nutrition	Total	
1.	Andhra Pradesh	1200	215	1000	1504	—	450	4600	450	372	9791	
2.	Assam	1605	110	500	1810	1007	800	250	40	120	6242	
3.	Bihar	2100	400	834	1771	870	3400	500	100	558	10533	
4.	Gujarat	700	155	540	1237	—	1200	750	65	11272	15919	
5.	Haryana	700	25	547	2249	—	5	65	140	429	4160	
6.	Himachal Pradesh	210	25	280	1411	57	833	—	15	30	2863	
7.	Jammu & Kashmir	310	32	425	1852	7	525	50	40	150	3391	
8.	Karnataka	600	120	1000	1555	—	1045	1500	209	2445	8465	
9.	Kerala	409	40	500	1511	—	500	200	50	538	3748	
10.	Madhya Pradesh	1600	200	900	2506	1500	2000	506	230	608	10050	
11.	Maharashtra	983	390	3500	3722	—	660	400	700	944	14904	
12.	Manipur	155	35	75	440	120	275	—	70	30	1200	
13.	Meghalaya	160	10	180	429	122	145	—	10	46	1102	
14.	Nagaland	135	15	75	247	58	50	—	—	66	646	
15.	Orissa	1900	110	545	821	500	1137	100	—	200	5343	
16.	Punjab	392	10	650	874	—	—	74	65	252	2317	
17.	Rajasthan	1350	100	468	1204	422	800	125	70	108	4647	
18.	Sikkim	260	10	60	261	—	300	—	5	45	941	
19.	Tamil Nadu	1200	128	840	2468	—	800	350	500	10337	16623	
20.	Tripura	436	16	90	287	—	500	35	40	275	1679	
21.	Uttar Pradesh	2000	150	3000	2014	2300	12000	310	350	843	22947	
22.	West Bengal	2000	267	1000	700	761	650	135	400	870	6783	
TOTAL : ALL STATES		20405	2563	17009	34478	7724	28077	9950	3550	30538	154294	
1.	A. & N. Islands	250	3	35	109	—	175	—	3	12.50	587.50	
2.	Arunachal Pradesh	100	30	150	440	194	600	—	—	27.50	1541.50	
3.	Chandigarh	120	6	28	—	—	—	—	—	48.50	202.50	
4.	Dadra & Nagar Haveli	40	1	12.90	16	—	25	2	—	8.50	105.40	
5.	Delhi	2438	30	—	189	—	—	10	203	523	3390.00	
6.	Goa, Daman Diu	100	4	25	113	—	8	6	5	20	281.00	
7.	Lakshadweep	16	1	9	30	—	12	—	—	5	73.00	
8.	Mizoram	130	13.5	110	259	150	400	2	5	33	1102.50	
9.	Pondicherry	120	2	20	37	—	30	25	23	43	297.00	
Total : U. Ts.		3314	90.5	389.5	1193	344	1253	45	233	721	7580.40	
Total : States & U. Ts.		23719	2653.5	17398.90	35671	8068	29327	9995	3783	31259	161874.40	
Central Sector		3758	6300	570.00	29888	—	—	—	—	—	40516.00	
GRAND TOTAL		27477	8953.5	17968.90	65559	8068	29327	9995	3783	31259	202390.40	